DRAFT
PROGRAM ENVIRONMENTAL IMPACT REORT
(VOLUME 2 – TECHNICAL APPENDICES)

FOR THE

AIRPORT GATEWAY SPECIFIC PLAN

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Air Quality Analysis

Airport Gateway Specific Plan

AIR QUALITY IMPACT ANALYSIS

CITIES OF SAN BERNARDINO AND HIGHLAND

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LIST OF ABBREVIATED TERMS

%	Percent
°F	Degrees Fahrenheit
(1)	Reference
µg/m^3	Microgram per Cubic Meter
1992 CO Plan	*1992 Federal Attainment Plan for Carbon Monoxide*
1993 CEQA Handbook	*SCAQMD's CEQA Air Quality Handbook (1993)*
2016-2040 RTP/SCS	*2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*
AB 2595	California Clean Air Act
AGSP	Airport Gateway Specific Plan
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BC	Black Carbon
Brief	Brief of Amicus Curiae by the SCAQMD in the Friant Ranch Case
C_2Cl_4	Perchloroethylene
C_4H_6	1,3-butadiene
C_6H_6	Benzene
C_2H_3Cl	Vinyl Chloride
C_2H_4O	Acetaldehyde
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CEQA Guidelines	*2019 CEQA Statute and Guidelines*
CFR	Code of Federal Regulations
CH_2O	Formaldehyde
CO	Carbon Monoxide

COH	Coefficient of Haze
COHb	Carboxyhemoglobin
Cr(VI)	Chromium
CTP	Clean Truck Program
CY	Cubic Yards
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EC	Elemental Carbon
EIR	Environmental Impact Reports
EMFAC	EMissions FACtor Model
EPA	Environmental Protection Agency
ETW	Equivalent Test Weight
GHG	Greenhouse Gas
GVWR	Gross Vehicle Weight Rating
H_2S	Hydrogen Sulfide
HDT	Heavy Duty Trucks
HI	Hazard Index
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
lbs	Pounds
lbs/day	Pounds Per Day
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LST	Localized Significance Threshold
LST Methodology	Final Localized Significance Threshold Methodology
MATES	Multiple Air Toxics Exposure Study
MCY	Motorcycles
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measures
mph	Miles Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2	Nitrogen
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards

NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
O_2	Oxygen
O_3	Ozone
O_2 Deficiency	Chronic Hypoxemia
OBD-II	On-Board Diagnostic
OPR	Office of Planning and Research
Pb	Lead
PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
POLA	Port of Los Angeles
POLB	Port of Long Beach
ppm	Parts Per Million
Project	Airport Gateway Specific Plan
RECLAIM	Regional Clean Air Incentives Market
RFG-2	Reformulated Gasoline Regulation
ROG	Reactive Organic Gases
SB	Senate Bill
SBIA	San Bernardino International Airport
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIPs	State Implementation Plans
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
SoCalGas	The Southern California Gas Company
SR-210	State Route 210
SRA	Source Receptor Area
SRA 34	SCAQMD Central San Bernardino Valley 1
TAC	Toxic Air Contaminant
TDM	Transportation Demand Management
Title 24	California Building Code
TITLE I	Non-Attainment Provisions
TITLE II	Mobile Sources Provisions

TIS	*Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland*
TSF	Thousand Square Feet
UFP	Ultra Fine Particles
UP	Union Pacific
UTRs	Utility Tractors
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
vph	Vehicles Per Hour

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Airport Gateway Specific Plan Air Quality Impact Analysis* (AQIA) are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for each potential air quality impact under CEQA before and after any required mitigation measures (MM) described below.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	*Potentially Significant*	*Significant and Unavoidable*
Regional Operational Emissions	3.5	*Potentially Significant*	*Significant and Unavoidable*
Localized Emissions	3.6	*n/a*	*n/a*
CO "Hot Spot" Analysis	3.7	*Less Than Significant*	*n/a*
Air Quality Management Plan	3.8	*Potentially Significant*	*Significant and Unavoidable*
Sensitive Receptors	3.9	*Less Than Significant*	*n/a*
Odors	3.10	*Less Than Significant*	*n/a*
Cumulative Impacts	3.11	*Potentially Significant*	*Significant and Unavoidable*

ES.2 REGULATORY REQUIREMENTS

There are numerous requirements that development projects must comply with by law, and that were put in place by federal, State, and local regulatory agencies for the improvement of air quality. The two most pertinent regulatory requirements that apply to the proposed Project and which are required by South Coast Air Quality Management District (SCAQMD) Rules that are currently applicable during construction activity for this Project are Rule 403 (Fugitive Dust) (2) and Rule 1113 (Architectural Coatings) (3). As Because they are required by law, credit for Rule 403 and Rule 1113 have been taken in the analysis.

SCAQMD RULE 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.

SCAQMD RULE 1113

This rule serves to limit the Volatile Organic Compound (VOC) content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the SCAQMD must comply with the current VOC standards set in this rule.

ES.3 CONSTRUCTION-SOURCE EMISSIONS MITIGATION MEASURES

The Project construction-source emissions would exceed SCAQMD regional thresholds for VOC and nitrogen oxides (NO_X) emissions. The following mitigation measures are designed to reduce Project construction-source VOC and NO_X emissions. After application of MM AQ-1, Project construction-source emissions impacts would be less than significant.

MM AQ-1

The Construction Contractor shall ensure that off-road diesel construction equipment complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards or equivalent and shall ensure that all construction equipment is tuned and maintained in accordance with the manufacturer's specifications.

MM AQ-2

Future AGSP Developments shall be required to utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, Future AGSP Development may utilize building materials that do not require the use of architectural coatings.

MM AQ-3

Plans, specifications and contract documents shall direct that a sign must be posted on-site stating that construction workers shall not idle diesel engines in excess of five minutes.

MM AQ-4

During site preparation and grading activity all actively graded areas within each proposed project site shall be watered at 2.1-hour watering intervals (e.g., 4 times per day) or a movable sprinkler system shall be in place.

MM AQ-5

Future AGSP Developments shall be required to install gravel pads at all access points to prevent tracking of mud onto public roads.

MM AQ-6

Future AGSP Developments shall be required to install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., Install wheel shakers, wheel washers, and limit site access).

MM AQ-7

Future AGSP Developments shall be required to cover all materials transported off site. Materials shall be effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

MM AQ-8

Future AGSP Developments shall be required to sweep all streets at least once a day using SCAQMD Rule 1186 certified street sweepers if visible soil materials are carried to adjacent streets.

MM AQ-9

Future AGSP Developments shall be required to post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.

MM AQ-10

Future AGSP Developments shall be required to formulate a high wind response plan for enhanced dust control if winds are forecast to exceed 15 mph in any upcoming 24-hour period.

MM AQ-11

Future AGSP Developments shall be required to use electric or alternative fueled construction equipment where technically feasible and/or commercially available, where the electric or alternatively fueled equipment can perform comparably to gasoline or diesel fueled equipment.

MM AQ-12

Future AGSP Developments shall be required to use zero emissions or near-zero emissions trucks, if and when feasible; at a minimum, future development shall be required to use 2010 and newer haul trucks (e.g., including material delivery trucks and soil import/export, and trucks required for operation).

MM AQ-13

During the City's review process for individual project applications within the Specific Plan, the individual projects shall conduct modeling of the regional and the localized emissions (NO_x, CO, PM_{10}, and $PM_{2.5}$) associated with the construction activities estimated for the proposed individual developments one acre or larger. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, applicable mitigation would be required. For implementing projects within the City, the individual projects shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed individual

projects. A regional and localized emissions analysis will be required for all projects subject to CEQA discretionary actions.

ES.4 OPERATIONAL-SOURCE EMISSIONS MITIGATION MEASURES

MM AQ-14

During the City's review process for individual project applications within the Specific Plan, the individual projects shall conduct modeling of the regional and the localized emissions (NO_x, CO, PM_{10}, and $PM_{2.5}$) associated with the operational activities estimated for the proposed individual developments one acre or larger. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, applicable mitigation would be required. For implementing projects within the City, the individual projects shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed individual projects. A regional and localized emissions analysis will be required for all projects subject to CEQA discretionary actions.

MM AQ-15

During the City's review process for individual project applications within the Specific Plan, projects that generate diesel truck trips or other toxic air contaminants (TACs), shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of CEQA and the SCAQMD. If the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms.

MM AQ-16

Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five (5) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the Lead Agency shall conduct a site inspection to ensure that the signs are in place.

MM AQ-17

Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the Lead Agency demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.

MM AQ-18

The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided. As agreed to by the Applicant and Lead Agency, final designs of Project buildings shall include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations.

MM AQ-19

As agreed to by the Applicant and Lead Agency, final Project designs shall provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations.

MM AQ-20

Each building operator will be required to support and encourage ridesharing and transit incentives for the construction crew by providing crews with the needed resources to organize rideshares, such as bulletin boards or email announcements. The Construction Contractor will also fully or partially subsidize transit fares or passes for the construction crew members who can feasibly use transit.

MM AQ-21

Future AGSP Developments shall be required to utilize on-road heavy-duty diesel trucks with a gross vehicle weight rating greater than 14,000 pounds with a 2010 model year engine or newer or to be equipped with a particulate matter trap, as available.

MM AQ-22

Future AGSP uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use.

MM AQ-23

Future AGSP Developments shall be required to comply with the following: Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the South Coast Air Quality Management District.

MM AQ-24

Future AGSP Developments shall be required to comply with the following: All on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity.

MM AQ-25

Future AGSP Developments shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

MM AQ-26

Future AGSP Developments shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

MM AQ-27

Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 403 – Fugitive Dust. This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust. Applicable dust suppression requirements from Rule 403 are summarized below.

- Nontoxic chemical soil stabilizers shall be applied according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Active sites shall be watered at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered, or at least 0.6 m (2 ft) of freeboard (vertical space between the top of the load and top of the trailer) maintained in accordance with the requirements of California Vehicle Code (CVC) Section 23114.
- Construction access roads shall be paved at least 30 m (100 ft) onto the site from the main road.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

MM AQ-28

Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 1113 – Architectural Coatings. No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in the Rule. A list of manufacturers of low/no-VOC paints is provided at the following SCAQMD website: *http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/reporting-and-support-documents/rule-314-manufacturers.pdf?sfvrsn=4* All paints will be applied using either high volume low-pressure spray equipment or by hand application.

MM AQ-29

Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 1301 – General. This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in

attainment of the NAAQS, while future economic growth within the South Coast Air Quality Management District is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).

MM AQ-30

Building operators will require (by contract specifications) that equipment, including heavy-duty equipment, motor vehicles, and portable equipment, be turned off when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes. Nighttime (after 10:00 PM) truck idling would not be permitted.

MM AQ-31

Future AGSP Developments shall be required to meet or exceed 2016 Title 24, Part 6 Standards and meet Green Building Code Standards for future structures.

MM AQ-32

Future AGSP Developments shall be required to utilize faucets, toilets and showers that are low-flow fixtures that would reduce indoor water demand by 20% per CalGreen Standards.

MM AQ-33

Future AGSP Developments shall be required to comply with a recycling programs that reduces waste to landfills by a minimum 75 percent per AB 341.

MM AQ-34

Future AGSP Developments shall be required to utilize high-efficiency lighting be installed that is at least 34% more efficient than standard lighting.

MM AQ-35

Future AGSP Developments shall be required to utilize light-colored paving and roofing materials.

MM AQ-36

Future AGSP Developments shall be required to utilize water-based or low VOC cleaning products.

MM AQ-37

Future AGSP Developments shall be required to coordinate with Edison to install EV Charging Stations incrementally over the life of the project as required by future demand. The initial installation of EV Charging Stations shall be determined though consultation between the Developer, Southern California Edison, and the City of Highland and/or San Bernardino.

MM AQ-38

Future AGSP Developments shall require trucks to utilize truck routes identified in the Airport Gateway Specific Plan. In order to enforce this requirement, truck routes will be clearly marked with trailblazer signs, so that trucks will not enter residential areas.

MM AQ-39

Future AGSP Developments shall be required to retain a landscaping contractor(s) that uses electric landscaping equipment, if contactors with electric equipment readily available are feasible to retain within the immediate project area.

MM AQ-40

Future AGSP Developments shall be required to include a contract specification in the street sweeping contract that uses electric or alternatively fueled sweepers with HEPA filters. If contactors with such equipment are not available readily in the project area, the Developer shall document this fact and the cleanest sweepers available in response to this contract specification shall be used.

MM AQ-41

Future AGSP Developments shall be required to maximize the planting of trees in landscaping and parking lots and when recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply.

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1 INTRODUCTION

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed Airport Gateway Specific Plan (Project). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the SCAQMD.

1.1 SITE LOCATION

The Airport Gateway Specific Plan Project is located immediately north of the San Bernardino International Airport (SBIA) west. The Specific Plan area is bounded generally by 6th Street and Highland Creek on the north, 3rd Street and the SBIA on the south, State Route 210 (SR-210) on the east, and Tippecanoe Avenue on the west as shown on Exhibit 1-A. North of the Specific Plan area (on the north side of 6th Street) is bordered by a mix of low- and medium-density residential uses and vacant parcels, as well as several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park and the Highland Branch Library.

1.2 PROJECT DESCRIPTION

The Project area covers approximately 679.2 acres. The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194.2 acres). The Specific Plan area is depicted on Exhibit 1-B.

The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area. The Airport Gateway Specific Plan (AGSP) would replace the existing uses within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail/hotel uses. Development of the Specific Plan area will be accomplished over time, as market conditions allow, and as developers are successful in assembling individual parcels into parcels large enough for the allowed uses.

This analysis is intended to describe emission impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP

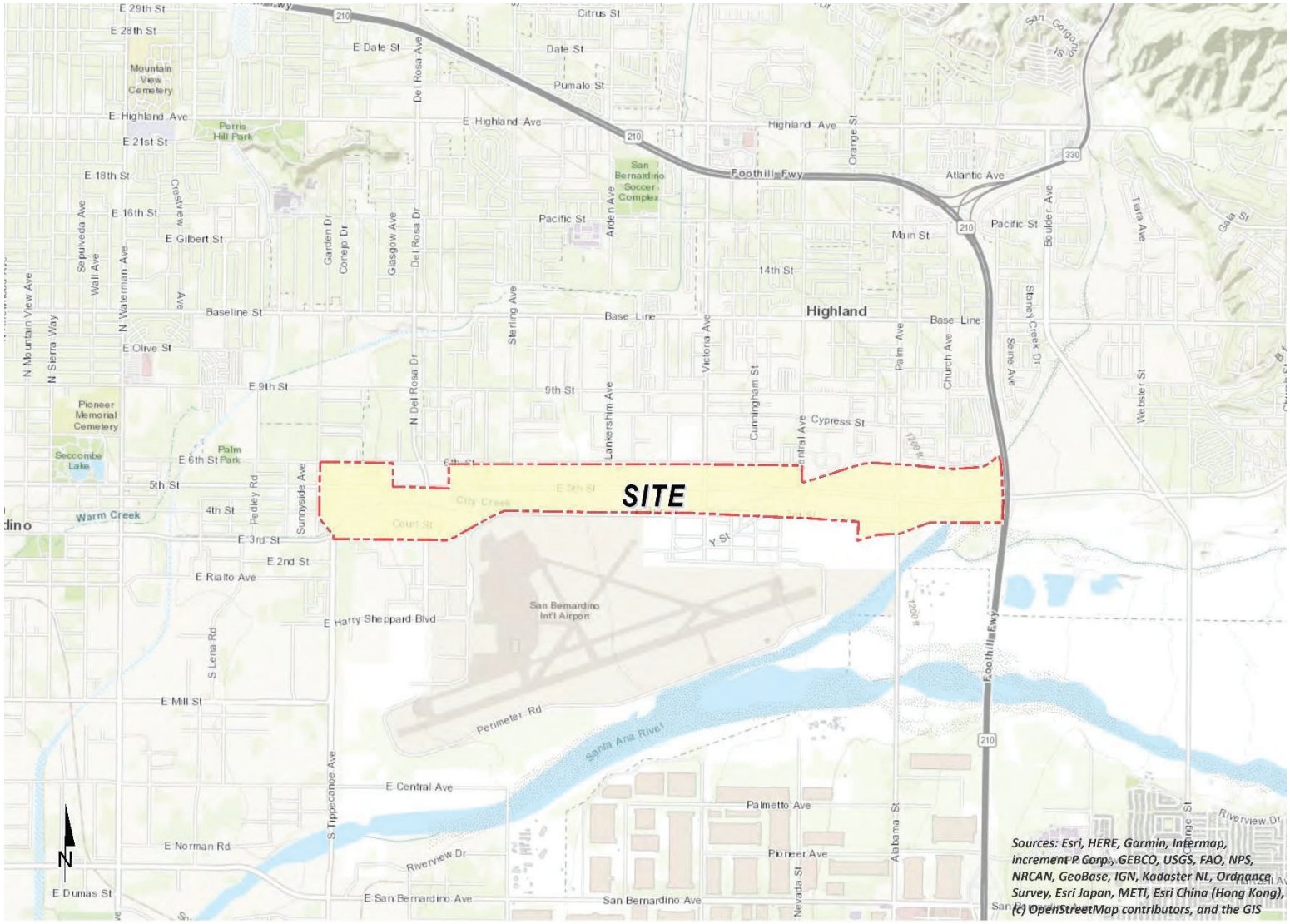
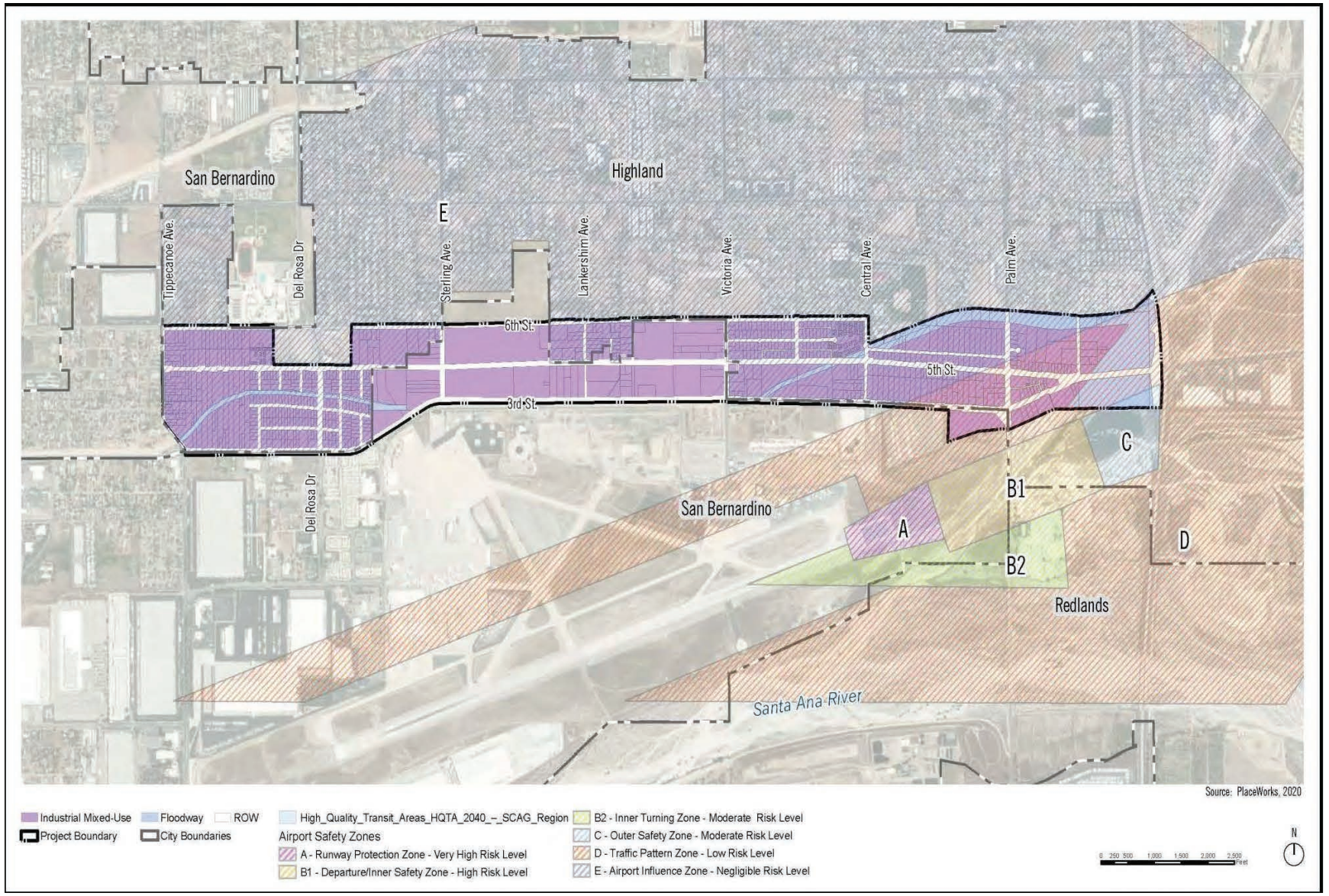


EXHIBIT 1-B: SITE PLAN



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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (4). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As previously stated, the Project site is located within the SCAB, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bounded by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO_2) to sulfates (SO_4) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los

Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_X and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB is located in a coastal plain with connecting broad valleys and

low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (5):

TABLE 2-1: CRITERIA POLLUTANTS

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O_3), motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O_2) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O_2 transport and competing with O_2 to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O_2 supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O_2 deficiency) as seen at high altitudes.

Criteria Pollutant	Description	Sources	Health Effects
SO_2	SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms SO_4. Collectively, these pollutants are referred to as sulfur oxides (SO_X).	Coal or oil burning power plants and industries, refineries, diesel engines	A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.

Criteria Pollutant	Description	Sources	Health Effects
NO_X	NO_X consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with O_2. Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO_X is typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring station.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.
O_3	O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer	Formed when reactive organic gases (ROG) and NO_X react in the presence of sunlight. ROG sources include any source	Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O_3 effects. Short-term exposure (lasting for a

Criteria Pollutant	Description	Sources	Health Effects
	months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.	that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.	few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.
Particulate Matter	PM_{10}: A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility (haze) which is caused by the scattering of light	Sources of PM_{10} include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO_X, SO_X,	A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of

Criteria Pollutant	Description	Sources	Health Effects
	and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, it should be noted that PM_{10} is considered a criteria air pollutant. $PM_{2.5}$: A similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO_4 formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant.	organics). Incomplete combustion of any fuel. $PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_X, SO_X, organics).	asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
VOC	VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not	Organic chemicals are widely used as ingredients in household products. Paints, varnishes and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products.	Breathing VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.

Criteria Pollutant	Description	Sources	Health Effects
	form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.	
ROG	Similar to VOC, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project does not include	Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Criteria Pollutant	Description	Sources	Health Effects
	operational activities such as metal processing or Pb acid battery manufacturing. As such, the Project is not anticipated to generate a quantifiable amount of Pb emissions.		Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves (6).	Odors can come from many sources including animals, human activities, industry, natures, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.5 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (7).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May 4, 2016 and are presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ do not exceed standards. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, CARB has implemented a State Implementation Plan (SIP). The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (8).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	**Averaging Time**	**California Standards [1]**		**National Standards [2]**		
		Concentration [3]	**Method [4]**	**Primary [3,5]**	**Secondary [3,6]**	**Method [7]**
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			
See footnotes on next page …						

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TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.6 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: CO, Pb, O_3, particulate matter (PM_{10} and $PM_{2.5}$), NO_2, and SO_2 which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district (9). On February 21, 2019, CARB posted the 2018 amendments to the state and national area designations. See Table 2-3 for attainment designations for the SCAB (10). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SCAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb[1]	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB
"-" = The national 1-hour O_3 standard was revoked effective June 15, 2005.

2.7 LOCAL AIR QUALITY

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the district in order to provide Southern California residents about the air quality conditions. The Development Site is located within the SRA 34 (11). Within SRA 34, the SCAQMD Central San Bernardino Valley 1 monitoring station is located 0.7 miles west of the Development Site and is the nearest long-term air quality monitoring site for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$.

The most recent three (3) years of data available is shown on Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Development Site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ for 2017 through 2019 was obtained from the SCAQMD Air Quality Data Tables (12). Additionally, data for SO_2 has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations.

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2017-2019

Pollutant	Standard	YEAR		
		2017	2018	2019
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.137	0.141	0.124
Maximum Federal 8-Hour Concentration (ppm)		0.118	0.111	0.109
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	49	38	41
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	49	69	67
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.6	1.9	2.7
Maximum Federal 8-Hour Concentration	> 20 ppm	1.3	1.1	1.0
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.069	0.063	0.076
Annual Average		18.3	18.3	17.2
PM_{10}				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 150 $\mu g/m^3$	75	64	88
Annual Federal Arithmetic Mean ($\mu g/m^3$)		39.3	34.1	34.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 $\mu g/m^3$	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 $\mu g/m^3$	7	9	12
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 35 $\mu g/m^3$	39.2	29.2	46.5
Annual Federal Arithmetic Mean ($\mu g/m^3$)	> 12 $\mu g/m^3$	12.0	11.1	10.8
Number of Days Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	1	0	0

ppm = Parts Per Million
$\mu g/m^3$ = Microgram per Cubic Meter
Source: Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained from SCAQMD Air Quality Data Tables.

2.8 REGULATORY BACKGROUND

2.8.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and Pb (13). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (14). The CAA also mandates that states submit and implement SIPs for local areas not meeting these

standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (15) (16). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 2-3 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

2.8.2 CALIFORNIA REGULATIONS

CARB

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (17) (13).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;

- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

CCR Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.

Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction waste and demolition ordinances and defers to them as the ruling guidance provided they establish a minimum 65% diversion requirement.

The code also provides exemptions for areas not served by construction waste and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020.

The 2019 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption in the SCAB and across the State of California. For example, the 2019 Title 24 standards require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting requirements for nonresidential buildings.

The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings

(such as the Project) will use approximately 30% less energy due to lighting upgrade requirements (18).

Because the Project will be constructed after January 1, 2019, the 2019 CALGreen standards are applicable to the Project and require, among other items (19):

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- Electric vehicle (EV) charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3).
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8)
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section
- 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).

  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (5.303.1.1 and 5.303.1.2).
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

2.8.3 AQMP

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMP to meet the state and federal ambient air quality standards (18). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.10.

2.9 REGIONAL AIR QUALITY IMPROVEMENT

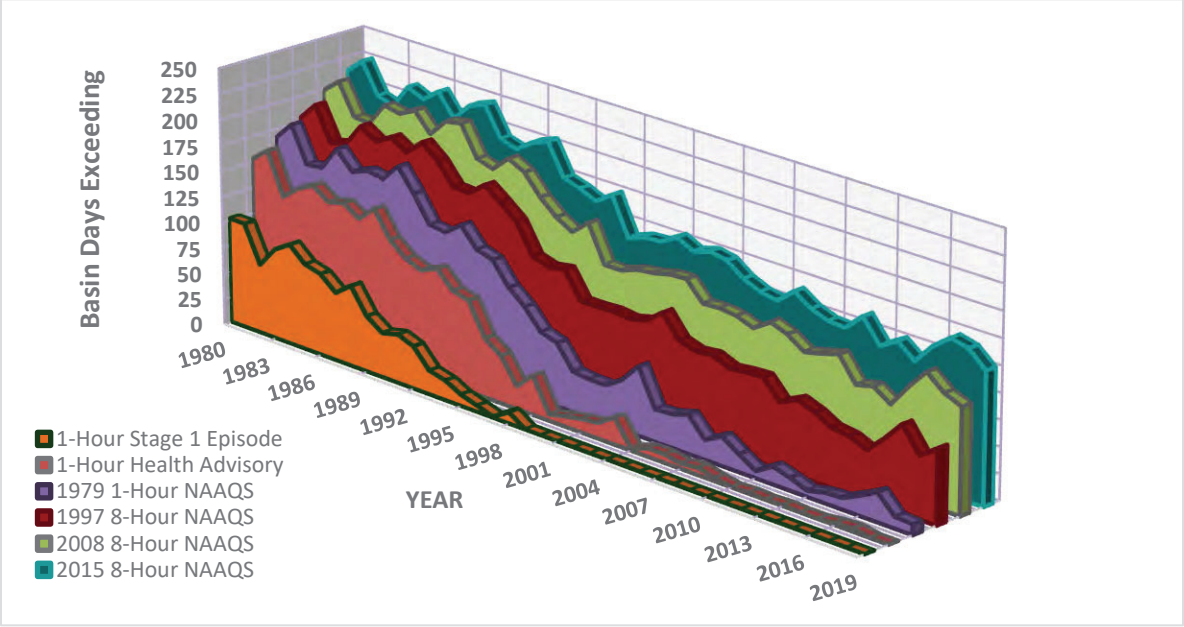
The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists is known as the SCAB. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in SCAB air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the SCAB. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire SCAB. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the SCAB. The 2012 AQMP states, "the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs," (19).

Emissions of O_3, NO_X, VOC, and CO have been decreasing in the SCAB since 1975 and are projected to continue to decrease through 2020 (20). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although VMT in the SCAB continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. O_3 contour maps show that the number of days exceeding the 8-hour NAAQS has generally decreased between 1980 and 2019. For 2019, there was an overall decrease in exceedance days compared with the 1980 period. However, as shown on Table 2-5, O_3 levels have increased in the past three years due to higher temperatures and stagnant weather conditions. Notwithstanding, O_3 levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 70's (21).

TABLE 2-5: SCAB O_3 TREND



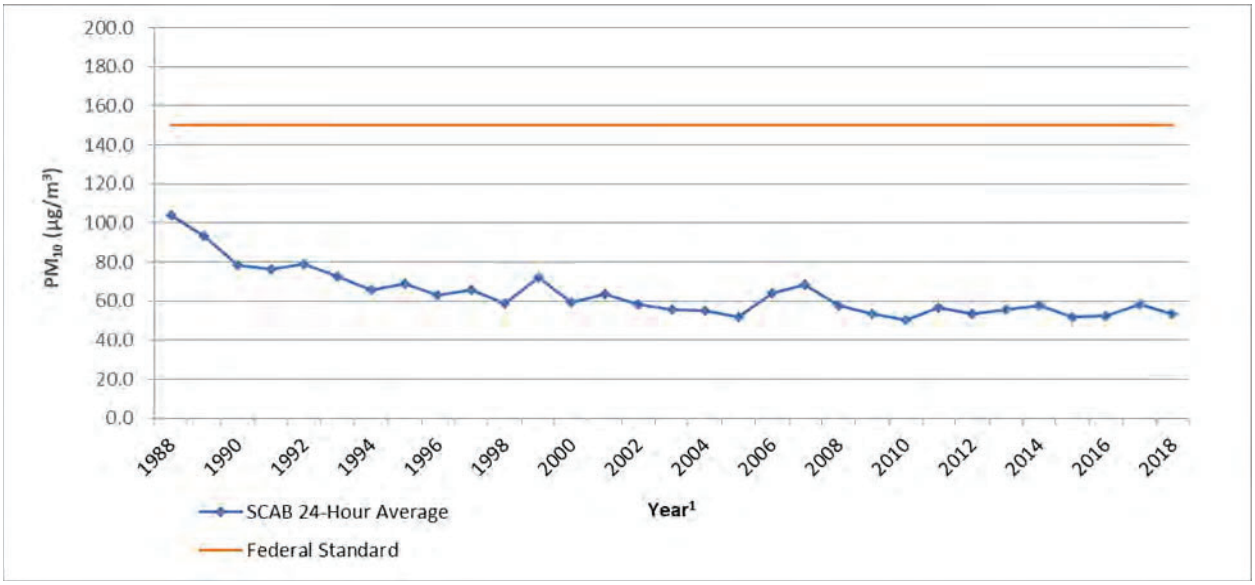
Source: 2020 SCAQMD, Historical O_3 Air Quality Trends (1976-2018)

The overall trends of PM_{10} and $PM_{2.5}$ levels in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM_{10} have remained somewhat constant in the SCAB and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area wide sources

(fugitive dust from roads, dust from construction, and other sources) contribute the greatest amount of direct particulate matter emissions.

As with other pollutants, the most recent PM_{10} statistics show an overall improvement as illustrated in Tables 2-6 and 2-7. During the period for which data are available, the 24-hour national annual average concentration for PM_{10} decreased by approximately 48%, from 103.7 microgram per cubic meter (µg/m³) in 1988 to 53.5 µg/m³ in 2018 (22). Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations will exceed the threshold. The 24-hour state annual average for emissions for PM_{10}, have decreased by approximately 53% since 1988 (22). Although data in the late 1990's show some variability, this is probably due to the advances in meteorological science rather than a change in emissions. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM_{10} standards has also shown an overall drop.

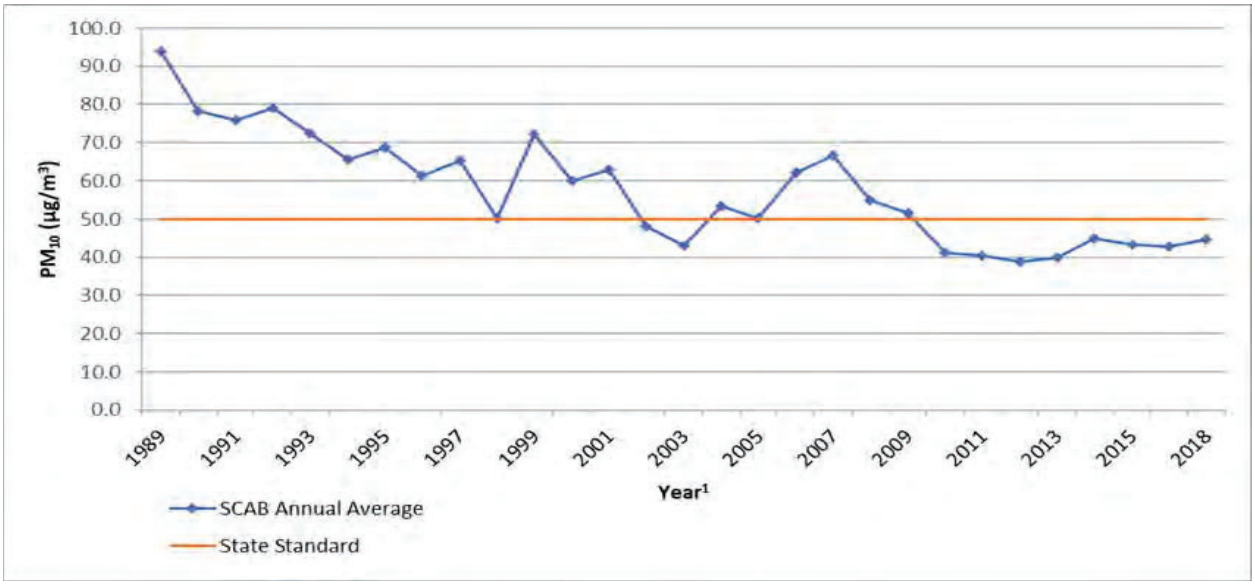
TABLE 2-6: SCAB AVERAGE 24-HOUR CONCENTRATION PM_{10} TREND (BASED ON FEDERAL STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: PM_{10} 24-Hour Averages (1988-2018)

[1] Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

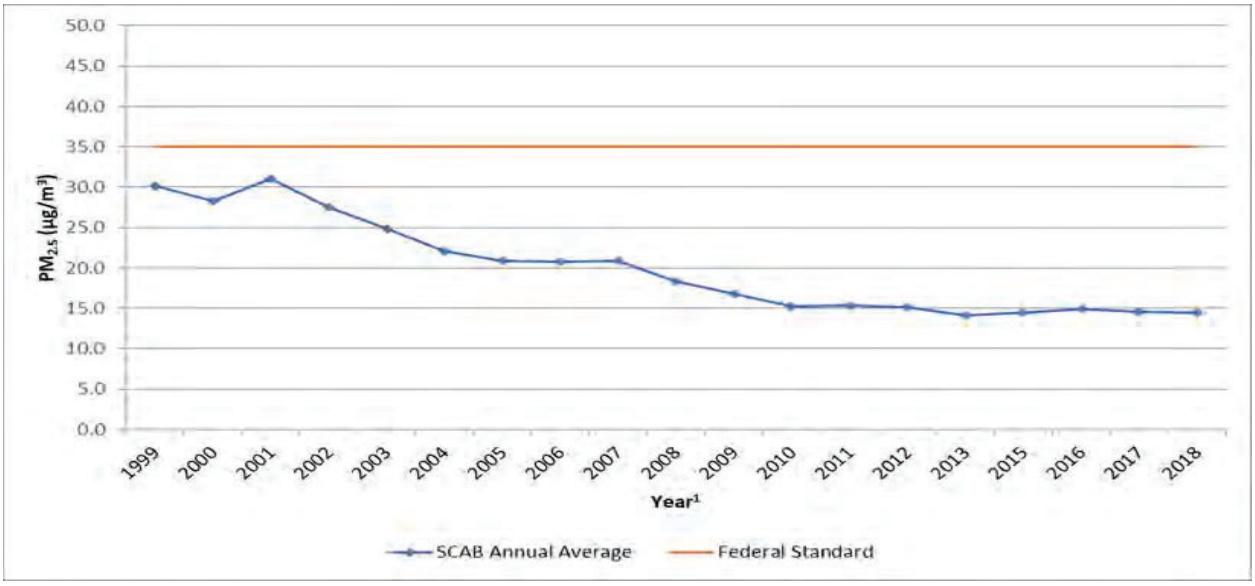
TABLE 2-7: SCAB ANNUAL AVERAGE CONCENTRATION PM_{10} TREND (BASED ON STATE STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: PM_{10} 24-Hour Averages (1988-2018)
[1] Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

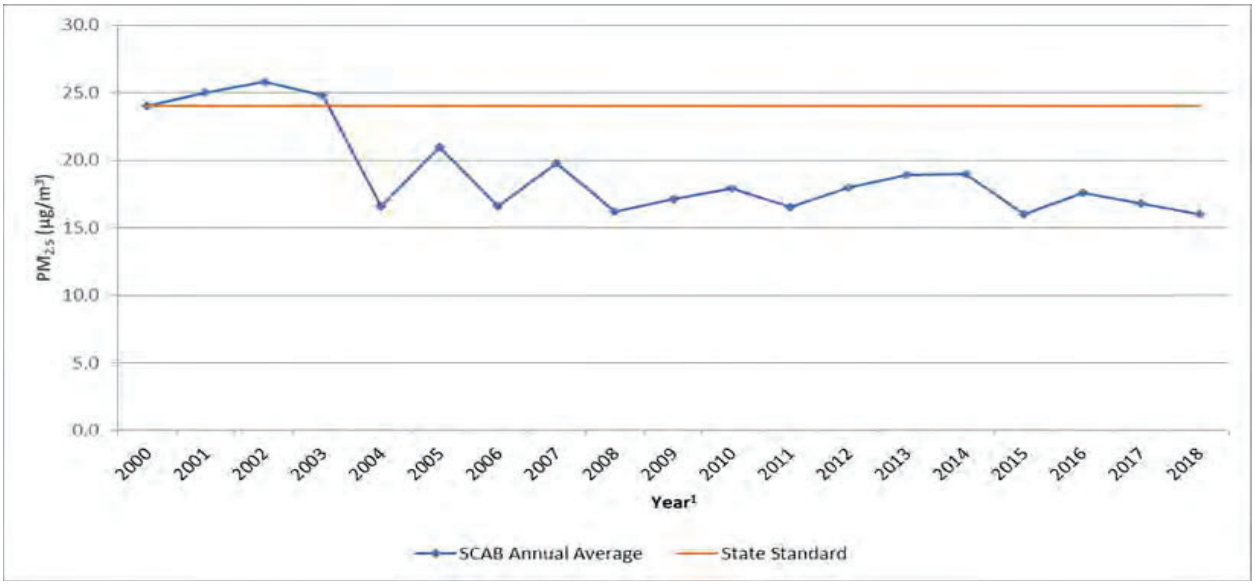
Tables 2-8 and 2-9 shows the most recent 24-hour average $PM_{2.5}$ concentrations in the SCAB from 1999 through 2018. Overall, the national and state annual average concentrations have decreased by almost 52% and 33% respectively (22). It should be noted that the SCAB is currently designated as nonattainment for the state and federal $PM_{2.5}$ standards.

TABLE 2-8: SCAB 24-HOUR AVERAGE CONCENTRATION $PM_{2.5}$ TREND (BASED ON FEDERAL STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: $PM_{2.5}$ 24-Hour Averages (1999-2018)
[1] Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

TABLE 2-9: SCAB ANNUAL AVERAGE CONCENTRATION $PM_{2.5}$ TREND (BASED ON STATE STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: $PM_{2.5}$ 24-Hour Averages (1999-2018)

[1] Some year have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

While the 2012 AQMP PM_{10} attainment demonstration and the 2015 associated supplemental SIP submission indicated that attainment of the 24-hour standard was predicted to occur by the end of 2015, it could not anticipate the effect of the ongoing drought on the measured $PM_{2.5}$.

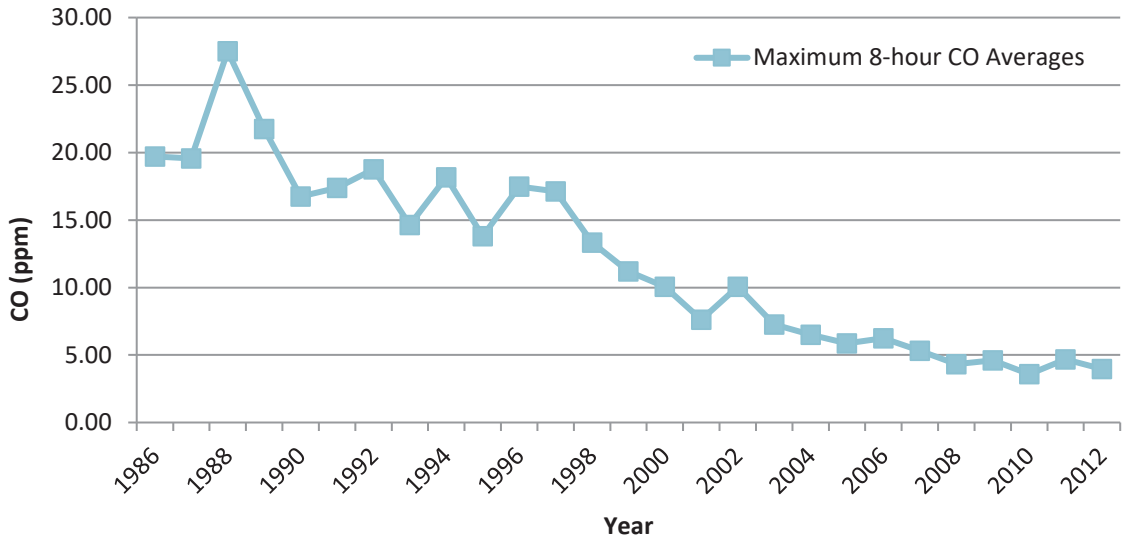
The 2006 to 2010 base period used for the 2012 attainment demonstration had near-normal rainfall. While the trend of $PM_{2.5}$-equivalent emission reductions continued through 2015, the severe drought conditions contributed to the $PM_{2.5}$ increases observed after 2012. As a result of the disrupted progress toward attainment of the federal 24-hour $PM_{2.5}$ standard, SCAQMD submitted a request and the EPA approved, in January 2016, a "bump up" to the nonattainment classification from "moderate" to "serious," with a new attainment deadline as soon as practicable, but not beyond December 31, 2019. As of March 14, 2019, the EPA approved portions of a SIP revision submitted by California to address CAA requirements for the 2006 24-hour $PM_{2.5}$ NAAQS in the Los Angeles-SCAB Serious $PM_{2.5}$ nonattainment area. The EPA also approved 2017 and 2019 motor vehicle emissions budgets for transportation conformity purposes and inter-pollutant trading ratios for use in transportation conformity analyses (23).

In March 2017, the SCAQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (24). Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS) and updated emission inventory methodologies for various source categories (18).

The 2022 AQMP is currently being developed by SCAQMD to address the EPA's strengthened ozone standard. Development of the 2022 AQMP is in its early stages and no formal timeline for completion and adoption is currently known.

The most recent CO concentrations in the SCAB are shown in Table 2-10 (22). CO concentrations in the SCAB have decreased markedly — a total decrease of more about 80% in the peak 8-hour concentration from 1986 to 2012. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the SCAB. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

TABLE 2-10: SCAB 8-HOUR AVERAGE CONCENTRATION CO TREND[1]



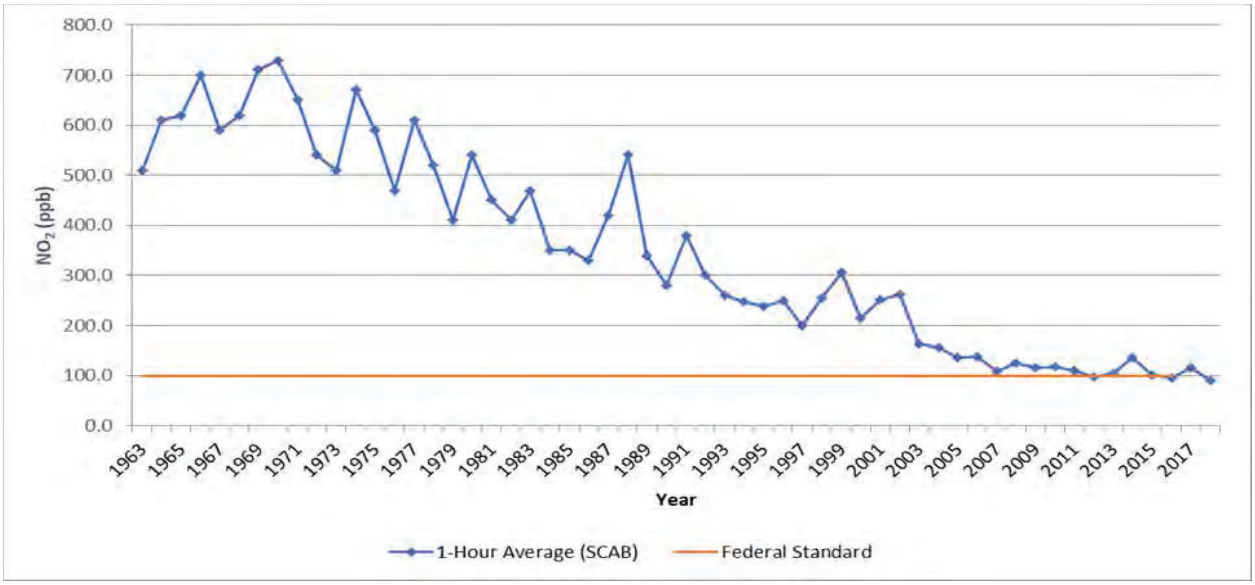
Source: 2020 CARB, iADAM: Top Four Summary: CO 8-Hour Averages (1999-2018)
[1] The most recent year where 8-hour concentration data is available is 2012.

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD's *CEQA Air Quality Handbook (1993)* (*1993 CEQA Handbook*) (25). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades. As stated by the SCAQMD, the District's thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

The most recent NO_2 data for the SCAB is shown in Tables 2-11 and 2-12 (22). Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour national and state averages for 2018 is approximately 82% lower than what it was during 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire state into attainment. A new state annual average standard of 0.030 ppm was adopted by CARB in February 2007 (26). The new standard is just barely exceeded in the SCAQMD. NO_2 is formed from NO_X emissions, which also contribute to O_3.

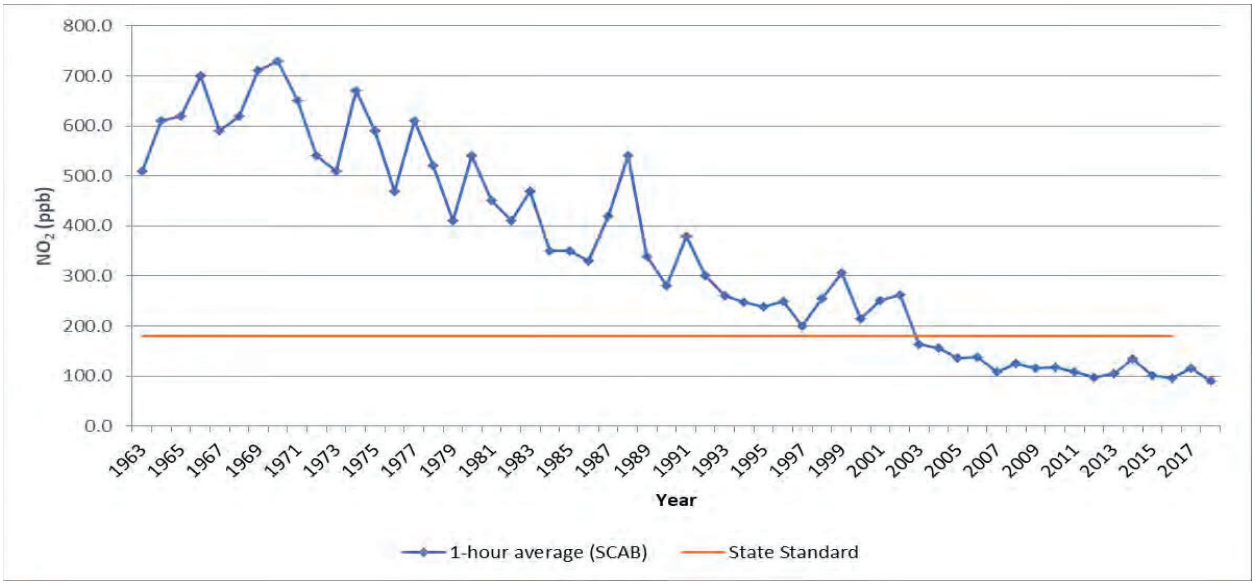
As a result, the majority of the future emission control measures will be implemented as part of the overall O_3 control strategy. Many of these control measures will target mobile sources, which account for more than three-quarters of California's NO_X emissions. These measures are expected to bring the SCAQMD into attainment of the state annual average standard.

TABLE 2-11: SCAB 1-HOUR AVERAGE CONCENTRATION NO_2 TREND (BASED ON FEDERAL STANDARD)



Source: 2020 CARB, iADAM: Top Four Summary: CO 1-Hour Averages (1963-2018)

TABLE 2-12: SCAB 1-HOUR AVERAGE CONCENTRATION NO_2 TREND (BASED ON STATE STANDARD)



Source: 2020 CARB, iADAM: Top Four Summary: CO 1-Hour Averages (1963-2018)

2.9.1 TOXIC AIR CONTAMINANTS (TAC) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of TAC emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article (27) which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (between 1990 and 2012). The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene (C_6H_6), and 1,3-butadiene (C_4H_6); those that are derived from stationary sources: perchloroethylene (C_2Cl_4) and hexavalent chromium (Cr(VI)); and those derived from photochemical reactions of emitted VOCs: formaldehyde (CH_2O) and acetaldehyde (C_2H_4O)[2]. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

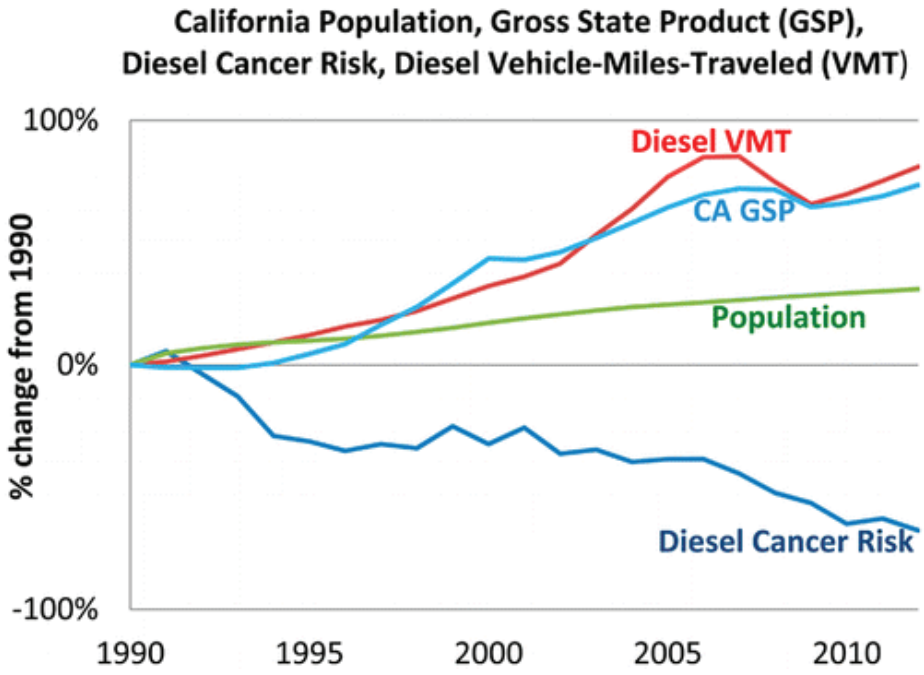
MOBILE SOURCE TACS

CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. In California, light-duty vehicles sold after 1996 are equipped with California's second-generation On-Board Diagnostic (OBD-II) system. The OBD-II system monitors virtually every component that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the OBD-II system illuminates a warning lamp on the vehicle instrument panel to alert the driver. This warning lamp typically contains the phrase "Check Engine" or "Service Engine Soon". The system will also store important information about the detected malfunction so that a repair technician can accurately find and fix the problem. CARB has recently developed similar OBD requirements for heavy-duty vehicles over 14,000 pounds (lbs). CARB's phase II Reformulated Gasoline Regulation (RFG-2), adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the use of reformulated gasoline and motor vehicle regulations (27).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15 ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% since 2000, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, CARB expects a DPM decline of 71% for 2000-2020.

[2] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

EXHIBIT 2-A: DPM AND DIESEL VEHICLE MILES TREND



Source: 2020 CARB

DIESEL REGULATIONS

CARB and the Ports of Los Angeles and Long Beach (POLA and POLB) have adopted several iterations of regulations for diesel trucks that are aimed at reducing DPM. More specifically, CARB Drayage Truck Regulation (28), CARB statewide On-road Truck and Bus Regulation (29), and the Ports of Los Angeles and Long Beach Clean Truck Program (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (30). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the SCAB has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study called the Multiple Air Toxics Exposure Study (MATES). DPM accounts for more than 70% of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is an approximately 17% decrease in comparison to the MATES-II study.

In 2015, the SCAQMD published an in-depth analysis of the toxic air contaminants and the resulting health risks for all of Southern California. The *Multiple Air Toxics Exposure Study in the SCAB, MATES IV"* shows that cancer risk decreased less than 50% between 2005 and 2015 (31).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV calculated cancer risks based on monitoring data collected at ten fixed sites within the SCAB. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the SCAB by modeling the specific grids. The Project is located within four (4) quadrants of the geographic grid of the MATES-IV model which predicted cancer risks ranges from 6.84.09 to in one million 882.97 for the area containing the Project site. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

In January 2018, as part of the overall effort to reduce air toxics exposure in the SCAB, SCAQMD began conducting the MATES V Program. MATES V field measurements were conducted at ten fixed sites (the same sites selected for MATES III and IV) to assess trends in air toxics levels. MATES V also included measurements of ultrafine particles (UFP) and black carbon (BC) concentrations, which can be compared to the UFP levels measured in MATES IV (32). The final report for the MATES V study was expected to be available in Fall 2019, however it is not yet available and no definitive date for its release has been provided by SCAQMD.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

This study quantifies air quality emissions generated by construction and operation of the Project and addresses whether the Project conflicts with implementation of the SCAQMD's AQMP and Lead Agency planning regulations. The analysis of Project-generated air emissions determines whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment under an applicable NAAQS and CAAQS. Additionally, the Project has been evaluated to determine whether the Project would expose sensitive receptors to substantial pollutant concentrations and the impacts of odors. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (1):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD has also developed regional significance thresholds for other regulated pollutants, as summarized at Table 3-1 (33). The SCAQMD's *CEQA Air Quality Significance Thresholds* (April 2019) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

3.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY

3.3.1 CALEEMOD

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from MMs (34). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality emissions.

3.3.2 EMISSION FACTORS MODEL

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in SIP and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources (35). This AQIA utilizes summer, winter, and annual EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season.

Because the EMFAC2017 emission rates are associated with vehicle fuel types while CalEEMod vehicle emission factors are aggregated to include all fuel types for each individual vehicle class, the EMFAC2017 emission rates for different fuel types of a vehicle class are averaged by activity or by population and activity to derive CalEEMod emission factors. The equations applied to obtain CalEEMod vehicle emission factors for each emission type are detailed in CalEEMod User's Guide *Appendix A: Calculation Details for CalEEMod* (36). EMFAC2017 emission rates utilized in this analysis can be found in Appendix 3.1 of this report.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

DEMOLITION

Based on information provided by the Project Applicant, the Project will result in 5,985,752 tons of debris.

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. At the time of this analysis, no information on grading quantities were readily available. As such, this study assumes a balanced site.

CONSTRUCTION WORKER VEHICLE TRIPS

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from CalEEMod defaults.

3.4.1 CONSTRUCTION DURATION

For purposes of analysis, construction is expected to commence in June 2021 and will last through December 2040. The construction schedule utilized in the analysis, shown in Table 3-2, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent[3]. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (1).

3.4.2 CONSTRUCTION EQUIPMENT

The construction equipment fleet were based on CalEEMod defaults and were confirmed with the Project Applicant. A summary of construction equipment assumptions by phase is provided at Table 3-3.

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-3 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

[3] As shown in the CalEEMod User's Guide Version 2016.3.2, Section 4.3 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Demolition	06/01/2021	05/30/2022	260
Site Preparation	05/31/2022	12/12/2022	140
Grading	12/13/2022	07/22/2024	420
Building Construction	07/23/2024	12/31/2040	4,290
Paving	10/05/2038	12/31/2040	585
Architectural Coating	01/13/2032	12/31/2040	2,340

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment[1]	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	2	8
	Excavators	5	8
	Rubber Tired Dozers	4	8
Site Preparation	Crawler Tractors	7	8
	Rubber Tired Dozers	5	8
Grading	Crawler Tractors	4	8
	Excavators	4	8
	Graders	2	8
	Rubber Tired Dozers	2	8
	Scrapers	4	8
Building Construction	Cranes	2	8
	Crawler Tractors	5	8
	Forklifts	5	8
	Generator Sets	2	8
	Welders	2	8
Paving	Pavers	4	8
	Paving Equipment	4	8
	Rollers	4	8
Architectural Coating	Air Compressors	2	8

[1] In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes.

3.4.3 CONSTRUCTION EMISSIONS SUMMARY

IMPACTS WITHOUT MITIGATION

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from the Project construction will exceed thresholds established by the SCAQMD for emissions of NO_X and PM_{10} during construction activity.

TABLE 3-4: OVERALL CONSTRUCTION EMISSIONS SUMMARY – WITHOUT MITIGATION

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2021	21.06	605.56	137.90	1.91	259.11	49.89
2022	46.21	549.11	132.55	1.89	281.26	54.73
2023	8.76	111.69	63.96	0.25	19.11	7.43
2024	63.85	360.88	487.86	2.34	166.17	46.59
2025	60.44	351.12	454.86	2.29	165.90	46.34
2026	57.81	346.97	427.23	2.24	165.86	46.31
2027	55.27	343.17	402.79	2.20	165.82	46.26
2028	52.65	339.96	381.54	2.16	165.76	46.21
2029	49.80	336.94	361.07	2.13	165.71	46.16
2030	46.91	315.53	341.43	2.11	164.65	45.21
2031	43.94	314.25	325.78	2.09	164.61	45.17
2032	68.45	317.01	361.86	2.27	192.17	52.56
2033	65.67	314.80	346.05	2.25	192.12	52.52
2034	63.36	312.94	331.18	2.23	192.08	52.48
2035	60.98	306.68	318.56	2.21	191.82	52.23
2036	60.98	306.68	318.56	2.21	191.82	52.23
2037	60.98	306.68	318.56	2.21	191.82	52.23
2038	65.42	316.45	350.68	2.27	192.53	52.69
2039	65.42	316.45	350.68	2.27	192.53	52.69
2040	57.95	307.64	312.73	2.23	192.18	52.35
Maximum Daily Emissions	**68.45**	**605.56**	**487.86**	**2.34**	**281.26**	**54.73**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.2.

IMPACTS WITH MITIGATION

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-5. MM AQ-1 is recommended to reduce the severity of the impacts. Detailed construction model outputs are presented in Appendix 3.3. After implementation of MM AQ-1, Project construction-source emissions of NO_X and PM_{10} would exceed applicable SCAQMD thresholds. As such, even with application of MM AQ-1, Project construction-source emissions impacts would be significant and unavoidable.

TABLE 3-5: OVERALL CONSTRUCTION EMISSIONS SUMMARY – WITH MITIGATION

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2021	21.06	605.56	137.90	1.91	259.11	49.89
2022	46.21	549.11	132.55	1.89	281.26	54.73
2023	8.76	111.69	63.96	0.25	19.11	7.43
2024	63.85	360.88	487.86	2.34	166.17	46.59
2025	60.44	351.12	454.86	2.29	165.90	46.34
2026	57.81	346.97	427.23	2.24	165.86	46.31
2027	55.27	343.17	402.79	2.20	165.82	46.26
2028	52.65	339.96	381.54	2.16	165.76	46.21
2029	49.80	336.94	361.07	2.13	165.71	46.16
2030	46.91	315.53	341.43	2.11	164.65	45.21
2031	43.94	314.25	325.78	2.09	164.61	45.17
2032	68.45	317.01	361.86	2.27	192.17	52.56
2033	65.67	314.80	346.05	2.25	192.12	52.52
2034	63.36	312.94	331.18	2.23	192.08	52.48
2035	60.98	306.68	318.56	2.21	191.82	52.23
2036	60.98	306.68	318.56	2.21	191.82	52.23
2037	60.98	306.68	318.56	2.21	191.82	52.23
2038	65.42	316.45	350.68	2.27	192.53	52.69
2039	65.42	316.45	350.68	2.27	192.53	52.69
2040	57.95	307.64	312.73	2.23	192.18	52.35
Maximum Daily Emissions	**68.45**	**605.56**	**487.86**	**2.34**	**281.26**	**54.73**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**

Source: CalEEMod construction-source (mitigated) emissions are presented in Appendix 3.3.

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the Project will result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Operational emissions are expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Cargo Handling Equipment Emissions

3.5.1 AREA SOURCE EMISSIONS

ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project will require maintenance and will therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

CONSUMER PRODUCTS

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

3.5.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. Based on information provided by the Project Applicant, the Project would not utilize natural gas and therefore no air quality emissions from energy sources would occur.

3.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland* (TIS) were utilized in this analysis (37).

APPROACH FOR ANALYSIS OF THE PROJECT

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose for the proposed industrial land uses.

For the proposed industrial uses, it is important to note that although the TIS does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[4] & LDT2[5]), Medium-Duty-Vehicles (MDV), Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the following fleet mix was utilized in this analysis:

TABLE 3-6: PASSENGER CAR FLEET MIX

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse/ Warehousing	LDA	63.82
	LDT1	3.67
	LDT2	20.69
	MDV	11.23
	MCY	5.90

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicles types.

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 40 miles[6] and an assumption of 100% primary trips for the proposed industrial land uses.

In order to be consistent with the TIS, trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided in the TIS. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

[6] The average trip length for heavy trucks were based on the SCAQMD documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 AQMP. SCAQMD's "Preliminary Warehouse Emission Calculations" cites 39.9-mile trip length for heavy-heavy trucks (41). As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purpose of this analysis (39)

Heavy-Duty Trucks (LHDT1[7] & LHDT2 [8])/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. In order to account for emissions generated by trucks, the following fleet mix was utilized in this analysis:

TABLE 3-7: TRUCK FLEET MIX

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse	HHDT	100
High-Cube Fulfillment Center Warehouse	LHDT1	11.68
	LHDT2	5.26
	MHDT	22.69
	HHDT	60.37

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimates for travel on paved roads were calculated using CalEEMod.

3.5.4 ON-SITE CARGO HANDLING EQUIPMENT EMISSIONS

It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a hp range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (38), high-cube warehouse projects typically have 3.6 yard trucks per million sf of building space. For this particular Project, based on the maximum square footage of warehouse building space, on-site modeled operational equipment includes up to twenty-eight (28) 200 hp, compressed natural gas or gasoline-powered yard tractors operating at 4 hours a day for 365 days of the year.

3.5.5 OPERATIONAL EMISSIONS SUMMARY

EXITING CONDITIONS

As previously stated, the existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area.

[7] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

[8] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

For purposes of analysis, the emissions associated with area and energy sources were calculated based on CalEEMod default parameters. Lastly, mobile source emissions were based on trip generation information provided in the TIS. The estimated operation-source emissions from the existing development are summarized on Table 3-8. CalEEMod outputs for existing conditions are presented in Appendix 3.4.

TABLE 3-8: SUMMARY OF EXISTING OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Area Source	411.95	20.59	560.73	1.24	72.93	72.93
Energy Source	1.27	11.19	6.87	0.07	0.88	0.88
Mobile Source	21.80	164.26	268.93	1.20	116.71	32.08
Total Maximum Daily Emissions	**435.02**	**196.04**	**836.54**	**2.50**	**190.52**	**105.89**
Winter						
Area Source	411.95	20.59	560.73	1.24	72.93	72.93
Energy Source	1.27	11.19	6.87	0.07	0.88	0.88
Mobile Source	20.52	171.10	232.56	1.15	116.60	32.04
Total Maximum Daily Emissions	**433.74**	**202.89**	**800.17**	**2.46**	**190.41**	**105.85**

Source: CalEEMod operational-source emissions are presented in Appendix 3.4.

PROPOSED PROJECT

CalEEMod utilizes summer and winter EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season. The estimated operational-source emissions are summarized on Tables 3-9. It should be noted that the existing development emissions were subtracted from the Project operational emissions to determine the net new emissions from the proposed Project. Detailed operation model outputs for the Project are presented in Appendix 3.5. As shown on Table 3-9, the Project's daily regional emissions from on-going operations would not exceed the thresholds of significance for emissions of NO_X and PM_{10}.

Additionally, it should be noted that the majority of the Project's NO_X and PM_{10} emissions are derived from vehicle usage. Since neither the Project Applicant nor the Lead Agency have regulatory authority to control tailpipe emissions, no feasible mitigation measures exist that would reduce these emissions to levels that are less-than-significant.

Although the Project would implement the mitigation measures listed in section ES.4, it should be noted that there is no way to quantify these reductions in CalEEMod. Moreover, no additional feasible mitigation measures exist that would further reduce these emissions to levels that are less-than-significant. As noted, the majority of emissions would be generated from the mobile activities from vehicles that cannot be mitigated. Neither the Project Applicant nor the Lead

Agency can substantively or materially affect reductions in Project mobile-source emissions beyond the regulatory requirements and mitigation measures identified herein.

Additionally, Transportation Demand Management (TDM) measures implemented as mitigation for transportation VMT impacts would act to generally reduce vehicle-source emissions. The efficacy of TDMs and any resulting emissions reductions would be dependent on as yet-unknown building tenants and final site plan designs. Accordingly, emissions reductions resulting from implementation of TDMs are not quantified within this analysis. Even with application of mitigation measure and implementation of TDMs, Project operational-source emissions impacts would be significant and unavoidable.

TABLE 3-9: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Summer						
Area Source	132.43	0.03	3.79	2.90E-04	0.01	0.01
Energy Source	1.50	13.66	11.48	0.08	1.04	1.04
Mobile Source	53.54	665.67	725.76	4.38	368.30	103.07
On-Site Equipment Source	3.18	5.43	20.39	0.11	0.20	0.20
Total Maximum Daily Emissions	**190.65**	**684.79**	**761.41**	**4.58**	**369.56**	**104.33**
Existing Emissions	*435.02*	*196.04*	*836.54*	*2.50*	*190.52*	*105.89*
Net Emissions (Project – Existing)	**-244.37**	**488.75**	**-75.13**	**2.07**	**179.04**	**-1.56**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**
Winter						
Area Source	132.43	0.03	3.79	2.90E-04	0.01	0.01
Energy Source	1.50	13.66	11.48	0.08	1.04	1.04
Mobile Source	50.36	692.21	604.40	4.27	367.85	102.90
On-Site Equipment Source	3.18	5.43	20.39	0.11	0.20	0.20
Total Maximum Daily Emissions	**187.48**	**711.33**	**640.05**	**4.46**	**369.10**	**104.15**
Existing Emissions	*433.74*	*202.89*	*800.17*	*2.46*	*190.41*	*105.85*
Net Emissions (Project – Existing)	**-246.27**	**508.45**	**-160.12**	**2.00**	**178.70**	**-1.69**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**

Source: CalEEMod operational-source emissions are presented in Appendix 3.5.

3.6 LOCALIZED SIGNIFICANCE

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLD (LST) DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (*LST Methodology*) (39). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4[9]. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the *LST Methodology* (40).

APPLICABILITY OF LSTS FOR THE PROJECT

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to exceeding the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

SCAQMD developed LSTs to determine if emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at a project site (offsite mobile-source emissions are not included in the LST analysis) would expose

's "Preliminary Warehouse Emission Calculations" cites 39.9-mile trip length for heavy-heavy trucks **Invalid source specified.**. As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purpose of this analysis.

SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

sensitive receptors to substantial concentrations of criteria air pollutants. Table 3-10 shows the localized significance thresholds for projects in SCAQMD's jurisdiction.

To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the hourly levels shown in Table 3-10 for projects under five acres. LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to exceeding the most stringent federal or state AAQS. LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. However, consistent with SCAQMD guidance an LST analysis can only be conducted at a project-level, and quantification of LSTs is not applicable for this program-level environmental analysis.

TABLE 3-10: SCAQMD LOCALIZED SIGNIFICANCE THRESHOLD[A]

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual Average NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (SCAQMD)[1]	10.4 µg/m³
24-Hour $PM_{2.5}$ Standard – Construction (SCAQMD)[1]	10.4 µg/m³
24-Hour PM_{10} Standard – Operation (SCAQMD)[1]	2.5 µg/m³
24-Hour $PM_{2.5}$ Standard – Operation (SCAQMD)[1]	2.5 µg/m³
Annual Average PM_{10} Standard (SCAQMD)[1]	1.0 µg/m³

[A:] Threshold is based on SCAQMD Rule 403. Since SCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is not relevant.

3.7 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific CO "hot spots" is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the SCAQMD's *CEQA Air Quality Handbook (1993)* (*1993 CEQA Handbook*), the SCAB was designated nonattainment under the CAAQS and NAAQS for CO (41).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak

morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-11.

TABLE 3-11: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's *2003 Air Quality Management Plan (2003 AQMP)* and the *1992 Federal Attainment Plan for Carbon Monoxide* (*1992 CO Plan*), peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hour CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the *2003 AQMP* was prepared (42). In contrast, the ambient 8-hour CO concentration within the Project study area is estimated at 1.1 ppm—1.3 ppm. Therefore, even if the traffic volumes for the Project were double or even triple of the traffic volumes generated at the Long Beach Boulevard and Imperial Highway intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (43). Traffic volumes generating the CO concentrations for the "hot spot" analysis is shown on Table 3-12. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (44). The *2003 AQMP* estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm)[10].

[10] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm)

TABLE 3-12: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/ Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/ Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

As summarized on Table 3-13 below, the intersection of Victoria Avenue and Highland Avenue would generate the highest AM/PM traffic volumes of 2,406 vph and 3,447 vph respectively. As such, Project-related traffic volumes are less than the traffic volumes identified in the *2003 AQMP*. The Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-13: PROJECT PEAK HOUR TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
SR-210 Eastbound Off-Ramp/ Highland Avenue	0/0	1,041/1,173	277/694	294/546	1,612/2,413
Driveway/Highland Avenue & SR-210 Westbound Off-Ramp	372/391	7/12	879/1353	902/1462	2,160/3,218
Victoria Avenue/Highland Avenue	498/472	549/906	902/1328	457/741	2,406/3,447
Victoria Avenue/Pacific Street	488/571	432/392	565/617	461/338	1,946/1,918

3.9 AQMP

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation

commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In March 2017, the SCAQMD released the *Final 2016 AQMP* (*2016 AQMP*). The *2016 AQMP* continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (45). Similar to the 2012 AQMP, the *2016 AQMP* incorporates scientific and technological information and planning assumptions, including the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (*2016-2040 RTP/SCS*), a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements (18). The Project's consistency with the AQMP will be determined using the *2016 AQMP* as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the *1993 CEQA Handbook* (46). These indicators are discussed below:

3.9.1 Consistency Criterion No. 1

The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded.

Construction Impacts – Consistency Criterion 1

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized or regional significance thresholds were exceeded. The Project has the potential to exceed the applicable regional significance thresholds for construction activity (after mitigation). Therefore, the Project has the potential to conflict with the AQMP according to this criterion.

Operational Impacts – Consistency Criterion 1

The Project has the potential to exceed the applicable regional significance thresholds for operational activity. Therefore, the Project has the potential to conflict with the AQMP according to this criterion.

On the basis of the preceding discussion, the Project is determined to have the potential to conflict with the first criterion.

3.9.2 CONSISTENCY CRITERION NO. 2

The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The *2016 AQMP* demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in Cities of San Bernardino and Highland General Plan is considered to be consistent with the AQMP***.***

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that emissions thresholds will be exceeded, a significant impact would result.

Operational Impacts – Consistency Criterion 2

The primary physical change in the environment when adopting a new land use plan is the change in the mix of uses between the existing land uses and land use designations and the proposed land use designations. The total acreage within the AGSP planning area is 679.2 acres, 209 acres of vacant land constitutes about 31.2% of the total acreage in the planning area.

After extensive discussions among the AGSP participants, a decision was made to establish "Industrial Mixed Use" as the only future human-occupied land use within the planning area. A total of 469.10 acres of the planning area are designated as Industrial Mixed Use. The only other designations in the AGSP planning area are right of way (141.04 acres) and floodway (68.79 acres). Additional planning assumptions include a total of about 9,142,739 sf of non-residential development could be realized under the AGSP, and up to 75,000 sf of hotel (est. 150 rooms) could be constructed.

Notwithstanding, the Project would exceed the applicable SCAQMD regional threshold for construction and operational-source activity for emissions of NO_X and PM_{10} and is therefore considered significant and unavoidable.

On the basis of the preceding discussion, the Project is determined to have the potential to conflict with the second criterion.

AQMP CONSISTENCY CONCLUSION

The Project has the potential to result in or cause NAAQS or CAAQS violations. Construction-source and operational-source emissions would exceed the applicable SCAQMD regional thresholds for NO_X and PM_{10}. The Project's proposed land use designation for the subject site would potentially affect the development intensities. As such, the Project is considered to have

the potential to conflict with the AQMP and a potential significant impact would occur with respect to this threshold.

3.10 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors.

The proposed Project would not result in a CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8. Thus, a less than significant impact to sensitive receptors during operational activity is expected.

Specific health risks from DPM will be quantified in future health risk analyses (as required by MM AQ-15) to be conducted for individual implementing projects that involve a discretionary action. For projects that are calculated to exceed the significance thresholds established by the SCAQMD (after mitigation), the preparation of an Environmental Impact Report (EIR) would be required (pursuant to CEQA) and an analysis of alternatives and other emissions reduction measures would take place.

Health risks from DPM for implementing projects within the Specific Plan cannot be accurately determined at this stage of the policy planning process. Therefore, such impacts are too speculative to evaluate (see CEQA Guidelines Section 15145). To the extent that specific development projects within the Specific Plan are known, those projects have already been or would be subjected to their own environmental analysis. Additionally, due to the variables that must be considered when examining site-specific health risks such as where specific buildings are located, how they are designed, where loading docks are positioned, and the appropriate truck ingress and egress points it is too speculative to evaluate potential health risks from the Specific Plan area at this time. As such, MM AQ-15 is required for all future implementing projects and will require site-specific health risk impact evaluation. All feasible mitigation measures shall be considered as part of the future evaluation of individual implementing projects to minimize any significant impacts, based on project-specific health risk modeling. The mitigation measure(s) to be applied shall be roughly proportional and have a nexus with the project-specific impact identified, consistent with Section 15126.4 of the State CEQA Guidelines.

3.10.1 FRIANT RANCH CASE

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, California Supreme Court held that an EIR's air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. As noted in the *Brief* of Amicus Curiae by the SCAQMD in the Friant Ranch case (April 6, 2015, Appendix 3.6), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State,

and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes (47).

The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence) (47). The *Brief* states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s))[11] (47). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk--it does not necessarily mean anyone will contract cancer as a result of the Project (47). The *Brief* also cites the author of the CARB methodology, which reported that a $PM_{2.5}$ methodology is not suited for small projects and may yield unreliable results (47). Similarly, SCAQMD staff does not currently know of a way to accurately quantify O_3-related health impacts caused by NO_X or VOC emissions from relatively small projects, due to photochemistry and regional model limitations (47). The *Brief* concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful (47).

On the other hand, for extremely large regional projects (unlike the proposed Project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 lbs./day of NO_X and 89,180 lbs./day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O_3 (47).

The proposed Project does not generate anywhere near 6,620 lbs/day of NO_X or 89,190 lbs/day of VOC emissions. The proposed Project would generate up to 605.56 lbs/day of NO_X during construction and 508.45 lbs/day of NO_X during operations (9.1% and 7.7% of 6,620 lbs/day, respectively). Additionally, the proposed Project would also generate a maximum of 68.45 lbs/day of VOC emissions during construction and 190.65 lbs/day of VOC emissions during operations (0.07% and 0.21% of 89,190 lbs/day, respectively). Therefore, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

3.11 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants

[11] It should also be noted that the actual occurrence of specific health conditions is based on numerous other factors that are infeasible to quantify, such as an individual's genetic predisposition, diet, exercise regiment, stress, and other behavioral characteristics.

- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required (48).

3.12 CUMULATIVE IMPACTS

As previously shown in Table 2-3, the CAAQS designate the Project site as nonattainment for O_3 PM_{10}, and $PM_{2.5}$ while the NAAQS designates the Project site as nonattainment for O_3 and $PM_{2.5}$.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (49). In this report the SCAQMD clearly states (Page D-3):

> *"…the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*

> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

CONSTRUCTION IMPACTS

Project construction-source air pollutant emissions would exceed the SCAQMD regional thresholds for emissions of NO_X and PM_{10}. Per SCAQMD significance guidance, NO_X impacts are considered cumulatively significant and would persist over the life of the Project. NO_X emissions are ozone precursors and would therefore have the potential to contribute considerably to existing ozone non-attainment conditions within the SCAB. As such, Project construction-source emissions would be considered significant on a project-specific and cumulative basis.

OPERATIONAL IMPACTS

Project operational-source NO_X and PM_{10} emissions will exceed applicable SCAQMD regional thresholds. Per SCAQMD significance guidance, these impacts at the Project level are also considered cumulatively significant and would persist over the life of the Project. NO_X emissions are ozone precursors and would therefore contribute considerably to existing ozone non-attainment conditions within the SCAB. This is a cumulatively significant impact persisting over the life of the Project.

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5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Airport Gateway Specific Plan. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – CARB • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

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APPENDIX C

MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

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APPENDIX C

MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

This attachment fulfills the requirement of Health and Safety Code section 40718 for CARB to publish maps that identify areas where one or more violations of any State ambient air quality standard (State standard) or national ambient air quality standard (national standard) have been measured. The national standards are those promulgated under section 109 of the federal Clean Air Act (42 U.S.C. 7409).

This attachment is divided into three parts. The first part comprises a table showing the levels, averaging times, and measurement methods for each of the State and national standards. This is followed by a section containing maps and tables showing the area designations for each pollutant for which there is a State standard in the California Code of Regulations, title 17, section 70200. The last section contains maps and tables showing the most current area designations for the national standards.

Ambient Air Quality Standards

(Updated 5/4/16)

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Area Designations for the State Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a State standard set forth in the California Code of Regulations, title 17, section 60200. Each area is identified as attainment, nonattainment, nonattainment-transitional, or unclassified for each pollutant, as shown below:

Attainment	A
Nonattainment	N
Nonattainment-Transitional	NA-T
Unclassified	U

In general, CARB designates areas by air basin for pollutants with a regional impact and by county for pollutants with a more local impact. However, when there are areas within an air basin or county with distinctly different air quality deriving from sources and conditions not affecting the entire air basin or county, CARB may designate a smaller area. Generally, when boundaries of the designated area differ from the air basin or county boundaries, the description of the specific area is referenced at the bottom of the summary table.

FIGURE 1



Source Date:
October 2018
Air Quality Planning and Science Division

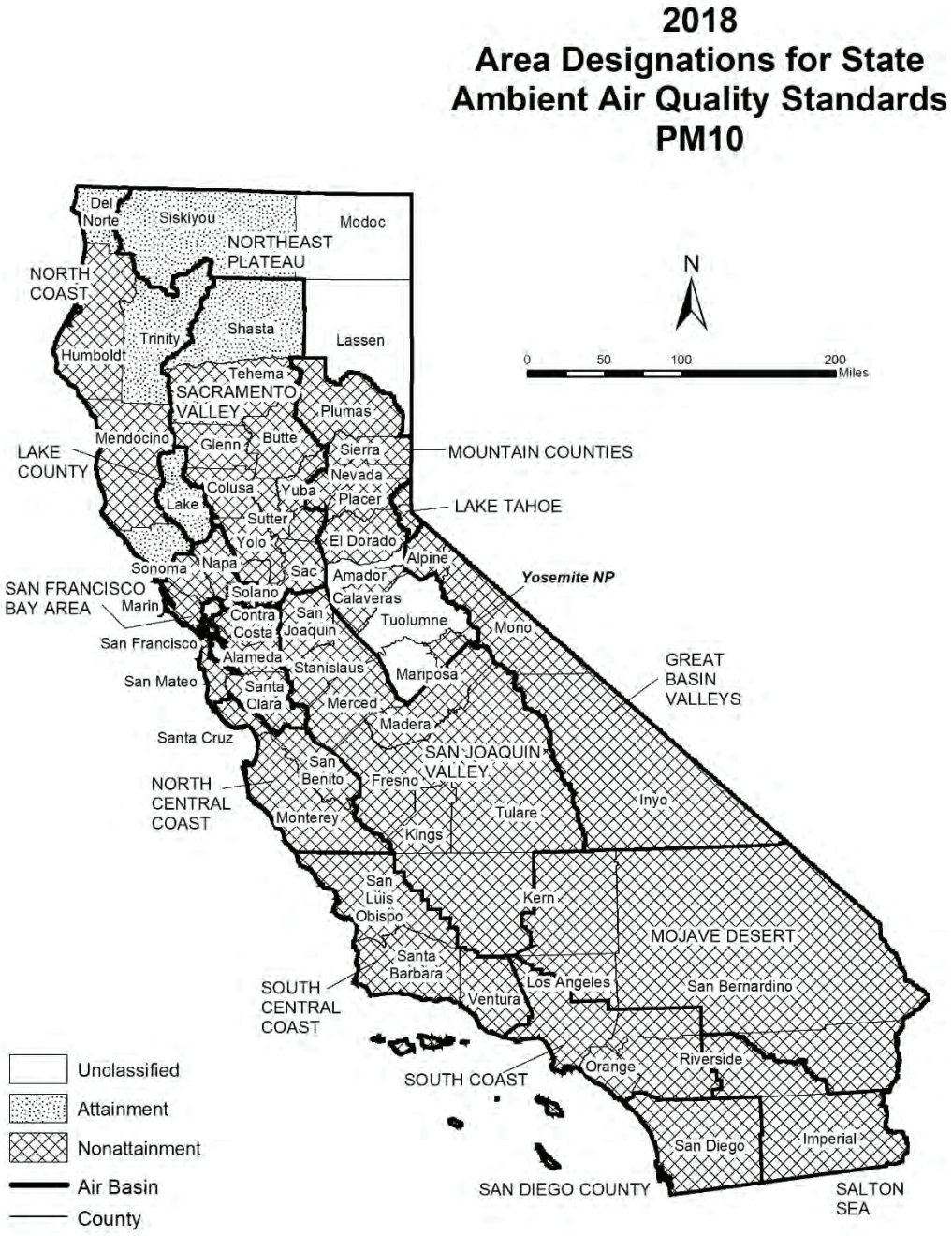
TABLE 1

California Ambient Air Quality Standards
Area Designations for Ozone (1)

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					NORTHEAST PLATEAU AIR BASIN				X
Alpine County			X		SACRAMENTO VALLEY AIR BASIN				
Inyo County	X				Colusa and Glenn Counties				X
Mono County	X				Sutter/Yuba Counties				
LAKE COUNTY AIR BASIN				X	Sutter Buttes	X			
LAKE TAHOE AIR BASIN				X	Remainder of Sutter County				X
MOJAVE DESERT AIR BASIN	X				Yuba County				X
MOUNTAIN COUNTIES AIR BASIN					Yolo/Solano Counties		X		
Amador County	X				Remainder of Air Basin	X			
Calaveras County	X				SALTON SEA AIR BASIN	X			
El Dorado County (portion)	X				SAN DIEGO AIR BASIN	X			
Mariposa County	X				SAN FRANCISCO BAY AREA AIR BASIN	X			
Nevada County	X				SAN JOAQUIN VALLEY AIR BASIN	X			
Placer County (portion)	X				SOUTH CENTRAL COAST AIR BASIN				
Plumas County			X		San Luis Obispo County	X			
Sierra County			X		Santa Barbara County		X		
Tuolumne County	X				Ventura County	X			
NORTH CENTRAL COAST AIR BASIN		X			SOUTH COAST AIR BASIN	X			
NORTH COAST AIR BASIN				X					

(1) AB 3048 (Olberg) and AB 2525 (Miller) signed into law in 1996, made changes to Health and Safety Code, section 40925.5. One of the changes allows nonattainment districts to become nonattainment-transitional for ozone by operation of law.

FIGURE 2



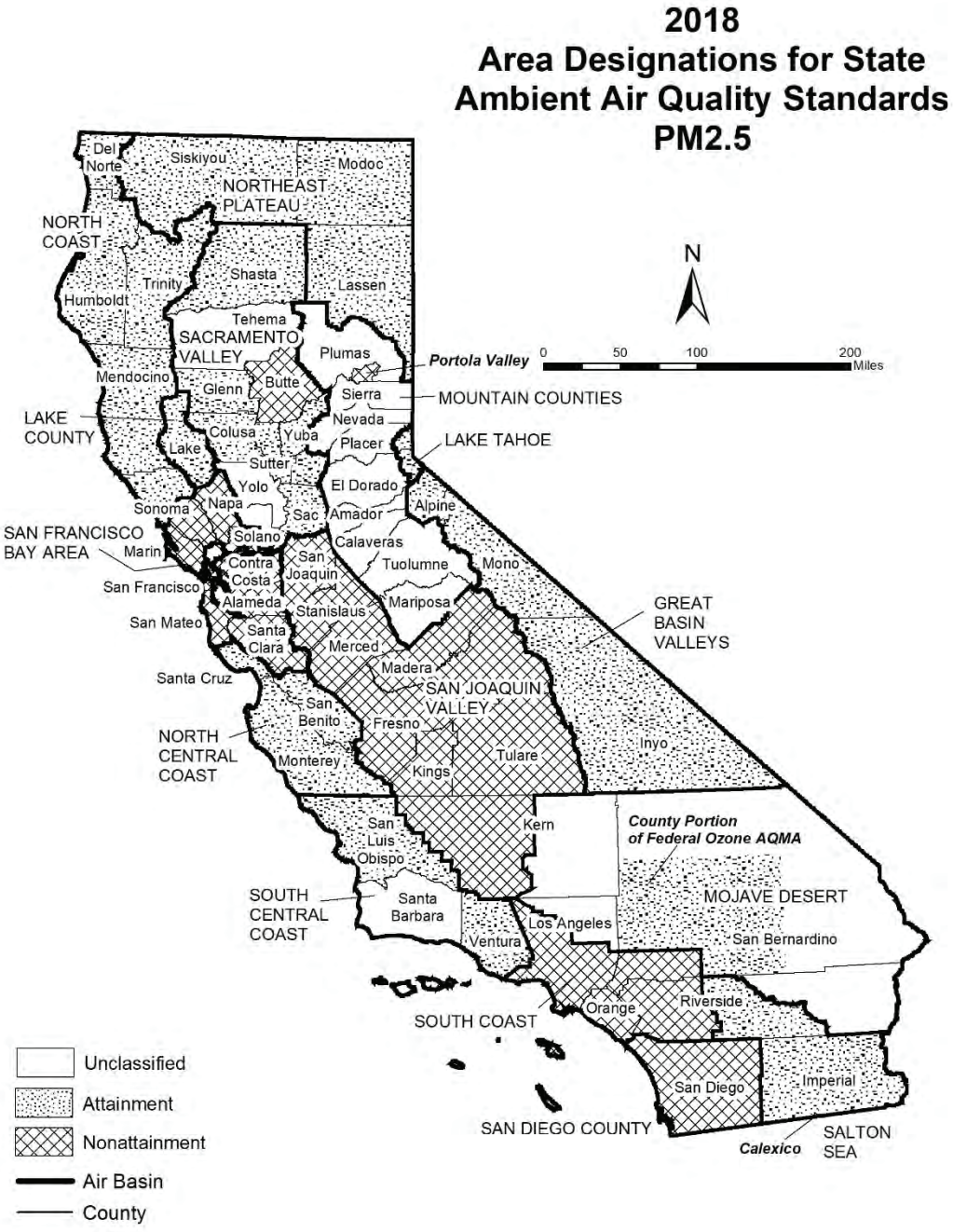
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 2

California Ambient Air Quality Standards
Area Designation for Suspended Particulate Matter (PM10)

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN	X			NORTH CENTRAL COAST AIR BASIN	X		
LAKE COUNTY AIR BASIN			X	NORTH COAST AIR BASIN			
LAKE TAHOE AIR BASIN	X			Del Norte, Sonoma (portion) and Trinity Counties			X
MOJAVE DESERT AIR BASIN	X			Remainder of Air Basin	X		
MOUNTAIN COUNTIES AIR BASIN				NORTHEAST PLATEAU AIR BASIN			
Amador County		X		Siskiyou County			X
Calaveras County	X			Remainder of Air Basin		X	
El Dorado County (portion)	X			SACRAMENTO VALLEY AIR BASIN			
Mariposa County				Shasta County			X
- Yosemite National Park	X			Remainder of Air Basin	X		
- Remainder of County		X		SALTON SEA AIR BASIN	X		
Nevada County	X			SAN DIEGO AIR BASIN	X		
Placer County (portion)	X			SAN FRANCISCO BAY AREA AIR BASIN	X		
Plumas County	X			SAN JOAQUIN VALLEY AIR BASIN	X		
Sierra County	X			SOUTH CENTRAL COAST AIR BASIN	X		
Tuolumne County		X		SOUTH COAST AIR BASIN	X		

FIGURE 3



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 3

California Ambient Air Quality Standards
Area Designations for Fine Particulate Matter (PM2.5)

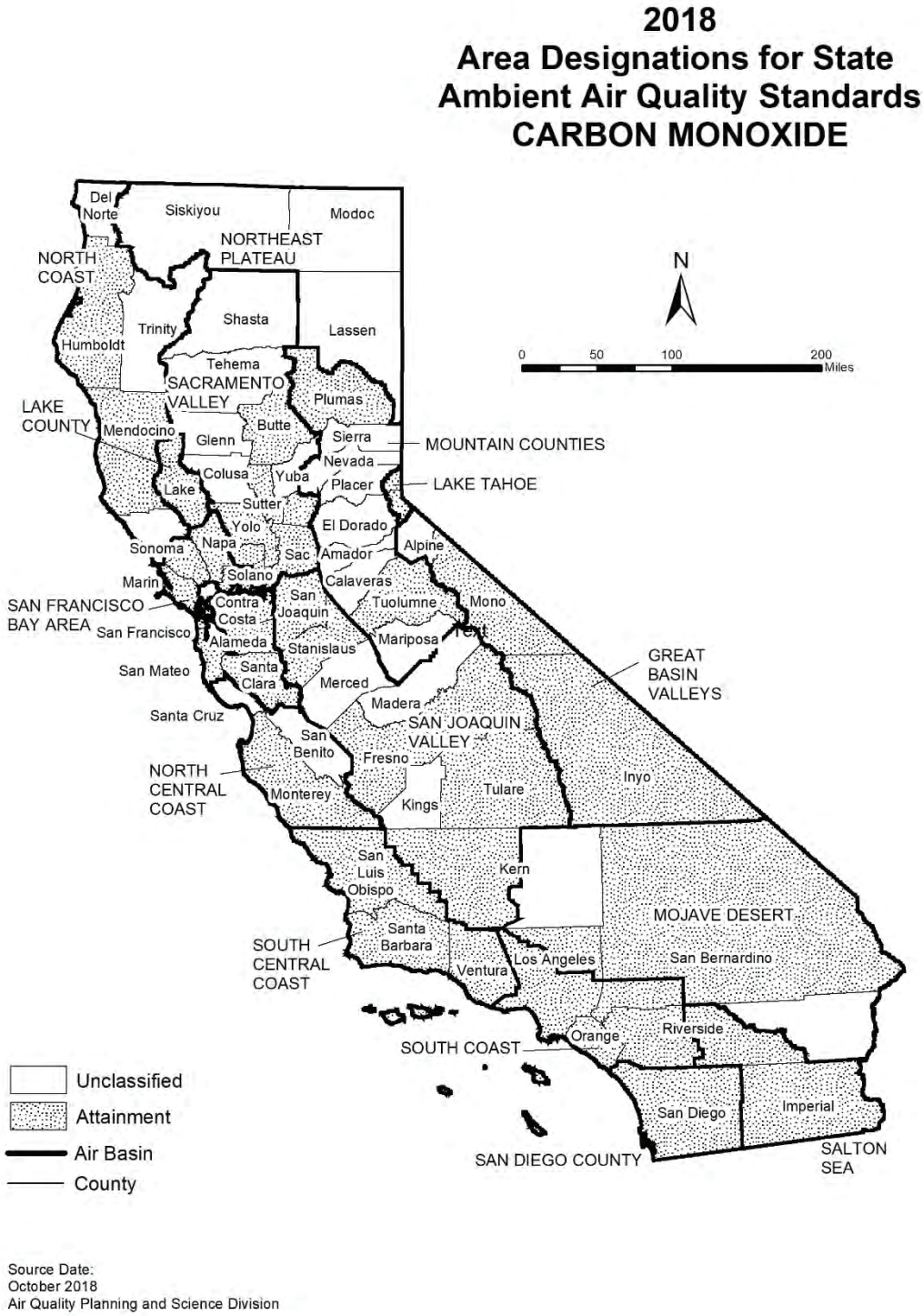
	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SALTON SEA AIR BASIN			
LAKE COUNTY AIR BASIN			X	Imperial County			
LAKE TAHOE AIR BASIN			X	- City of Calexico (3)	X		
MOJAVE DESERT AIR BASIN				Remainder of Air Basin			X
San Bernardino County				SAN DIEGO AIR BASIN	X		
- County portion of federal Southeast Desert Modified AQMA for Ozone (1)			X	SAN FRANCISCO BAY AREA AIR BASIN	X		
				SAN JOAQUIN VALLEY AIR BASIN	X		
Remainder of Air Basin		X		SOUTH CENTRAL COAST AIR BASIN			
MOUNTAIN COUNTIES AIR BASIN				San Luis Obispo County			X
Plumas County				Santa Barbara County		X	
- Portola Valley (2)	X			Ventura County			X
Remainder of Air Basin		X		SOUTH COAST AIR BASIN	X		
NORTH CENTRAL COAST AIR BASIN			X				
NORTH COAST AIR BASIN			X				
NORTHEAST PLATEAU AIR BASIN			X				
SACRAMENTO VALLEY AIR BASIN							
Butte County	X						
Colusa County			X				
Glenn County			X				
Placer County (portion)			X				
Sacramento County			X				
Shasta County			X				
Sutter and Yuba Counties			X				
Remainder of Air Basin		X					

(1) California Code of Regulations, title 17, section 60200(b)

(2) California Code of Regulations, title 17, section 60200(c)

(3) California Code of Regulations, title 17, section 60200(a)

FIGURE 4



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 4

California Ambient Air Quality Standards
Area Designation for Carbon Monoxide*

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					SACRAMENTO VALLEY AIR BASIN				
Alpine County			X		Butte County				X
Inyo County				X	Colusa County			X	
Mono County				X	Glenn County			X	
LAKE COUNTY AIR BASIN				X	Placer County (portion)				X
LAKE TAHOE AIR BASIN				X	Sacramento County				X
MOJAVE DESERT AIR BASIN					Shasta County			X	
Kern County (portion)			X		Solano County (portion)				X
Los Angeles County (portion)				X	Sutter County				X
Riverside County (portion)			X		Tehama County			X	
San Bernardino County (portion)				X	Yolo County				X
MOUNTAIN COUNTIES AIR BASIN					Yuba County			X	
Amador County			X		SALTON SEA AIR BASIN				X
Calaveras County			X		SAN DIEGO AIR BASIN				X
El Dorado County (portion)			X		SAN FRANCISCO BAY AREA AIR BASIN				X
Mariposa County			X		SAN JOAQUIN VALLEY AIR BASIN				
Nevada County			X		Fresno County				X
Placer County (portion)			X		Kern County (portion)				X
Plumas County				X	Kings County			X	
Sierra County			X		Madera County			X	
Tuolumne County				X	Merced County			X	
NORTH CENTRAL COAST AIR BASIN					San Joaquin County				X
Monterey County				X	Stanislaus County				X
San Benito County			X		Tulare County				X
Santa Cruz County			X		SOUTH CENTRAL COAST AIR BASIN				X
NORTH COAST AIR BASIN					SOUTH COAST AIR BASIN				X
Del Norte County			X						
Humboldt County				X					
Mendocino County				X					
Sonoma County (portion)			X						
Trinity County			X						
NORTHEAST PLATEAU AIR BASIN			X						

* The area designated for carbon monoxide is a county or portion of a county

FIGURE 5



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 5

California Ambient Air Quality Standards
Area Designation for Nitrogen Dioxide

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SACRAMENTO VALLEY AIR BASIN			X
LAKE COUNTY AIR BASIN			X	SALTON SEA AIR BASIN			X
LAKE TAHOE AIR BASIN			X	SAN DIEGO AIR BASIN			X
MOJAVE DESERT AIR BASIN			X	SAN FRANCISCO BAY AREA AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X	SAN JOAQUIN VALLEY AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X	SOUTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X	SOUTH COAST AIR BASIN			
NORTHEAST PLATEAU AIR BASIN			X	CA 60 Near-road Portion of San Bernardino, Riverside, and Los Angeles Counties	X		
				Remainder of Air Basin			X

FIGURE 6



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 6

California Ambient Air Quality Standards
Area Designation for Sulfur Dioxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SALTON SEA AIR BASIN		X
LAKE TAHOE AIR BASIN		X	SAN DIEGO AIR BASIN		X
MOJAVE DESERT AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X			

* The area designated for sulfur dioxide is a county or portion of a county

FIGURE 7



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 7

California Ambient Air Quality Standards
Area Designation for Sulfates

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SACRAMENTO VALLEY AIR BASIN			X
LAKE COUNTY AIR BASIN			X	SALTON SEA AIR BASIN			X
LAKE TAHOE AIR BASIN			X	SAN DIEGO AIR BASIN			X
MOJAVE DESERT AIR BASIN			X	SAN FRANCISCO BAY AREA AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X	SAN JOAQUIN VALLEY AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X	SOUTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X	SOUTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X				

FIGURE 8



Source Date:
October 2018
Air Quality Planning and Science Division

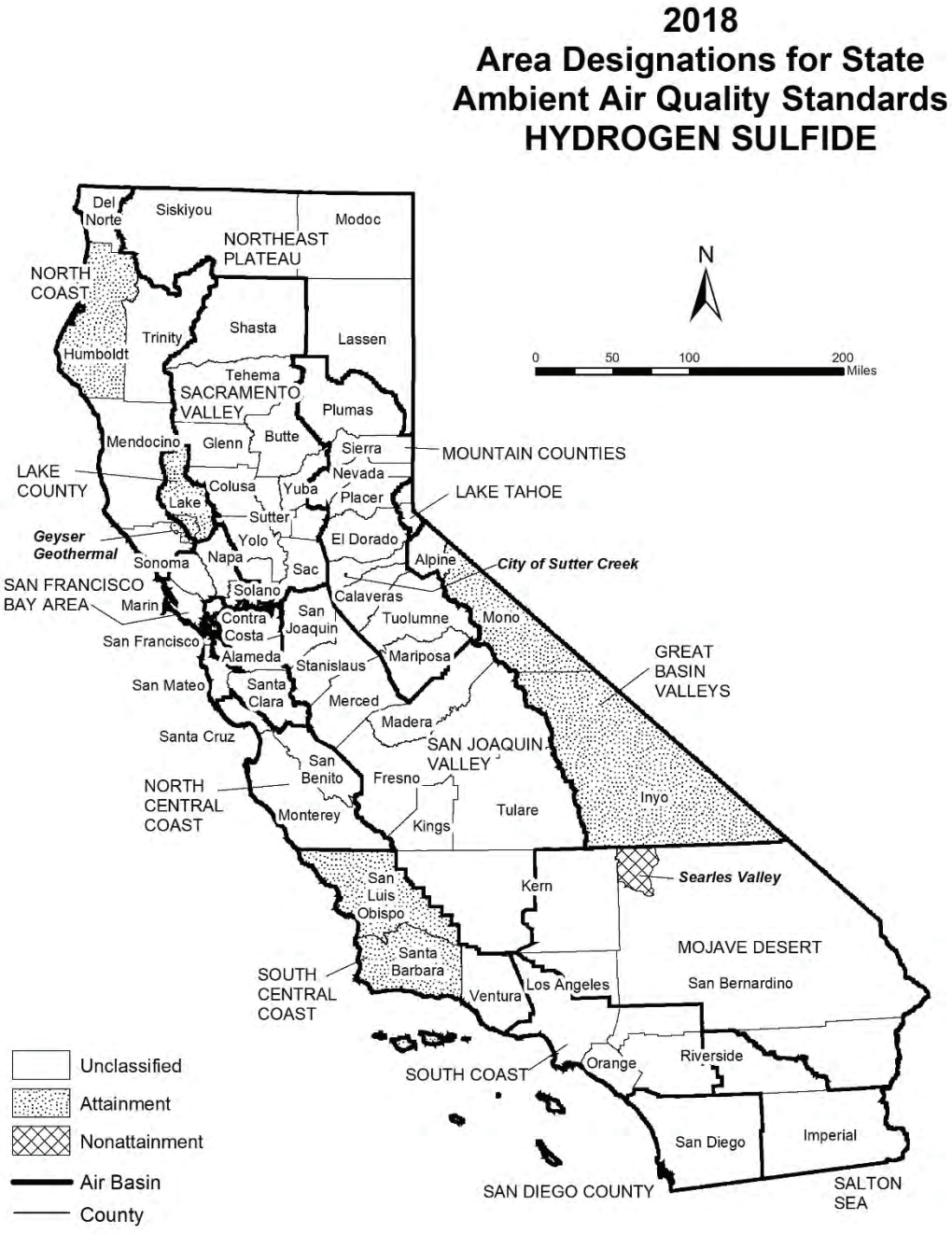
TABLE 8

California Ambient Air Quality Standards
Area Designations for Lead (particulate)*

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SALTON SEA AIR BASIN			X
LAKE COUNTY AIR BASIN			X	SAN DIEGO AIR BASIN			X
LAKE TAHOE AIR BASIN			X	SAN FRANCISCO BAY AREA AIR BASIN			X
MOJAVE DESERT AIR BASIN			X	SAN JOAQUIN VALLEY AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X	SOUTH CENTRAL COAST AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X	SOUTH COAST AIR BASIN			X
NORTH COAST AIR BASIN			X				
NORTHEAST PLATEAU AIR BASIN			X				
SACRAMENTO VALLEY AIR BASIN			X				

* The area designated for lead is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

FIGURE 9



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 9

California Ambient Air Quality Standards
Area Designation for Hydrogen Sulfide*

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					NORTH CENTRAL COAST AIR BASIN			X	
Alpine County			X		NORTH COAST AIR BASIN				
Inyo County				X	Del Norte County			X	
Mono County				X	Humboldt County				X
LAKE COUNTY AIR BASIN				X	Mendocino County			X	
LAKE TAHOE AIR BASIN			X		Sonoma County (portion)				
MOJAVE DESERT AIR BASIN					- Geyser Geothermal Area (2)				X
Kern County (portion)			X		- Remainder of County			X	
Los Angeles County (portion)			X		Trinity County			X	
Riverside County (portion)			X		NORTHEAST PLATEAU AIR BASIN			X	
San Bernardino County (portion)					SACRAMENTO VALLEY AIR BASIN			X	
- Searles Valley Planning Area (1)	X				SALTON SEA AIR BASIN			X	
- Remainder of County			X		SAN DIEGO AIR BASIN			X	
MOUNTAIN COUNTIES AIR BASIN					SAN FRANCISCO BAY AREA AIR BASIN			X	
Amador County					SAN JOAQUIN VALLEY AIR BASIN			X	
- City of Sutter Creek	X				SOUTH CENTRAL COAST AIR BASIN				
- Remainder of County			X		San Luis Obispo County				X
Calaveras County			X		Santa Barbara County				X
El Dorado County (portion)			X		Ventura County			X	
Mariposa County			X		SOUTH COAST AIR BASIN			X	
Nevada County			X						
Placer County (portion)			X						
Plumas County			X						
Sierra County			X						
Tuolumne County			X						

* The area designated for hydrogen sulfide is a county or portion of a county

(1) 52 Federal Register 29384 (August 7, 1987)

(2) California Code of Regulations, title 17, section 60200(d)

FIGURE 10

2018
Area Designations for State Ambient Air Quality Standards
VISIBILITY REDUCING PARTICLES



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 10

California Ambient Air Quality Standards
Area Designation for Visibility Reducing Particles

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN			X		SACRAMENTO VALLEY AIR BASIN			X	
LAKE COUNTY AIR BASIN				X	SALTON SEA AIR BASIN			X	
LAKE TAHOE AIR BASIN			X		SAN DIEGO AIR BASIN			X	
MOJAVE DESERT AIR BASIN			X		SAN FRANCISCO BAY AREA AIR BASIN			X	
MOUNTAIN COUNTIES AIR BASIN			X		SAN JOAQUIN VALLEY AIR BASIN			X	
NORTH CENTRAL COAST AIR BASIN			X		SOUTH CENTRAL COAST AIR BASIN			X	
NORTH COAST AIR BASIN			X		SOUTH COAST AIR BASIN			X	
NORTHEAST PLATEAU AIR BASIN			X						

Area Designations for the National Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a national ambient air quality standard. Additional information about the federal area designations is available on the U.S. EPA website:

https://www.epa.gov/green-book

Over the last several years, U.S. EPA has been reviewing the levels of the various national standards. The agency has already promulgated new standard levels for some pollutants and is considering revising the levels for others. Information about the status of these reviews is available on the U.S. EPA website:

https://www.epa.gov/criteria-air-pollutants

Designation Categories

Suspended Particulate Matter (PM_{10}). The U.S. EPA uses three categories to designate areas with respect to PM_{10}:

- Attainment
- Nonattainment
- Unclassifiable

Ozone, Fine Suspended Particulate Matter ($PM_{2.5}$), Carbon Monoxide (CO), and Nitrogen Dioxide (NO_2). The U.S. EPA uses two categories to designate areas with respect to these standards:

- Nonattainment
- Unclassifiable/Attainment

The national 1-hour ozone standard was revoked effective June 15, 2005, and the area designations map reflects the 2015 national 8-hour ozone standard of 0.070 ppm. Original designations were finalized on August 3, 2018.

On December 14, 2012, the U.S. EPA established a new national annual primary $PM_{2.5}$ standard of 12.0 $\mu g/m^3$. New area designations reflecting this revised standard became final in December 2014. The current designation map reflects the most recently revised (2012) annual average standard of 12.0 $\mu g/m^3$ as well as the 24-hour standard of 35 $\mu g/m^3$, revised in 2006.

On January 22, 2010, the U.S. EPA established a new national 1-hour NO_2 standard of 100 parts per billion (ppb) and retained the annual average standard of 53 ppb. Designations for the primary NO_2 standard became effective on February 29, 2012. All areas of California meet this standard.

Sulfur Dioxide (SO_2). The U.S. EPA uses three categories to designate areas with respect to the 24-hour and annual average sulfur dioxide standards. These designation categories are:

- Nonattainment,
- Unclassifiable, and
- Attainment/Unclassifiable.

On June 2, 2010, the U.S. EPA established a new primary 1-hour SO_2 standard of 75 parts per billion (ppb). At the same time, U.S. EPA revoked the 24-hour and annual

average standards. Area designations for the 1-hour SO_2 standard were finalized on December 21, 2017 and are reflected in the area designations map.

Lead (particulate). The U.S. EPA promulgated a new rolling 3-month average lead standard in October 2008 of 0.15 µg/m^3. Designations were made for this standard in November 2010.

Designation Areas

From time to time, the boundaries of the California air basins have been changed to facilitate the planning process. CARB generally initiates these changes, and they are not always reflected in the U.S. EPA's area designations. For purposes of consistency, the maps in this attachment reflect area designation boundaries and nomenclature as promulgated by the U.S. EPA. In some cases, these may not be the same as those adopted by CARB. For example, the national area designations reflect the former Southeast Desert Air Basin. In accordance with Health and Safety Code section 39606.1, CARB redefined this area in 1996 to be the Mojave Desert Air Basin and Salton Sea Air Basin. The definitions and boundaries for all areas designated for the national standards can be found in Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 81.305. They are available on the web at:

https://ecfr.io/Title-40/se40.20.81_1305

FIGURE 11

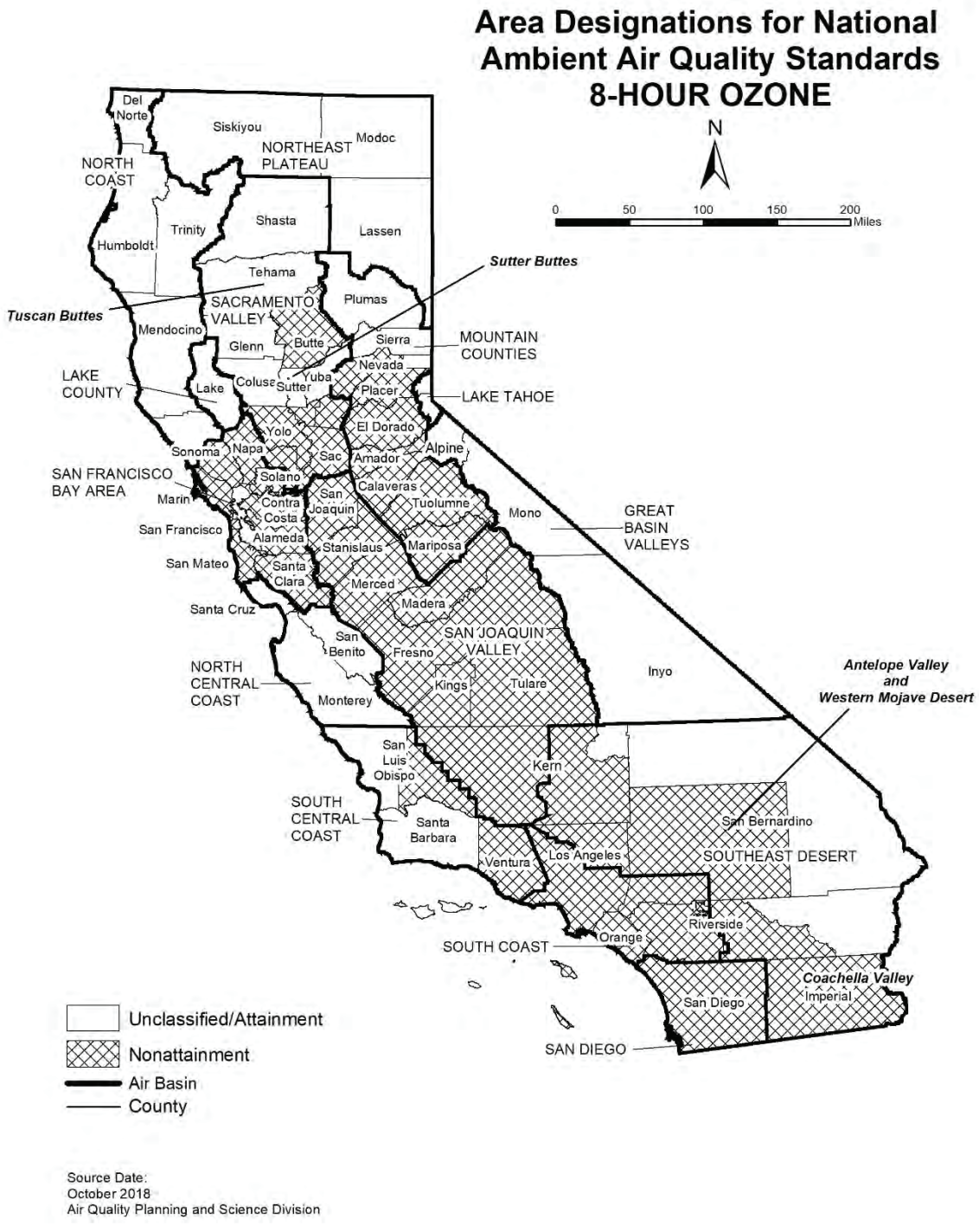

Area Designations for National Ambient Air Quality Standards
8-HOUR OZONE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
Sutter Buttes
Tuscan Buttes
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Marin
Contra Costa
San Joaquin
Calaveras
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
SAN JOAQUIN VALLEY
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Antelope Valley and Western Mojave Desert
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Orange
SOUTH COAST
Coachella Valley
Imperial
San Diego
SAN DIEGO
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 11

National Ambient Air Quality Standards
Area Designations for 8-Hour Ozone*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN (cont.)		
LAKE COUNTY AIR BASIN		X	Yolo County (2)	X	
LAKE TAHOE AIR BASIN		X	Yuba County		X
MOUNTAIN COUNTIES AIR BASIN			SAN DIEGO COUNTY	X	
Amador County	X		SAN FRANCISCO BAY AREA AIR BASIN	X	
Calaveras County	X		SAN JOAQUIN VALLEY AIR BASIN	X	
El Dorado County (portion) (2)	X		SOUTH CENTRAL COAST AIR BASIN (1)		
Mariposa County	X		San Luis Obispo County		
Nevada County			- Eastern San Luis Obispo County	X	
- Western Nevada County	X		- Remainder of County		X
- Remainder of County		X	Santa Barbara County		X
Placer County (portion) (2)	X		Ventura County		
Plumas County		X	- Area excluding Anacapa and San Nicolas Islands	X	
Sierra County		X	- Channel Islands (1)		X
Tuolumne County	X		SOUTH COAST AIR BASIN (1)	X	
NORTH CENTRAL COAST AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		
NORTH COAST AIR BASIN		X	Kern County (portion)	X	
NORTHEAST PLATEAU AIR BASIN		X	- Indian Wells Valley		X
SACRAMENTO VALLEY AIR BASIN			Imperial County	X	
Butte County	X		Los Angeles County (portion)	X	
Colusa County		X	Riverside County (portion)		
Glenn County		X	- Coachella Valley	X	
Sacramento Metro Area (2)	X		- Non-AQMA portion		X
Shasta County		X	San Bernardino County		
Sutter County			- Western portion (AQMA)	X	
- Sutter Buttes	X		- Eastern portion (non-AQMA)		X
- Southern portion of Sutter County (2)	X				
- Remainder of Sutter County		X			
Tehama County					
- Tuscan Buttes	X				
- Remainder of Tehama County		X			

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

NOTE: This map and table reflect the 2015 8-hour ozone standard of 0.070 ppm.

(1) South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.

South Coast Air Basin:
Los Angeles County includes San Clemente and Santa Catalina Islands.

(2) For this purpose, the Sacramento Metro Area comprises all of Sacramento and Yolo Counties, the Sacramento Valley Air Basin portion of Solano County, the southern portion of Sutter County, and the Sacramento Valley and Mountain Counties Air Basins portions of Placer and El Dorado counties.

FIGURE 12


Area Designations for National Ambient Air Quality Standards PM10
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Shasta
Lassen
Trinity
Humboldt
Tehema
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Lake
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Alpine
Sacramento County
Sonoma
Napa
Sac
Amador
SAN FRANCISCO BAY AREA
Marin
Solano
Calaveras
Mono
Mono Basin
San Joaquin
Contra Costa
Tuolumne
Mammoth Lake
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Inyo
Santa Cruz
San Benito
Fresno
SAN JOAQUIN VALLEY
Owens Valley
Coso Junction
Trona
NORTH CENTRAL COAST
Monterey
Kings
Tulare
San Luis Obispo
Kern
Indian Wells Valley
San Bernardino
SOUTH CENTRAL COAST
Santa Barbara
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Coachella Valley
Orange
SOUTH COAST
Imperial
San Diego
SAN DIEGO COUNTY
Unclassified
Attainment
Nonattainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 12

National Ambient Air Quality Standards
Area Designations for Suspended Particulate Matter (PM10)*

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN				SAN DIEGO COUNTY		X	
Alpine County		X		SAN FRANCISCO BAY AREA AIR BASIN		X	
Inyo County				SAN JOAQUIN VALLEY AIR BASIN			X
- Owens Valley Planning Area	X			SOUTH CENTRAL COAST AIR BASIN		X	
- Coso Junction			X	SOUTH COAST AIR BASIN			X
- Remainder of County		X		SOUTHEAST DESERT AIR BASIN			
Mono County				Eastern Kern County			
- Mammoth Lake Planning Area			X	- Indian Wells Valley			X
- Mono Lake Basin	X			- Portion within San Joaquin Valley Planning Area	X		
- Remainder of County		X		- Remainder of County		X	
LAKE COUNTY AIR BASIN		X		Imperial County			
LAKE TAHOE AIR BASIN		X		- Imperial Valley Planning Area	X		
MOUNTAIN COUNTIES AIR BASIN				- Remainder of County		X	
Placer County (portion) (2)		X		Los Angeles County (portion)		X	
Remainder of Air Basin		X		Riverside County (portion)			
NORTH CENTRAL COAST AIR BASIN		X		- Coachella Valley (3)	X		
NORTH COAST AIR BASIN		X		- Non-AQMA portion		X	
NORTHEAST PLATEAU AIR BASIN		X		San Bernardino County			
SACRAMENTO VALLEY AIR BASIN				- Trona	X		
Butte County		X		- Remainder of County	X		
Colusa County		X					
Glenn County		X					
Placer County (portion) (2)		X					
Sacramento County (1)			X				
Shasta County		X					
Solano County (portion)		X					
Sutter County		X					
Tehama County		X					
Yolo County		X					
Yuba County		X					

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
(1) Air quality in Sacramento County meets the national PM10 standards. The request for redesignation to attainment was approved by U.S. EPA in September 2013.
(2) U.S. EPA designation puts the Sacramento Valley Air Basin portion of Placer County in the Mountain Counties Air Basin.
(3) Air quality in Coachella Valley meets the national PM10 standards. A request for redesignation to attainment has been submitted to U.S. EPA.

FIGURE 13


Area Designations for National Ambient Air Quality Standards PM2.5
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTH COAST
NORTHEAST PLATEAU
Humboldt
Trinity
Shasta
Lassen
Tehama
SACRAMENTO VALLEY
Plumas
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Mendocino
Nevada
LAKE COUNTY
Colusa
Yuba
Placer
Lake
Sutter
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sacramento
Alpine
Amador
Solano
Calaveras
SAN FRANCISCO BAY AREA
Marin
Tuolumne
GREAT BASIN VALLEYS
Contra Costa
San Joaquin
Mono
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
Fresno
NORTH CENTRAL COAST
San Benito
SAN JOAQUIN VALLEY
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
SOUTHEAST DESERT
Ventura
Los Angeles
Orange
Riverside
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 13

National Ambient Air Quality Standards
Area Designations for Fine Particulate Matter (PM2.5)*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE COUNTY AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN (2)	X	
LAKE TAHOE AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN	X	
MOUNTAIN COUNTIES AIR BASIN			SOUTH CENTRAL COAST AIR BASIN		X
Plumas County			SOUTH COAST AIR BASIN (3)	X	
- Portola Valley Portion of Plumas	X		SOUTHEAST DESERT AIR BASIN		
- Remainder of Plumas County		X	Imperial County (portion) (4)	X	
Remainder of Air Basin		X	Remainder of Air Basin		X
NORTH CENTRAL COAST AIR BASIN		X			
NORTH COAST AIR BASIN		X			
NORTHEAST PLATEAU AIR BASIN		X			
SACRAMENTO VALLEY AIR BASIN					
Sacramento Metro Area (1)	X				
Sutter County		X			
Yuba County (portion)		X			
Remainder of Air Basin		X			

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305. This map reflects the 2006 24-hour PM2.5 standard as well as the 1997 and 2012 PM2.5 annual standards.

(1) For this purpose, Sacramento Metro Area comprises all of Sacramento and portions of El Dorado, Placer, Solano, and Yolo Counties. Air quality in this area meets the national PM2.5 standards. A Determination of Attainment for the 2006 24-hour PM2.5 standard was made by U.S. EPA in June 2017.

(2) Air quality in this area meets the national PM2.5 standards. A Determination of Attainment for the 2006 24-hour PM2.5 standard was made by U.S. EPA in June 2017.

(3) Those lands of the Santa Rosa Band of Cahulla Mission Indians in Riverside County are designated Unclassifiable/Attainment.

(4) That portion of Imperial County encompassing the urban and surrounding areas of Brawley, Calexico, El Centro, Heber, Holtville, Imperial, Seeley, and Westmorland. Air quality in this area meets the national PM2.5 standards. A Determination of Attainment for the 2006 24-hour PM2.5 standard was made by U.S. EPA in June 2017.

FIGURE 14


Area Designations for National Ambient Air Quality Standards
CARBON MONOXIDE
N
0 50 100 150 200
Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
Colusa
Lake
Sutter
Yuba
Placer
LAKE TAHOE
LAKE COUNTY
Yolo
El Dorado
Napa
Alpine
Sonoma
Sac
Amador
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
San Joaquin
Contra Costa
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Tulare
Inyo
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
SOUTHEAST DESERT
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 14

National Ambient Air Quality Standards
Area Designations for Carbon Monoxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE TAHOE AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 15



Source Date:
October 2018
Air Quality Planning and Science Division

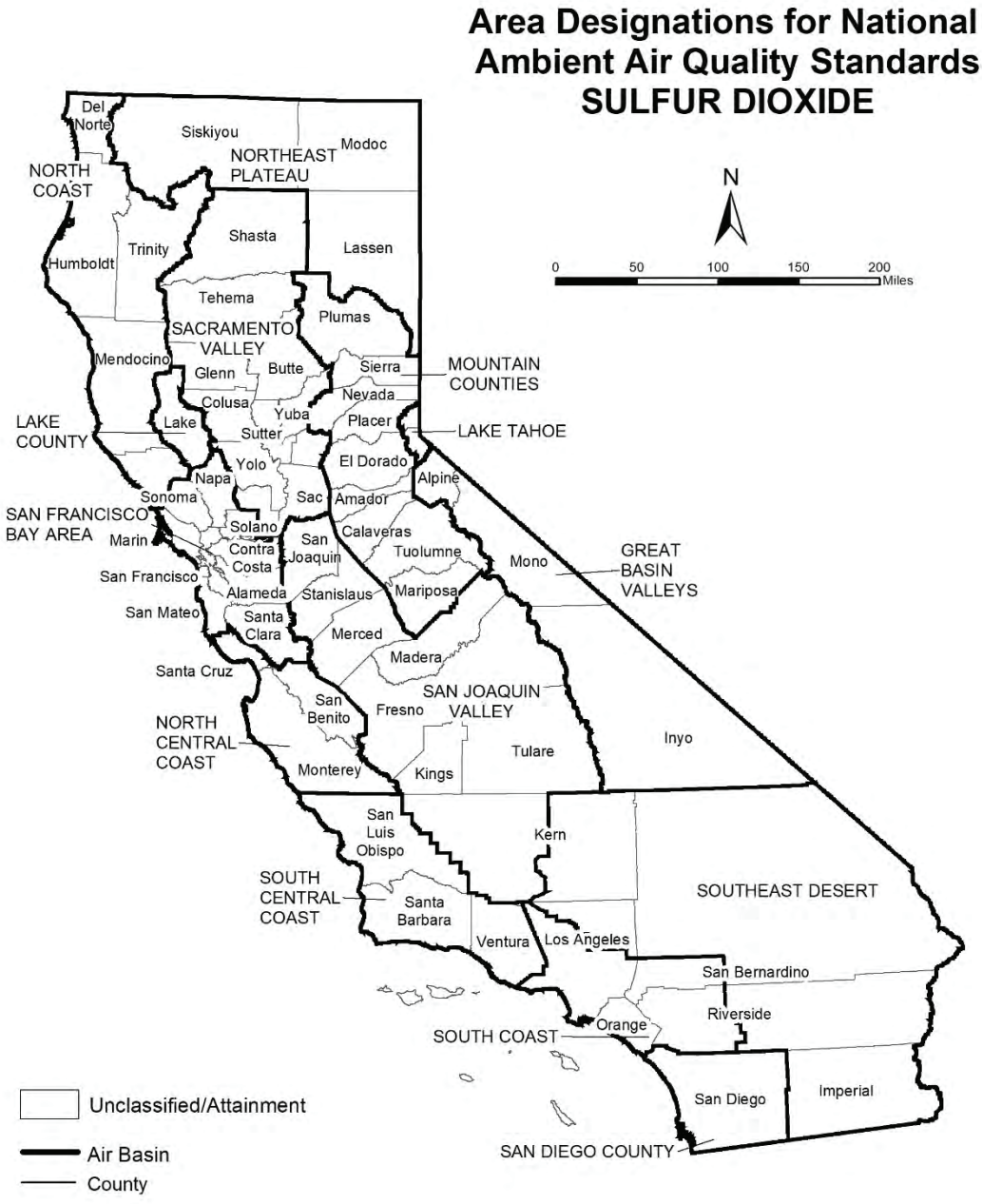
TABLE 15

National Ambient Air Quality Standards
Area Designations for Nitrogen Dioxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE TAHOE AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 16



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 16

National Ambient Air Quality Standards
Area Designations for Sulfur Dioxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		
LAKE COUNTY AIR BASIN		X	San Luis Obispo County		X
LAKE TAHOE AIR BASIN		X	Santa Barbara County		X
MOUNTAIN COUNTIES AIR BASIN		X	Ventura County		X
NORTH CENTRAL COAST AIR BASIN		X	Channel Islands (1)		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		
SACRAMENTO VALLEY AIR BASIN		X	Imperial County		X
SAN DIEGO COUNTY		X	Remainder of Air Basin		X
SAN FRANCISCO BAY AREA AIR BASIN		X			
SAN JOAQUIN VALLEY AIR BASIN					
Fresno County		X			
Kern County (portion)		X			
Kings County		X			
Madera County		X			
Merced County		X			
San Joaquin County		X			
Stanislaus County		X			
Tulare County		X			

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

NOTE: This map and table reflect the 2010 1-hour SO_2 standard of 75 ppb.

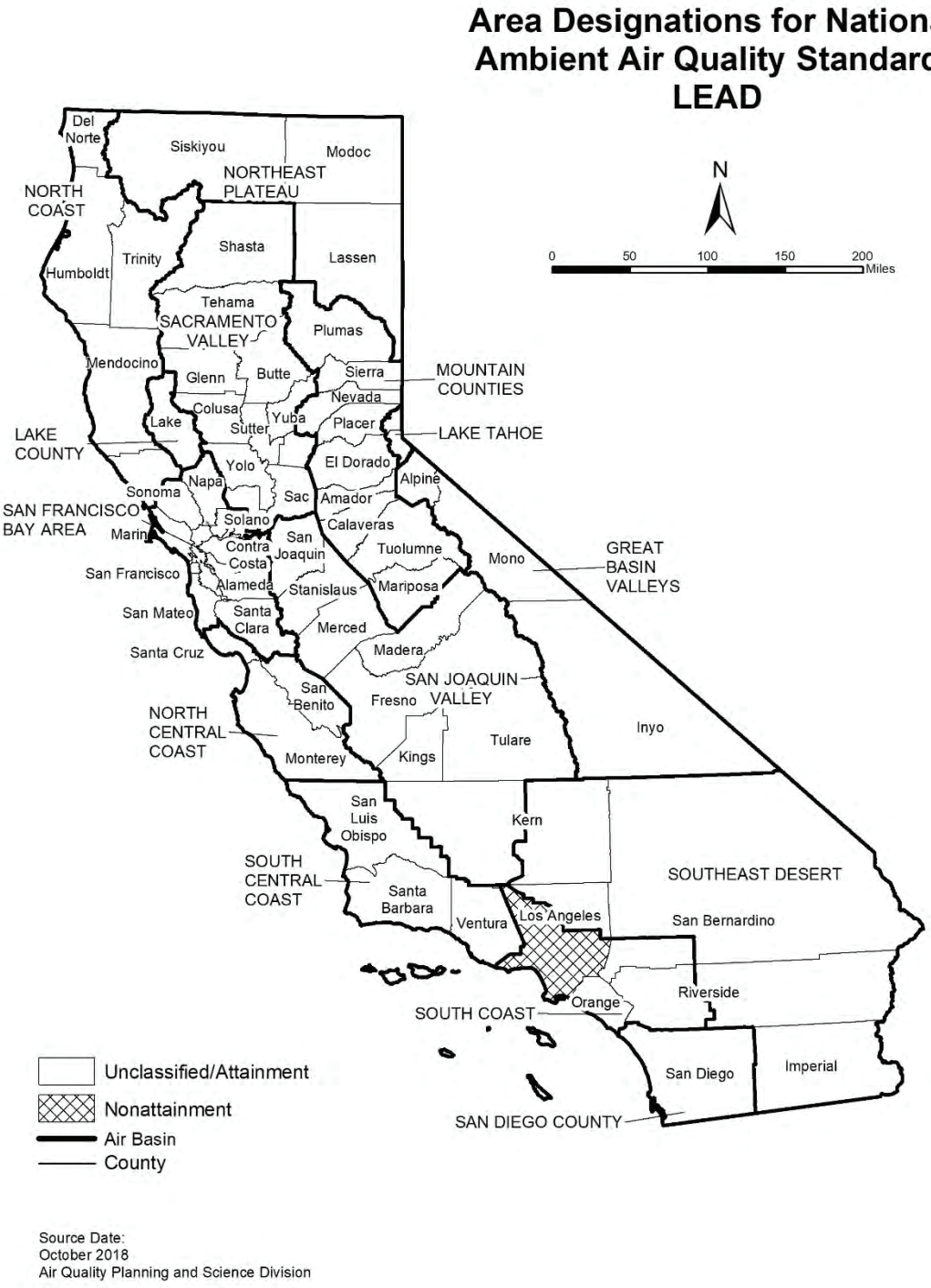
(1) South Central Coast Air Basin Channel Islands:

Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.

Ventura County includes Anacapa and San Nicolas Islands.

Note that the San Clemente and Santa Catalina Islands are considered part of Los Angeles County, and therefore, are included as part of the South Coast Air Basin.

FIGURE 17



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 17

National Ambient Air Quality Standards
Area Designations for Lead (particulate)

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE COUNTY AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
LAKE TAHOE AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH COAST AIR BASIN		
NORTH COAST AIR BASIN		X	Los Angeles County (portion) (1)	X	
NORTHEAST PLATEAU AIR BASIN		X	Remainder of Air Basin		X
SACRAMENTO VALLEY AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

(1) Portion of County in Air Basin, not including Channel Islands

APPENDIX 3.1:

EMFAC2017 OUTPUT

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EMFAC2017 Derived CalEEMod Annual Emission Rates: Year 2040[1,2]

Season	Pollutant	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	MCY	SBUS	MH
Annual	CH4_IDLEX	0	0	0	0	0.0034148	0.002200959	0.002202974	0.027513711	0.0084188	0	0	0.0591195	0
Annual	CH4_RUNEX	0.0007005	0.0008856	0.0010698	0.0011646	0.0016435	0.001912824	0.000516025	0.082465793	0.0017929	4.4787723	0.3371296	0.0012442	0.0025726
Annual	CH4_STREX	0.0184777	0.0213176	0.0255607	0.0277092	0.0058039	0.003288138	0.004482094	1.98897E-07	0.0179989	0.007248	0.2285185	0.0049266	0
Annual	CO_IDLEX	0	0	0	0	0.1696665	0.129253365	0.288226312	6.594680128	0.5853213	0	0	2.8492274	0
Annual	CO_RUNEX	0.4079701	0.4441706	0.5003084	0.5063966	0.1718512	0.201157091	0.083631745	0.499918412	0.1913012	34.940218	17.153951	0.1557548	0.186181
Annual	CO_STREX	1.3460791	1.4639727	1.8192866	1.8554871	0.7282975	0.424038004	0.409173132	0.003524521	1.7459858	0.9030848	8.8576161	0.6295947	0
Annual	CO2_NBIO_IDLEX	0	0	0	0	7.6759097	12.1940482	48.24626411	862.1496196	71.511921	0	0	275.60884	0
Annual	CO2_NBIO_RUNEX	210.29758	250.97064	249.20215	302.34489	527.3362	527.0145992	777.2779408	1052.276366	1108.1094	1641.1972	213.74638	868.82631	823.9452
Annual	CO2_NBIO_STREX	41.144898	50.236409	50.015286	60.003154	8.5051727	5.722446462	4.32060618	0.026782913	15.662971	9.7191462	57.160369	3.8411367	0
Annual	NOX_IDLEX	0	0	0	0	0.0387528	0.05904946	0.259478732	5.340241796	0.3287317	0	0	1.2873931	0
Annual	NOX_RUNEX	0.0166519	0.0199869	0.0198569	0.022656	0.1170345	0.207345054	1.08042479	2.308932068	0.9189142	0.3512453	1.1148507	1.4167012	2.4730515
Annual	NOX_STREX[3]	0.1073172	0.1246128	0.1203986	0.1350663	0.1586532	0.095700979	1.892901492	2.43060668	0.8166144	0.0960303	0.2627524	1.943158	0
Annual	PM10_IDLEX	0	0	0	0	0.0010131	0.00149738	7.06182E-05	0.002023308	0.0001104	0	0	0.0003378	0
Annual	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.06052191	0.13034	0.0728339	0.01176	0.7448002	0.13034
Annual	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100175	0.010875472	0.012000003	0.035283881	0.012	0.026486	0.004	0.0109168	0.016
Annual	PM10_RUNEX	0.0006069	0.0006977	0.0006892	0.0006865	0.0039073	0.009754285	0.006830216	0.016907652	0.0067783	0.0027211	0.0024297	0.0040328	0.0394815
Annual	PM10_STREX	0.0007664	0.0008982	0.000809	0.0008373	0.0001763	9.78334E-05	6.13665E-05	3.28077E-07	0.0002136	0.0001779	0.0029183	6.561E-05	0
Annual	PM25_IDLEX	0	0	0	0	0.0009692	0.001432604	6.75633E-05	0.001935781	0.0001056	0	0	0.0003232	0
Annual	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025937961	0.05586	0.0312145	0.00504	0.3192001	0.05586
Annual	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025044	0.002718868	0.003000001	0.00882097	0.003	0.0066215	0.001	0.0027292	0.004
Annual	PM25_RUNEX	0.0005584	0.0006416	0.0006353	0.0006325	0.0037154	0.009319663	0.006531451	0.016176217	0.0064658	0.0025884	0.0022652	0.0038431	0.0377735
Annual	PM25_STREX	0.0007047	0.0008259	0.0007439	0.0007699	0.0001621	8.99542E-05	5.64242E-05	3.01655E-07	0.0001964	0.0001636	0.002723	6.032E-05	0
Annual	ROG_DIURN	0.0206776	0.0367563	0.0428478	0.0674939	0.0012626	0.000745369	0.000212855	1.09207E-06	0.0018922	0.001939	1.4286701	0.0011603	0
Annual	ROG_HTSK	0.0392592	0.0584272	0.0533754	0.0791041	0.0336291	0.018766617	0.007226437	3.63012E-05	0.0203932	0.0109253	0.7330723	0.0076464	0
Annual	ROG_IDLEX	0	0	0	0	0.0144655	0.012228381	0.011677864	0.43816961	0.0505336	0	0	0.2766359	0
Annual	ROG_RESTL	0.0189853	0.0349658	0.0406452	0.0644712	0.0008245	0.000495458	0.000140436	7.20404E-07	0.0009552	0.0008794	0.7443163	0.0005945	0
Annual	ROG_RUNEX	0.0020202	0.002724	0.0034642	0.0039199	0.0247373	0.035091263	0.007536833	0.02074256	0.0120973	0.0653194	2.2652225	0.0141886	0.0553874
Annual	ROG_RUNLS	0.1445834	0.2175969	0.2010001	0.2286124	0.1635365	0.094087921	0.034760323	0.000175206	0.2331662	0.0406774	1.2175821	0.0491518	0
Annual	ROG_STREX	0.0671548	0.0809068	0.0989218	0.1124144	0.0253865	0.014178652	0.021225845	1.03464E-06	0.0889272	0.0242696	1.7477883	0.0278253	0
Annual	SO2_IDLEX	0	0	0	0	7.418E-05	0.000116372	0.000457243	0.007957703	0.0006808	0	0	0.0026276	0
Annual	SO2_RUNEX	0.0018645	0.0022238	0.0022094	0.0026844	0.0051316	0.005077975	0.007387088	0.009433231	0.0107308	0.0024147	0.0021152	0.0082968	0.0077892
Annual	SO2_STREX	0.0003646	0.0004451	0.0004432	0.0005317	8.417E-05	5.66282E-05	4.27559E-05	2.65039E-07	0.000155	9.618E-05	0.0005656	3.801E-05	0
Annual	TOG_DIURN	0.0210314	0.0373923	0.0435891	0.0686636	0.0012626	0.000745369	0.000212855	1.09207E-06	0.0018922	0.001939	1.4286701	0.0011603	0
Annual	TOG_HTSK	0.0399373	0.0594409	0.0543006	0.0804766	0.0336291	0.018766617	0.007226437	3.63012E-05	0.0203932	0.0109253	0.7330723	0.0076464	0
Annual	TOG_IDLEX	0	0	0	0	0.0198103	0.015922676	0.015639922	0.5060234	0.0662822	0	0	0.3969064	0
Annual	TOG_RESTL	0.0193135	0.035573	0.041351	0.0655914	0.0008245	0.000495458	0.000140436	7.20404E-07	0.0009552	0.0008794	0.7443163	0.0005945	0
Annual	TOG_RUNEX	0.0029532	0.0040098	0.0050433	0.0057024	0.0287504	0.040287266	0.008814165	0.105596771	0.0156919	4.5723385	2.8432595	0.0171895	0.0630549
Annual	TOG_RUNLS	0.1470992	0.2213831	0.2044975	0.2325902	0.1635365	0.094087921	0.034760323	0.000175206	0.2331662	0.0406774	1.2175821	0.0491518	0
Annual	TOG_STREX	0.0741878	0.08938	0.1092817	0.1241873	0.027795	0.015523839	0.023239629	1.1328E-06	0.0973641	0.0265722	1.9040655	0.0304652	0
Summer	CH4_IDLEX	0	0	0	0	0.0034233	0.00220601	0.002105988	0.029094386	0.0085094	0	0	0.0592682	0
Summer	CH4_RUNEX	0.0007951	0.001003	0.0012112	0.0013183	0.0016577	0.001920954	0.000521671	0.082466334	0.0018323	4.4787849	0.3347296	0.0012656	0.0025726
Summer	CH4_STREX	0.0161248	0.0185958	0.0222716	0.0241358	0.0055808	0.003161627	0.004311961	1.8975E-07	0.0171909	0.0065771	0.2037329	0.0041272	0
Summer	CO_IDLEX	0	0	0	0	0.1696665	0.129253365	0.257164069	6.507562012	0.5804474	0	0	2.8361106	0
Summer	CO_RUNEX	0.4929739	0.5345731	0.6019887	0.6082785	0.1731994	0.201918171	0.083961971	0.500170425	0.1941798	34.941143	17.226939	0.1573148	0.186181
Summer	CO_STREX	1.1452825	1.2441287	1.5376169	1.5667738	0.6924207	0.403206456	0.386299748	0.003327495	1.6251974	0.7702662	7.9751318	0.4560081	0
Summer	CO2_NBIO_IDLEX	0	0	0	0	7.6759097	12.1940482	47.73181924	851.2069016	70.702455	0	0	272.77263	0
Summer	CO2_NBIO_RUNEX	227.70089	268.68876	265.16778	318.14034	527.33851	527.0159054	777.2785366	1052.276777	1108.1145	1641.1988	213.76732	868.82917	823.9452
Summer	CO2_NBIO_STREX	40.764666	49.816083	49.47886	59.447476	8.4447887	5.687466568	4.281276929	0.026470461	15.457119	9.5009445	55.100473	3.5507119	0
Summer	NOX_IDLEX	0	0	0	0	0.0387528	0.05904946	0.246890941	5.080564665	0.3123825	0	0	1.229036	0
Summer	NOX_RUNEX	0.0151283	0.0181137	0.018009	0.0205428	0.111581	0.196672817	1.018033714	2.179758551	0.8630427	0.3497867	0.9641212	1.3314683	2.3313796
Summer	NOX_STREX[3]	0.1001241	0.1162605	0.1123384	0.1260174	0.1524079	0.09194082	1.890896867	2.430599318	0.8076655	0.0913106	0.2480646	1.9398425	0
Summer	PM10_IDLEX	0	0	0	0	0.0010131	0.00149738	6.23905E-05	0.001792246	9.806E-05	0	0	0.0002985	0
Summer	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.06052191	0.13034	0.0728339	0.01176	0.7448002	0.13034
Summer	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100175	0.010875472	0.012000003	0.035283881	0.012	0.026486	0.004	0.0109168	0.016
Summer	PM10_RUNEX	0.0006069	0.0006977	0.0006892	0.0006865	0.0039073	0.009754285	0.006830216	0.016907652	0.0067783	0.0027211	0.0024297	0.0040328	0.0394815
Summer	PM10_STREX	0.0007664	0.0008982	0.000809	0.0008373	0.0001763	9.78334E-05	6.13665E-05	3.28077E-07	0.0002136	0.0001779	0.0029183	6.561E-05	0
Summer	PM25_IDLEX	0	0	0	0	0.0009692	0.001432604	5.96915E-05	0.001714714	9.382E-05	0	0	0.0002856	0
Summer	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025937961	0.05586	0.0312145	0.00504	0.3192001	0.05586
Summer	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025044	0.002718868	0.003000001	0.00882097	0.003	0.0066215	0.001	0.0027292	0.004
Summer	PM25_RUNEX	0.0005584	0.0006416	0.0006353	0.0006325	0.0037154	0.009319663	0.006531451	0.016176217	0.0064658	0.0025884	0.0022652	0.0038431	0.0377735
Summer	PM25_STREX	0.0007047	0.0008259	0.0007439	0.0007699	0.0001621	8.99542E-05	5.64242E-05	3.01655E-07	0.0001964	0.0001636	0.002723	6.032E-05	0
Summer	ROG_DIURN	0.0386927	0.0683002	0.0797713	0.1255634	0.002257	0.001329692	0.000380778	1.95396E-06	0.0033605	0.0035259	2.7815421	0.002059	0
Summer	ROG_HTSK	0.042751	0.0635584	0.0597531	0.0889682	0.036573	0.020224799	0.007858086	3.95599E-05	0.0215543	0.0125583	1.0588893	0.0078887	0
Summer	ROG_IDLEX	0	0	0	0	0.0144655	0.012228381	0.011515476	0.464255741	0.051928	0	0	0.2779213	0
Summer	ROG_RESTL	0.0348655	0.06266	0.0733821	0.116185	0.0015047	0.000898219	0.000257101	1.31944E-06	0.0017636	0.0017204	1.6921051	0.0010918	0
Summer	ROG_RUNEX	0.0022616	0.0030511	0.0038614	0.004367	0.0247776	0.035114433	0.007553632	0.020745351	0.0122351	0.0653497	2.2396321	0.0142775	0.0553874
Summer	ROG_RUNLS	0.1416523	0.2136162	0.1972289	0.2245833	0.1638477	0.094138938	0.034617489	0.00017436	0.232419	0.0398162	1.1992078	0.044935	0
Summer	ROG_STREX	0.057953	0.0697583	0.0851998	0.0967918	0.0243389	0.013594634	0.020310268	9.90007E-07	0.0846392	0.0219833	1.5492524	0.023274	0
Summer	SO2_IDLEX	0	0	0	0	7.418E-05	0.000116372	0.000452439	0.007855815	0.0006731	0	0	0.0026008	0
Summer	SO2_RUNEX	0.0020187	0.0023808	0.0023508	0.0028243	0.0051316	0.005077988	0.007387094	0.009433236	0.0107308	0.0024147	0.0021154	0.0082968	0.0077892
Summer	SO2_STREX	0.0003612	0.0004414	0.0004384	0.0005268	8.357E-05	5.62821E-05	4.23667E-05	2.61947E-07	0.000153	9.402E-05	0.0005453	3.514E-05	0
Summer	TOG_DIURN	0.0393536	0.0694812	0.0811505	0.1277386	0.002257	0.001329692	0.000380778	1.95396E-06	0.0033605	0.0035259	2.7815421	0.002059	0
Summer	TOG_HTSK	0.0434899	0.0646613	0.0607893	0.0905124	0.036573	0.020224799	0.007858086	3.95599E-05	0.0215543	0.0125583	1.0588893	0.0078887	0
Summer	TOG_IDLEX	0	0	0	0	0.0198103	0.015922676	0.015314331	0.536091161	0.0678696	0	0	0.3983697	0
Summer	TOG_RESTL	0.0354658	0.0637465	0.0746544	0.1182017	0.0015047	0.000898219	0.000257101	1.31944E-06	0.0017636	0.0017204	1.6921051	0.0010918	0
Summer	TOG_RUNEX	0.0033086	0.0044914	0.005628	0.0063607	0.0288092	0.040321075	0.008838679	0.105600844	0.015893	4.5723827	2.8113586	0.0173193	0.0630549
Summer	TOG_RUNLS	0.144117	0.2173331	0.2006606	0.228491	0.1638477	0.094138938	0.034617489	0.00017436	0.232419	0.0398162	1.1992078	0.044935	0
Summer	TOG_STREX	0.0640223	0.0770639	0.0941226	0.1069286	0.026648	0.014884413	0.022237187	1.08393E-06	0.0926692	0.024069	1.6877993	0.0254821	0

Winter	CH4_IDLEX	0	0	0	0	0.0034157	0.002201463	0.002347598	0.018670878	0.0083293	0	0	0.0590194	0
Winter	CH4_RUNEX	0.0006857	0.0008674	0.0010478	0.0011407	0.0016448	0.001913586	0.000515711	0.00087438	0.0017943	4.4787727	0.3352043	0.0012429	0.0025726
Winter	CH4_STREX	0.0185824	0.0214396	0.0257158	0.0278796	0.0057801	0.003275209	0.004445664	1.97768E-07	0.0179975	0.007307	0.2261179	0.005076	0
Winter	CO_IDLEX	0	0	0	0	0.1696665	0.129253365	0.331664271	6.580569459	0.5920519	0	0	2.867341	0
Winter	CO_RUNEX	0.3915561	0.4266645	0.4806225	0.4866702	0.1719604	0.201218744	0.083644353	0.222320593	0.1914111	34.940265	16.754278	0.1556531	0.186181
Winter	CO_STREX	1.3440778	1.4623462	1.8205698	1.8572409	0.7250223	0.422172049	0.405968336	0.003496916	1.7500167	0.9162527	8.7303951	0.657998	0
Winter	CO2_NBIO_IDLEX	0	0	0	0	7.6759097	12.1940482	48.95431987	857.200398	72.629754	0	0	279.52551	0
Winter	CO2_NBIO_RUNEX	207.04866	247.66282	246.22127	299.39578	527.33639	527.0147062	777.2779637	998.4620679	1108.1096	1641.1973	213.05595	868.82613	823.9452
Winter	CO2_NBIO_STREX	41.142874	50.235351	50.019756	60.008788	8.4995947	5.719284864	4.315130148	0.026739137	15.669341	9.7406921	56.89027	3.8890187	0
Winter	NOX_IDLEX	0	0	0	0	0.0387528	0.05904946	0.276861436	5.576754473	0.351309	0	0	1.3679814	0
Winter	NOX_RUNEX	0.015926	0.0191208	0.0190042	0.0216848	0.1156109	0.204460495	1.062466053	2.256037241	0.9037378	0.3508947	1.0810881	1.3955782	2.4323188
Winter	NOX_STREX[3]	0.1066166	0.1237992	0.1196043	0.1341803	0.1565793	0.094445836	1.892399231	2.430604836	0.8143265	0.0953583	0.2608756	1.943514	0
Winter	PM10_IDLEX	0	0	0	0	0.0010131	0.00149738	8.19802E-05	0.002238359	0.0001273	0	0	0.0003921	0
Winter	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.059329741	0.13034	0.0728339	0.01176	0.7448002	0.13034
Winter	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100175	0.010875472	0.012000003	0.03458874	0.012	0.026486	0.004	0.0109168	0.016
Winter	PM10_RUNEX	0.0006069	0.0006977	0.0006892	0.0006865	0.0039073	0.009754285	0.006830216	0.016836094	0.0067783	0.0027211	0.0024297	0.0040328	0.0394815
Winter	PM10_STREX	0.0007664	0.0008982	0.000809	0.0008373	0.0001763	9.78334E-05	6.13665E-05	3.28077E-07	0.0002136	0.0001779	0.0029183	6.561E-05	0
Winter	PM25_IDLEX	0	0	0	0	0.0009692	0.001432604	7.84338E-05	0.002141529	0.0001218	0	0	0.0003752	0
Winter	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025427032	0.05586	0.0312145	0.00504	0.3192001	0.05586
Winter	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025044	0.002718868	0.003000001	0.008647185	0.003	0.0066215	0.001	0.0027292	0.004
Winter	PM25_RUNEX	0.0005584	0.0006416	0.0006353	0.0006325	0.0037154	0.009319663	0.006531451	0.016107756	0.0064658	0.0025884	0.0022652	0.0038431	0.0377735
Winter	PM25_STREX	0.0007047	0.0008259	0.0007439	0.0007699	0.0001621	8.99542E-05	5.64242E-05	3.01655E-07	0.0001964	0.0001636	0.002723	6.032E-05	0
Winter	ROG_DIURN	0.0189421	0.032968	0.0387005	0.0608239	0.0011412	0.000666698	0.000192745	9.89615E-07	0.0017383	0.001897	1.5652475	0.0010591	0
Winter	ROG_HTSK	0.0415048	0.0617422	0.0574853	0.085456	0.0355959	0.019730713	0.007628219	3.83738E-05	0.0211587	0.0119979	0.953071	0.0077878	0
Winter	ROG_IDLEX	0	0	0	0	0.0144655	0.012228381	0.01191047	0.401978878	0.048608	0	0	0.2748609	0
Winter	ROG_RESTL	0.0181426	0.0334708	0.0389238	0.0617691	0.0008158	0.000490261	0.000139262	7.14492E-07	0.0009578	0.0008837	0.6988257	0.0005963	0
Winter	ROG_RUNEX	0.0019787	0.0026679	0.0033961	0.0038432	0.0247411	0.035093423	0.007537513	0.018359961	0.0121029	0.065321	2.2499154	0.0141839	0.0553874
Winter	ROG_RUNLS	0.1673949	0.2519923	0.2332297	0.2641201	0.1774117	0.102097678	0.037951554	0.000191456	0.24866	0.0454313	1.4324448	0.0595651	0
Winter	ROG_STREX	0.0675343	0.0813717	0.0995247	0.1131117	0.0252713	0.014117901	0.021107812	1.02888E-06	0.0889216	0.0244703	1.727226	0.0286775	0
Winter	SO2_IDLEX	0	0	0	0	7.418E-05	0.000116372	0.000463854	0.008098404	0.0006914	0	0	0.0026646	0
Winter	SO2_RUNEX	0.0018357	0.0021945	0.0021829	0.0026582	0.0051316	0.005077976	0.007387088	0.009433232	0.0107308	0.0024147	0.0021084	0.0082968	0.0077892
Winter	SO2_STREX	0.0003646	0.0004451	0.0004432	0.0005317	8.411E-05	5.6597E-05	4.27017E-05	2.64605E-07	0.0001551	9.639E-05	0.000563	3.848E-05	0
Winter	TOG_DIURN	0.0192671	0.0335389	0.0393707	0.0618787	0.0011412	0.000666698	0.000192745	9.89615E-07	0.0017383	0.001897	1.5652475	0.0010591	0
Winter	TOG_HTSK	0.042222	0.0628135	0.058482	0.0869391	0.0355959	0.019730713	0.007628219	3.83738E-05	0.0211587	0.0119979	0.953071	0.0077878	0
Winter	TOG_IDLEX	0	0	0	0	0.0198103	0.015922676	0.016101742	0.457622354	0.0640901	0	0	0.3948857	0
Winter	TOG_RESTL	0.0184572	0.0340525	0.0396002	0.062843	0.0008158	0.000490261	0.000139262	7.14492E-07	0.0009578	0.0008837	0.6988257	0.0005963	0
Winter	TOG_RUNEX	0.0028922	0.0039273	0.004943	0.0055895	0.0287559	0.040290418	0.008815157	0.020940344	0.0157	4.5723409	2.8240938	0.0171826	0.0630549
Winter	TOG_RUNLS	0.1703075	0.256377	0.2372879	0.2687158	0.1774117	0.102097678	0.037951554	0.000191456	0.24866	0.0454313	1.4324448	0.0595651	0
Winter	TOG_STREX	0.0746071	0.0898936	0.1099478	0.1249577	0.0276689	0.015457324	0.023110397	1.1265E-06	0.097358	0.0267919	1.881672	0.0313983	0

1 Source: California Air Resources Board. EMFAC2017 Web Database. https://www.arb.ca.gov/emfac/2017/; California Air Pollution Control Officers Association (CAPCOA). 2017, November. California Emissions Estimator Model User's Guide, Version 2016.3.2, Appendix A.

2 Unless otherwise noted, per CalEEMod methodology, the calculated CalEEMod emission rates are derived from the emission rates obtained using the EMFAC2017 Web Database for the San Bernardino (SC) region .

3 Because EMFAC2017 provides vehicle trips data for MHDT and HHDT diesel trucks, the formula provided in Appendix A of the CalEEMod User's Guide in calculating the NO_x STREX emission rates are utilized.

APPENDIX 3.2:

CALEEMOD PROJECT CONSTRUCTION (UNMITIGATED) EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (Construction - Unmitigated)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Unrefrigerated Warehouse-No Rail	7,662.72	1000sqft	175.91	7,662,716.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Unrefrigerated Warehouse - No Rail represents the sum of the proposed Warehousing and High-Cube Transload & Short-Term Warehouse uses.

Construction Phase - Construction Schedule adjusted to meet the 2040 Operational Year.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Trips and VMT - CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips were ratioed between each phase based on the number of days.

Demolition - Quantity of debis based on total existing use.

Grading - Analysis assumes that up to 20 acres will be disturbed per day.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
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tblConstructionPhase	NumDays	420.00	140.00
tblConstructionPhase	NumDays	1,085.00	420.00
tblConstructionPhase	NumDays	10,850.00	4,290.00
tblConstructionPhase	NumDays	770.00	2,340.00

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

tblConstructionPhase	NumDays	770.00	585.00
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tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00

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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
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tblSolidWaste	SolidWasteGenerationRate	82.13	0.00

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

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tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0511e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3808e-003
tblVehicleEF	LDT1	4.7400e-004	4.4141e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4914e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6736e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6679e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1945e-003

tblVehicleEF	LDT1	4.7500e-004	4.4513e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9273e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0698e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4642e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2094e-003
tblVehicleEF	LDT2	5.3500e-004	4.4318e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0433e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2112e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8614e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3508e-003
tblVehicleEF	LDT2	5.3400e-004	4.3843e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0478e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003

tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3961e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1829e-003
tblVehicleEF	LDT2	5.3500e-004	4.4322e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4148e-003
tblVehicleEF	LHD1	1.8710e-003	1.6435e-003
tblVehicleEF	LHD1	5.1310e-003	5.8039e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12

tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	1.3480e-003	1.2626e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4200e-004	8.4166e-005
tblVehicleEF	LHD1	1.3480e-003	1.2626e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4233e-003
tblVehicleEF	LHD1	1.8860e-003	1.6577e-003
tblVehicleEF	LHD1	4.8800e-003	5.5808e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003

tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4157e-003
tblVehicleEF	LHD1	1.8730e-003	1.6448e-003
tblVehicleEF	LHD1	5.0830e-003	5.7801e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	1.2380e-003	1.1412e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
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tblVehicleEF	LHD1	1.2380e-003	1.1412e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9128e-003

tblVehicleEF	LHD2	2.0670e-003	3.2881e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01

tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
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tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1616e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005

tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	1.1630e-003	1.3297e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
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tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6282e-005
tblVehicleEF	LHD2	1.1630e-003	1.3297e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2015e-003
tblVehicleEF	LHD2	1.4870e-003	1.9136e-003
tblVehicleEF	LHD2	2.0640e-003	3.2752e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20

tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005
tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6597e-005

tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27

tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1152e-003
tblVehicleEF	MCY	6.4400e-004	5.6565e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78

tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1154e-003
tblVehicleEF	MCY	6.1700e-004	5.4526e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003

tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1084e-003
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tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1646e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004

tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9199e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6844e-003
tblVehicleEF	MDV	7.1700e-004	5.3168e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7024e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3183e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13

tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8243e-003
tblVehicleEF	MDV	7.1400e-004	5.2676e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3607e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1407e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40

tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8432e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6582e-003
tblVehicleEF	MDV	7.1600e-004	5.3173e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5895e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00

tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
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tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

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tblVehicleEF	MH	3.6990e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
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tblVehicleEF	MH	2.84	0.00
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tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
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tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	0.02	0.00

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tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MH	3.6230e-003	2.5726e-003
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tblVehicleEF	MH	0.18	0.19
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tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
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tblVehicleEF	MH	0.01	7.7892e-003

tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1603e-004
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tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.40	0.26
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tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.0618e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	3.2000e-005	6.7563e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003

tblVehicleEF	MHD	2.5200e-003	6.5315e-003
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tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5724e-004
tblVehicleEF	MHD	0.01	7.3871e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28

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tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2390e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
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tblVehicleEF	MHD	3.0000e-003	3.0000e-003
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tblVehicleEF	MHD	1.5710e-003	4.5244e-004
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tblVehicleEF	MHD	5.1100e-004	4.2367e-005
tblVehicleEF	MHD	1.2630e-003	3.8078e-004
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tblVehicleEF	MHD	0.03	0.02

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tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3476e-003
tblVehicleEF	MHD	1.5960e-003	5.1571e-004
tblVehicleEF	MHD	0.03	4.4457e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.1980e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	3.9000e-005	7.8434e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	6.1700e-004	1.9275e-004

tblVehicleEF	MHD	0.02	7.6282e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3926e-004
tblVehicleEF	MHD	0.03	7.5375e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6385e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1400e-004	4.2702e-005
tblVehicleEF	MHD	6.1700e-004	1.9275e-004
tblVehicleEF	MHD	0.02	7.6282e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3926e-004
tblVehicleEF	MHD	0.03	8.8152e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4188e-003
tblVehicleEF	OBUS	3.1180e-003	1.7929e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92

tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1036e-004
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	1.0000e-005	1.0558e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	1.7340e-003	1.8922e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5525e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8080e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8922e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5525e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23

tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5094e-003
tblVehicleEF	OBUS	3.1850e-003	1.8323e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8061e-005
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	9.0000e-006	9.3819e-005
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	3.3210e-003	3.3605e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7636e-003

tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7315e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5296e-004
tblVehicleEF	OBUS	3.3210e-003	3.3605e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7636e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3293e-003
tblVehicleEF	OBUS	3.1250e-003	1.7943e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2734e-004
tblVehicleEF	OBUS	0.13	0.13

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	1.3000e-005	1.2183e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	1.6680e-003	1.7383e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5778e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9136e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5506e-004
tblVehicleEF	OBUS	1.6680e-003	1.7383e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5778e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2442e-003

tblVehicleEF	SBUS	0.05	4.9266e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3785e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	1.7600e-004	3.2323e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	4.3930e-003	1.1603e-003
tblVehicleEF	SBUS	0.03	7.6464e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9448e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03

tblVehicleEF	SBUS	0.01	2.6276e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.7300e-004	3.8011e-005
tblVehicleEF	SBUS	4.3930e-003	1.1603e-003
tblVehicleEF	SBUS	0.03	7.6464e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9448e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2656e-003
tblVehicleEF	SBUS	0.04	4.1272e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9853e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005

tblVehicleEF	SBUS	1.4800e-004	2.8562e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6008e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.4600e-004	3.5137e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2429e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16

tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9215e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	2.1400e-004	3.7518e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	4.1430e-003	1.0591e-003
tblVehicleEF	SBUS	0.03	7.7878e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6646e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.7400e-004	3.8485e-005

tblVehicleEF	SBUS	4.1430e-003	1.0591e-003
tblVehicleEF	SBUS	0.03	7.7878e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7938e-004
tblVehicleEF	UBUS	0.07	0.07

tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.6040e-003	9.6179e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7938e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5771e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	8.8620e-003	3.5259e-003

tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.5790e-003	9.4020e-005
tblVehicleEF	UBUS	8.8620e-003	3.5259e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003

tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.6000e-003	9.6392e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
tblVehicleTrips	PR_TP	82.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	3,805,015.50	0.00
tblWater	IndoorWaterUseRate	15,220,421.71	0.00
tblWater	IndoorWaterUseRate	640,264,190.29	0.00
tblWater	IndoorWaterUseRate	1,772,004,000.00	0.00
tblWater	OutdoorWaterUseRate	422,779.50	0.00
tblWater	OutdoorWaterUseRate	9,328,645.57	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	20.4089	603.8556	125.9178	1.9109	555.0989	4.5100	559.6089	91.1371	4.2323	95.3694	0.0000	202,178.8452	202,178.8452	12.4704	0.0000	202,490.6061
2022	18.5913	548.5549	121.1083	1.8898	578.1071	3.8743	581.7597	96.7844	3.5664	100.2148	0.0000	200,022.1258	200,022.1258	12.2092	0.0000	200,327.3555
2023	8.7187	111.7456	63.3820	0.2508	36.2567	3.3706	39.6273	9.7650	3.1020	12.8670	0.0000	25,207.0488	25,207.0488	5.0473	0.0000	25,333.2300
2024	62.8713	360.9507	487.8942	2.3428	163.2780	3.1720	166.1613	43.8946	2.9193	46.5829	0.0000	239,450.7782	239,450.7782	10.4103	0.0000	239,711.0362
2025	59.3753	351.1735	454.8855	2.2879	163.2777	2.6116	165.8893	43.8945	2.4346	46.3291	0.0000	234,002.0761	234,002.0761	10.1041	0.0000	234,254.6792
2026	56.6572	347.0222	427.2642	2.2394	163.2774	2.5821	165.8595	43.8944	2.4071	46.3016	0.0000	229,177.9234	229,177.9234	9.8302	0.0000	229,423.6778
2027	54.0511	343.2301	402.8178	2.1969	163.2772	2.5368	165.8140	43.8944	2.3652	46.2596	0.0000	224,950.7221	224,950.7221	9.5757	0.0000	225,190.1155
2028	51.4177	340.0178	381.5678	2.1597	163.2771	2.4811	165.7582	43.8943	2.3139	46.2082	0.0000	221,255.3864	221,255.3864	9.3423	0.0000	221,488.9443
2029	48.5750	336.9968	361.1025	2.1271	163.2769	2.4291	165.7060	43.8943	2.2658	46.1601	0.0000	218,022.0969	218,022.0969	9.1195	0.0000	218,250.0844
2030	45.7034	315.5544	341.4620	2.1120	163.2768	1.3668	164.6436	43.8942	1.3081	45.2023	0.0000	216,342.7068	216,342.7068	7.3356	0.0000	216,526.0972
2031	42.7804	314.2782	325.8059	2.0915	163.2767	1.3277	164.6044	43.8942	1.2721	45.1663	0.0000	214,322.3857	214,322.3857	7.1544	0.0000	214,501.2463
2032	67.1785	317.0347	361.8866	2.2693	190.7177	1.4447	192.1624	51.1716	1.3839	52.5556	0.0000	232,051.8035	232,051.8035	7.2859	0.0000	232,233.9503
2033	64.4304	314.8296	346.0753	2.2481	190.7176	1.4017	192.1193	51.1716	1.3443	52.5159	0.0000	229,953.9574	229,953.9574	7.1186	0.0000	230,131.9221
2034	62.1028	312.9692	331.2084	2.2299	190.7175	1.3617	192.0792	51.1716	1.3075	52.4790	0.0000	228,162.6297	228,162.6297	6.9646	0.0000	228,336.7435
2035	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2036	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2037	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2038	64.1394	316.4701	350.7085	2.2729	191.0528	1.4787	192.5314	51.2605	1.4272	52.6876	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	64.1394	316.4701	350.7085	2.2729	191.0528	1.4787	192.5314	51.2605	1.4272	52.6876	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238
2040	56.6303	307.6490	312.7588	2.2267	191.0530	1.1265	192.1795	51.2605	1.0844	52.3449	0.0000	227,613.6757	227,613.6757	6.5811	0.0000	227,778.2032
Maximum	**67.1785**	**603.8556**	**487.8942**	**2.3428**	**578.1071**	**4.5100**	**581.7597**	**96.7844**	**4.2323**	**100.2148**	**0.0000**	**239,450.7782**	**239,450.7782**	**12.4704**	**0.0000**	**239,711.0362**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	20.4089	603.8556	125.9178	1.9109	254.5821	4.5100	259.0921	45.6362	4.2323	49.8685	0.0000	202,178.8452	202,178.8452	12.4704	0.0000	202,490.6061
2022	18.5913	548.5549	121.1083	1.8898	277.5903	3.8743	281.2430	51.2834	3.5664	54.7138	0.0000	200,022.1258	200,022.1258	12.2092	0.0000	200,327.3555
2023	8.7187	111.7456	63.3820	0.2508	15.9716	3.3706	19.3423	4.3295	3.1020	7.4315	0.0000	25,207.0488	25,207.0488	5.0473	0.0000	25,333.2300
2024	62.8713	360.9507	487.8942	2.3428	163.2780	3.1720	166.1613	43.8946	2.9193	46.5829	0.0000	239,450.7782	239,450.7782	10.4103	0.0000	239,711.0362
2025	59.3753	351.1735	454.8855	2.2879	163.2777	2.6116	165.8893	43.8945	2.4346	46.3291	0.0000	234,002.0761	234,002.0761	10.1041	0.0000	234,254.6792
2026	56.6572	347.0222	427.2642	2.2394	163.2774	2.5821	165.8595	43.8944	2.4071	46.3016	0.0000	229,177.9234	229,177.9234	9.8302	0.0000	229,423.6778
2027	54.0511	343.2301	402.8178	2.1969	163.2772	2.5368	165.8140	43.8944	2.3652	46.2596	0.0000	224,950.7221	224,950.7221	9.5757	0.0000	225,190.1155
2028	51.4177	340.0178	381.5678	2.1597	163.2771	2.4811	165.7582	43.8943	2.3139	46.2082	0.0000	221,255.3864	221,255.3864	9.3423	0.0000	221,488.9443
2029	48.5750	336.9968	361.1025	2.1271	163.2769	2.4291	165.7060	43.8943	2.2658	46.1601	0.0000	218,022.0969	218,022.0969	9.1195	0.0000	218,250.0844

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	45.7034	315.5544	341.4620	2.1120	163.2768	1.3668	164.6436	43.8942	1.3081	45.2023	0.0000	216,342.7068	216,342.7068	7.3356	0.0000	216,526.0972
2031	42.7804	314.2782	325.8059	2.0915	163.2767	1.3277	164.6044	43.8942	1.2721	45.1663	0.0000	214,322.3857	214,322.3857	7.1544	0.0000	214,501.2463
2032	67.1785	317.0347	361.8866	2.2693	190.7177	1.4447	192.1624	51.1716	1.3839	52.5556	0.0000	232,051.8035	232,051.8035	7.2859	0.0000	232,233.9503
2033	64.4304	314.8296	346.0753	2.2481	190.7176	1.4017	192.1193	51.1716	1.3443	52.5159	0.0000	229,953.9573	229,953.9573	7.1186	0.0000	230,131.9221
2034	62.1028	312.9692	331.2084	2.2299	190.7175	1.3617	192.0792	51.1716	1.3075	52.4790	0.0000	228,162.6297	228,162.6297	6.9646	0.0000	228,336.7435
2035	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2036	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2037	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2038	64.1394	316.4701	350.7085	2.2729	191.0528	1.4787	192.5314	51.2605	1.4272	52.6876	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238
2039	64.1394	316.4701	350.7085	2.2729	191.0528	1.4787	192.5314	51.2605	1.4272	52.6876	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238
2040	56.6303	307.6490	312.7588	2.2267	191.0530	1.1265	192.1795	51.2605	1.0844	52.3449	0.0000	227,613.6757	227,613.6757	6.5811	0.0000	227,778.2032
Maximum	**67.1785**	**603.8556**	**487.8942**	**2.3428**	**277.5903**	**4.5100**	**281.2430**	**51.2834**	**4.2323**	**54.7138**	**0.0000**	**239,450.7782**	**239,450.7782**	**12.4704**	**0.0000**	**239,711.0362**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**14.82**	**0.00**	**14.67**	**9.55**	**0.00**	**9.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/30/2022	5	260	
2	Site Preparation	Site Preparation	5/31/2022	12/12/2022	5	140	
3	Grading	Grading	12/13/2022	7/22/2024	5	420	
4	Building Construction	Building Construction	7/23/2024	12/31/2040	5	4290	
5	Architectural Coating	Architectural Coating	1/13/2032	12/31/2040	5	2340	
6	Paving	Paving	10/5/2038	12/31/2040	5	585	

Acres of Grading (Site Preparation Phase): 2800

Acres of Grading (Grading Phase): 8400

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,868,040; Non-Residential Outdoor: 4,622,680; Striped Parking Area: 1,220,436 (Architectural Coating – sqft)

OffRoad Equipment

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	5	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Site Preparation	Crawler Tractors	7	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	5	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	4	8.00	212	0.43
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Crawler Tractors	5	8.00	212	0.43
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	78	0.48

Trips and VMT

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	247.00	591,868.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	12	30.00	133.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	399.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	12,275.00	4,071.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	2,455.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	6.1010	60.7280	39.8582	0.0725		2.9983	2.9983		2.7861	2.7861		6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**6.1010**	**60.7280**	**39.8582**	**0.0725**	**492.6504**	**2.9983**	**495.6487**	**74.5917**	**2.7861**	**77.3778**		**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.5264	519.2197	80.4182	1.7688	60.5535	1.4689	62.0224	16.0069	1.4053	17.4122		187,847.4489	187,847.4489	10.0695		188,099.1857
Vendor	0.6392	23.8201	4.4822	0.0666	1.5820	0.0408	1.6228	0.4555	0.0391	0.4946		7,029.3559	7,029.3559	0.4442		7,040.4615
Worker	0.1423	0.0879	1.1592	3.0800e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		306.3426	306.3426	8.7200e-003		306.5605
Total	**14.3078**	**543.1276**	**86.0596**	**1.8385**	**62.4485**	**1.5117**	**63.9602**	**16.5454**	**1.4462**	**17.9916**		**195,183.1473**	**195,183.1473**	**10.5224**		**195,446.2077**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					192.1337	0.0000	192.1337	29.0908	0.0000	29.0908			0.0000			0.0000
Off-Road	6.1010	60.7280	39.8582	0.0725		2.9983	2.9983		2.7861	2.7861	0.0000	6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**6.1010**	**60.7280**	**39.8582**	**0.0725**	**192.1337**	**2.9983**	**195.1319**	**29.0908**	**2.7861**	**31.8768**	**0.0000**	**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.5264	519.2197	80.4182	1.7688	60.5535	1.4689	62.0224	16.0069	1.4053	17.4122		187,847.4489	187,847.4489	10.0695		188,099.1857
Vendor	0.6392	23.8201	4.4822	0.0666	1.5820	0.0408	1.6228	0.4555	0.0391	0.4946		7,029.3559	7,029.3559	0.4442		7,040.4615
Worker	0.1423	0.0879	1.1592	3.0800e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		306.3426	306.3426	8.7200e-003		306.5605
Total	**14.3078**	**543.1276**	**86.0596**	**1.8385**	**62.4485**	**1.5117**	**63.9602**	**16.5454**	**1.4462**	**17.9916**		**195,183.1473**	**195,183.1473**	**10.5224**		**195,446.2077**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	5.0759	49.6618	37.9330	0.0725		2.3994	2.3994		2.2315	2.2315		6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**5.0759**	**49.6618**	**37.9330**	**0.0725**	**492.6504**	**2.3994**	**495.0498**	**74.5917**	**2.2315**	**76.8232**		**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	12.7871	476.2229	77.9664	1.7483	83.5618	1.2170	84.7787	21.6542	1.1643	22.8185		185,760.2928	185,760.2928	9.8294		186,006.0269
Vendor	0.5954	22.5911	4.1440	0.0661	1.5819	0.0343	1.6162	0.4555	0.0328	0.4883		6,972.9973	6,972.9973	0.4289		6,983.7185
Worker	0.1329	0.0791	1.0649	2.9600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		295.2887	295.2887	7.8200e-003		295.4842
Total	**13.5154**	**498.8931**	**83.1753**	**1.8173**	**85.4567**	**1.2532**	**86.7099**	**22.1927**	**1.1989**	**23.3916**		**193,028.5788**	**193,028.5788**	**10.2660**		**193,285.2296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					192.1337	0.0000	192.1337	29.0908	0.0000	29.0908			0.0000			0.0000
Off-Road	5.0759	49.6618	37.9330	0.0725		2.3994	2.3994		2.2315	2.2315	0.0000	6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**5.0759**	**49.6618**	**37.9330**	**0.0725**	**192.1337**	**2.3994**	**194.5331**	**29.0908**	**2.2315**	**31.3222**	**0.0000**	**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	12.7871	476.2229	77.9664	1.7483	83.5618	1.2170	84.7787	21.6542	1.1643	22.8185		185,760.2928	185,760.2928	9.8294		186,006.0269
Vendor	0.5954	22.5911	4.1440	0.0661	1.5819	0.0343	1.6162	0.4555	0.0328	0.4883		6,972.9973	6,972.9973	0.4289		6,983.7185
Worker	0.1329	0.0791	1.0649	2.9600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		295.2887	295.2887	7.8200e-003		295.4842
Total	**13.5154**	**498.8931**	**83.1753**	**1.8173**	**85.4567**	**1.2532**	**86.7099**	**22.1927**	**1.1989**	**23.3916**		**193,028.5788**	**193,028.5788**	**10.2660**		**193,285.2296**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					51.3204	0.0000	51.3204	18.8413	0.0000	18.8413			0.0000			0.0000
Off-Road	7.6289	86.0232	34.1137	0.0975		3.6738	3.6738		3.3799	3.3799		9,448.4033	9,448.4033	3.0558		9,524.7984
Total	**7.6289**	**86.0232**	**34.1137**	**0.0975**	**51.3204**	**3.6738**	**54.9943**	**18.8413**	**3.3799**	**22.2212**		**9,448.4033**	**9,448.4033**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3206	12.1644	2.2314	0.0356	0.8518	0.0185	0.8703	0.2453	0.0177	0.2629		3,754.6908	3,754.6908	0.2309		3,760.4638
Worker	0.1424	0.0847	1.1409	3.1800e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		316.3807	316.3807	8.3800e-003		316.5902
Total	**0.4630**	**12.2492**	**3.3723**	**0.0388**	**1.1871**	**0.0206**	**1.2077**	**0.3342**	**0.0196**	**0.3538**		**4,071.0716**	**4,071.0716**	**0.2393**		**4,077.0540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.0150	0.0000	20.0150	7.3481	0.0000	7.3481			0.0000			0.0000
Off-Road	7.6289	86.0232	34.1137	0.0975		3.6738	3.6738		3.3799	3.3799	0.0000	9,448.4032	9,448.4032	3.0558		9,524.7984
Total	**7.6289**	**86.0232**	**34.1137**	**0.0975**	**20.0150**	**3.6738**	**23.6888**	**7.3481**	**3.3799**	**10.7280**	**0.0000**	**9,448.4032**	**9,448.4032**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3206	12.1644	2.2314	0.0356	0.8518	0.0185	0.8703	0.2453	0.0177	0.2629		3,754.6908	3,754.6908	0.2309		3,760.4638
Worker	0.1424	0.0847	1.1409	3.1800e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		316.3807	316.3807	8.3800e-003		316.5902
Total	**0.4630**	**12.2492**	**3.3723**	**0.0388**	**1.1871**	**0.0206**	**1.2077**	**0.3342**	**0.0196**	**0.3538**		**4,071.0716**	**4,071.0716**	**0.2393**		**4,077.0540**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	8.5585	95.0158	58.3905	0.1431		3.8162	3.8162		3.5109	3.5109		13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**8.5585**	**95.0158**	**58.3905**	**0.1431**	**33.2542**	**3.8162**	**37.0703**	**8.9106**	**3.5109**	**12.4215**		**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9619	36.4933	6.6942	0.1067	2.5554	0.0554	2.6109	0.7358	0.0530	0.7888		11,264.0725	11,264.0725	0.6928		11,281.3914
Worker	0.1898	0.1130	1.5212	4.2400e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		421.8410	421.8410	0.0112		422.1203
Total	**1.1517**	**36.6063**	**8.2154**	**0.1110**	**3.0026**	**0.0582**	**3.0607**	**0.8544**	**0.0556**	**0.9099**		**11,685.9135**	**11,685.9135**	**0.7039**		**11,703.5116**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9691	0.0000	12.9691	3.4752	0.0000	3.4752			0.0000			0.0000
Off-Road	8.5585	95.0158	58.3905	0.1431		3.8162	3.8162		3.5109	3.5109	0.0000	13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**8.5585**	**95.0158**	**58.3905**	**0.1431**	**12.9691**	**3.8162**	**16.7853**	**3.4752**	**3.5109**	**6.9860**	**0.0000**	**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9619	36.4933	6.6942	0.1067	2.5554	0.0554	2.6109	0.7358	0.0530	0.7888		11,264.0725	11,264.0725	0.6928		11,281.3914
Worker	0.1898	0.1130	1.5212	4.2400e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		421.8410	421.8410	0.0112		422.1203
Total	**1.1517**	**36.6063**	**8.2154**	**0.1110**	**3.0026**	**0.0582**	**3.0607**	**0.8544**	**0.0556**	**0.9099**		**11,685.9135**	**11,685.9135**	**0.7039**		**11,703.5116**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.8147	83.3868	56.1517	0.1430		3.3407	3.3407		3.0734	3.0734		13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**7.8147**	**83.3868**	**56.1517**	**0.1430**	**33.2542**	**3.3407**	**36.5949**	**8.9106**	**3.0734**	**11.9841**		**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7265	28.2571	5.8334	0.1037	2.5554	0.0273	2.5827	0.7358	0.0261	0.7619		10,951.3324	10,951.3324	0.5580		10,965.2814
Worker	0.1776	0.1017	1.3968	4.0700e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		405.9801	405.9801	0.0100		406.2301
Total	**0.9040**	**28.3588**	**7.2303**	**0.1078**	**3.0025**	**0.0300**	**3.0325**	**0.8544**	**0.0286**	**0.8829**		**11,357.3124**	**11,357.3124**	**0.5680**		**11,371.5115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9691	0.0000	12.9691	3.4752	0.0000	3.4752			0.0000			0.0000
Off-Road	7.8147	83.3868	56.1517	0.1430		3.3407	3.3407		3.0734	3.0734	0.0000	13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**7.8147**	**83.3868**	**56.1517**	**0.1430**	**12.9691**	**3.3407**	**16.3098**	**3.4752**	**3.0734**	**6.5486**	**0.0000**	**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7265	28.2571	5.8334	0.1037	2.5554	0.0273	2.5827	0.7358	0.0261	0.7619		10,951.3324	10,951.3324	0.5580		10,965.2814
Worker	0.1776	0.1017	1.3968	4.0700e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		405.9801	405.9801	0.0100		406.2301
Total	**0.9040**	**28.3588**	**7.2303**	**0.1078**	**3.0025**	**0.0300**	**3.0325**	**0.8544**	**0.0286**	**0.8829**		**11,357.3124**	**11,357.3124**	**0.5680**		**11,371.5115**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.5569	77.9533	55.3134	0.1430		3.1422	3.1422		2.8908	2.8908		13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**7.5569**	**77.9533**	**55.3134**	**0.1430**	**33.2542**	**3.1422**	**36.3964**	**8.9106**	**2.8908**	**11.8014**		**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7161	28.3885	5.6109	0.1036	2.5554	0.0272	2.5826	0.7358	0.0260	0.7618		10,937.3471	10,937.3471	0.5575		10,951.2845
Worker	0.1671	0.0922	1.3026	3.9400e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		392.8143	392.8143	9.1300e-003		393.0426
Total	**0.8832**	**28.4806**	**6.9135**	**0.1075**	**3.0025**	**0.0299**	**3.0323**	**0.8543**	**0.0285**	**0.8828**		**11,330.1614**	**11,330.1614**	**0.5666**		**11,344.3271**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9691	0.0000	12.9691	3.4752	0.0000	3.4752			0.0000			0.0000
Off-Road	7.5569	77.9533	55.3134	0.1430		3.1422	3.1422		2.8908	2.8908	0.0000	13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**7.5569**	**77.9533**	**55.3134**	**0.1430**	**12.9691**	**3.1422**	**16.1113**	**3.4752**	**2.8908**	**6.3660**	**0.0000**	**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7161	28.3885	5.6109	0.1036	2.5554	0.0272	2.5826	0.7358	0.0260	0.7618		10,937.3471	10,937.3471	0.5575		10,951.2845
Worker	0.1671	0.0922	1.3026	3.9400e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		392.8143	392.8143	9.1300e-003		393.0426
Total	**0.8832**	**28.4806**	**6.9135**	**0.1075**	**3.0025**	**0.0299**	**3.0323**	**0.8543**	**0.0285**	**0.8828**		**11,330.1614**	**11,330.1614**	**0.5666**		**11,344.3271**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2966	43.0173	30.9138	0.0766		1.7847	1.7847		1.6672	1.6672		7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**4.2966**	**43.0173**	**30.9138**	**0.0766**		**1.7847**	**1.7847**		**1.6672**	**1.6672**		**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3065	289.6477	57.2482	1.0565	26.0724	0.2775	26.3499	7.5071	0.2652	7.7723		111,593.8342	111,593.8342	5.6882		111,736.0380
Worker	51.2682	28.2857	399.7322	1.2096	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		120,544.8960	120,544.8960	2.8017		120,614.9394
Total	**58.5747**	**317.9334**	**456.9804**	**2.2662**	**163.2780**	**1.0987**	**164.3767**	**43.8946**	**1.0211**	**44.9157**		**232,138.7302**	**232,138.7302**	**8.4899**		**232,350.9773**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2966	43.0173	30.9138	0.0766		1.7847	1.7847		1.6672	1.6672	0.0000	7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**4.2966**	**43.0173**	**30.9138**	**0.0766**		**1.7847**	**1.7847**		**1.6672**	**1.6672**	**0.0000**	**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3065	289.6477	57.2482	1.0565	26.0724	0.2775	26.3499	7.5071	0.2652	7.7723		111,593.8342	111,593.8342	5.6882		111,736.0380
Worker	51.2682	28.2857	399.7322	1.2096	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		120,544.8960	120,544.8960	2.8017		120,614.9394
Total	**58.5747**	**317.9334**	**456.9804**	**2.2662**	**163.2780**	**1.0987**	**164.3767**	**43.8946**	**1.0211**	**44.9157**		**232,138.7302**	**232,138.7302**	**8.4899**		**232,350.9773**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1137	287.7720	54.9374	1.0500	26.0721	0.2740	26.3461	7.5070	0.2619	7.7688		110,940.1906	110,940.1906	5.6589		111,081.6620
Worker	48.3606	25.7094	369.6652	1.1613	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		115,751.7121	115,751.7121	2.5328		115,815.0308
Total	**55.4744**	**313.4814**	**424.6027**	**2.2113**	**163.2777**	**1.0783**	**164.3560**	**43.8945**	**1.0021**	**44.8966**		**226,691.9027**	**226,691.9027**	**8.1916**		**226,896.6928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1137	287.7720	54.9374	1.0500	26.0721	0.2740	26.3461	7.5070	0.2619	7.7688		110,940.1906	110,940.1906	5.6589		111,081.6620
Worker	48.3606	25.7094	369.6652	1.1613	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		115,751.7121	115,751.7121	2.5328		115,815.0308
Total	**55.4744**	**313.4814**	**424.6027**	**2.2113**	**163.2777**	**1.0783**	**164.3560**	**43.8945**	**1.0021**	**44.8966**		**226,691.9027**	**226,691.9027**	**8.1916**		**226,896.6928**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9508	285.8106	53.1716	1.0439	26.0718	0.2703	26.3422	7.5069	0.2584	7.7653		110,316.1344	110,316.1344	5.6158		110,456.5283
Worker	45.8054	23.5195	343.8098	1.1189	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		111,551.6157	111,551.6157	2.3019		111,609.1631
Total	**52.7562**	**309.3301**	**396.9814**	**2.1628**	**163.2774**	**1.0488**	**164.3262**	**43.8944**	**0.9747**	**44.8691**		**221,867.7501**	**221,867.7501**	**7.9177**		**222,065.6914**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9508	285.8106	53.1716	1.0439	26.0718	0.2703	26.3422	7.5069	0.2584	7.7653		110,316.1344	110,316.1344	5.6158		110,456.5283
Worker	45.8054	23.5195	343.8098	1.1189	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		111,551.6157	111,551.6157	2.3019		111,609.1631
Total	**52.7562**	**309.3301**	**396.9814**	**2.1628**	**163.2774**	**1.0488**	**164.3262**	**43.8944**	**0.9747**	**44.8691**		**221,867.7501**	**221,867.7501**	**7.9177**		**222,065.6914**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8139	283.9811	51.7011	1.0387	26.0716	0.2664	26.3381	7.5068	0.2547	7.7614		109,791.2362	109,791.2362	5.5668		109,930.4057
Worker	43.3362	21.5569	320.8339	1.0816	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		107,849.3125	107,849.3125	2.0964		107,901.7234
Total	**50.1501**	**305.5380**	**372.5350**	**2.1202**	**163.2772**	**1.0035**	**164.2807**	**43.8944**	**0.9328**	**44.8272**		**217,640.5487**	**217,640.5487**	**7.6632**		**217,832.1291**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8139	283.9811	51.7011	1.0387	26.0716	0.2664	26.3381	7.5068	0.2547	7.7614		109,791.2362	109,791.2362	5.5668		109,930.4057
Worker	43.3362	21.5569	320.8339	1.0816	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		107,849.3125	107,849.3125	2.0964		107,901.7234
Total	**50.1501**	**305.5380**	**372.5350**	**2.1202**	**163.2772**	**1.0035**	**164.2807**	**43.8944**	**0.9328**	**44.8272**		**217,640.5487**	**217,640.5487**	**7.6632**		**217,832.1291**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7007	282.5268	50.5564	1.0342	26.0715	0.2639	26.3354	7.5067	0.2523	7.7590		109,343.2759	109,343.2759	5.5099		109,481.0244
Worker	40.8161	19.7989	300.7286	1.0488	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		104,601.9372	104,601.9372	1.9199		104,649.9335
Total	**47.5167**	**302.3257**	**351.2850**	**2.0830**	**163.2771**	**0.9478**	**164.2249**	**43.8943**	**0.8814**	**44.7757**		**213,945.2131**	**213,945.2131**	**7.4298**		**214,130.9579**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7007	282.5268	50.5564	1.0342	26.0715	0.2639	26.3354	7.5067	0.2523	7.7590		109,343.2759	109,343.2759	5.5099		109,481.0244
Worker	40.8161	19.7989	300.7286	1.0488	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		104,601.9372	104,601.9372	1.9199		104,649.9335
Total	**47.5167**	**302.3257**	**351.2850**	**2.0830**	**163.2771**	**0.9478**	**164.2249**	**43.8943**	**0.8814**	**44.7757**		**213,945.2131**	**213,945.2131**	**7.4298**		**214,130.9579**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6017	281.1723	49.5151	1.0305	26.0714	0.2612	26.3325	7.5067	0.2496	7.7563		108,967.4625	108,967.4625	5.4578		109,103.9080
Worker	38.0723	18.1325	281.3046	1.0200	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		101,744.4611	101,744.4611	1.7492		101,788.1900
Total	**44.6741**	**299.3048**	**330.8197**	**2.0505**	**163.2769**	**0.8958**	**164.1727**	**43.8943**	**0.8334**	**44.7277**		**210,711.9236**	**210,711.9236**	**7.2070**		**210,892.0980**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6017	281.1723	49.5151	1.0305	26.0714	0.2612	26.3325	7.5067	0.2496	7.7563		108,967.4625	108,967.4625	5.4578		109,103.9080
Worker	38.0723	18.1325	281.3046	1.0200	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		101,744.4611	101,744.4611	1.7492		101,788.1900
Total	**44.6741**	**299.3048**	**330.8197**	**2.0505**	**163.2769**	**0.8958**	**164.1727**	**43.8943**	**0.8334**	**44.7277**		**210,711.9236**	**210,711.9236**	**7.2070**		**210,892.0980**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5224	279.8758	48.7711	1.0273	26.0713	0.2584	26.3297	7.5066	0.2470	7.7536		108,647.7816	108,647.7816	5.4031		108,782.8596
Worker	35.3831	16.5985	263.8402	0.9946	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		99,230.4353	99,230.4353	1.5968		99,270.3556
Total	**41.9055**	**296.4743**	**312.6113**	**2.0219**	**163.2768**	**0.8482**	**164.1250**	**43.8942**	**0.7895**	**44.6837**		**207,878.2169**	**207,878.2169**	**6.9999**		**208,053.2151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5224	279.8758	48.7711	1.0273	26.0713	0.2584	26.3297	7.5066	0.2470	7.7536		108,647.7816	108,647.7816	5.4031		108,782.8596
Worker	35.3831	16.5985	263.8402	0.9946	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		99,230.4353	99,230.4353	1.5968		99,270.3556
Total	**41.9055**	**296.4743**	**312.6113**	**2.0219**	**163.2768**	**0.8482**	**164.1250**	**43.8942**	**0.7895**	**44.6837**		**207,878.2169**	**207,878.2169**	**6.9999**		**208,053.2151**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5232	280.0978	48.5940	1.0276	26.0711	0.2571	26.3282	7.5066	0.2458	7.7523		108,685.8108	108,685.8108	5.3590		108,819.7864
Worker	32.4594	15.1003	248.3612	0.9738	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		97,172.0850	97,172.0850	1.4597		97,208.5779
Total	**38.9826**	**295.1981**	**296.9552**	**2.0014**	**163.2767**	**0.8091**	**164.0858**	**43.8942**	**0.7535**	**44.6476**		**205,857.8958**	**205,857.8958**	**6.8187**		**206,028.3643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5232	280.0978	48.5940	1.0276	26.0711	0.2571	26.3282	7.5066	0.2458	7.7523		108,685.8108	108,685.8108	5.3590		108,819.7864
Worker	32.4594	15.1003	248.3612	0.9738	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		97,172.0850	97,172.0850	1.4597		97,208.5779
Total	**38.9826**	**295.1981**	**296.9552**	**2.0014**	**163.2767**	**0.8091**	**164.0858**	**43.8942**	**0.7535**	**44.6476**		**205,857.8958**	**205,857.8958**	**6.8187**		**206,028.3643**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4798	279.1045	48.2262	1.0262	26.0710	0.2552	26.3262	7.5065	0.2439	7.7505		108,552.0598	108,552.0598	5.3218		108,685.1046
Worker	29.8515	13.8056	233.3465	0.9542	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		95,237.2714	95,237.2714	1.3317		95,270.5634
Total	**36.3313**	**292.9101**	**281.5727**	**1.9804**	**163.2766**	**0.7691**	**164.0457**	**43.8941**	**0.7166**	**44.6107**		**203,789.3312**	**203,789.3312**	**6.6535**		**203,955.6680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4798	279.1045	48.2262	1.0262	26.0710	0.2552	26.3262	7.5065	0.2439	7.7505		108,552.0598	108,552.0598	5.3218		108,685.1046
Worker	29.8515	13.8056	233.3465	0.9542	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		95,237.2714	95,237.2714	1.3317		95,270.5634
Total	**36.3313**	**292.9101**	**281.5727**	**1.9804**	**163.2766**	**0.7691**	**164.0457**	**43.8941**	**0.7166**	**44.6107**		**203,789.3312**	**203,789.3312**	**6.6535**		**203,955.6680**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4514	278.2257	47.9579	1.0254	26.0709	0.2534	26.3243	7.5065	0.2422	7.7487		108,471.8442	108,471.8442	5.2863		108,604.0013
Worker	27.5851	12.7003	220.3939	0.9372	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		93,555.9126	93,555.9126	1.2219		93,586.4593
Total	**34.0365**	**290.9260**	**268.3519**	**1.9626**	**163.2765**	**0.7330**	**164.0095**	**43.8941**	**0.6833**	**44.5774**		**202,027.7568**	**202,027.7568**	**6.5082**		**202,190.4606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4514	278.2257	47.9579	1.0254	26.0709	0.2534	26.3243	7.5065	0.2422	7.7487		108,471.8442	108,471.8442	5.2863		108,604.0013
Worker	27.5851	12.7003	220.3939	0.9372	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		93,555.9126	93,555.9126	1.2219		93,586.4593
Total	**34.0365**	**290.9260**	**268.3519**	**1.9626**	**163.2765**	**0.7330**	**164.0095**	**43.8941**	**0.6833**	**44.5774**		**202,027.7568**	**202,027.7568**	**6.5082**		**202,190.4606**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4272	277.4611	47.7198	1.0249	26.0708	0.2516	26.3224	7.5065	0.2405	7.7470		108,433.0321	108,433.0321	5.2548		108,564.4020
Worker	25.6657	11.7872	208.2033	0.9225	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		92,095.4830	92,095.4830	1.1198		92,123.4766
Total	**32.0929**	**289.2483**	**255.9231**	**1.9474**	**163.2764**	**0.6993**	**163.9757**	**43.8941**	**0.6523**	**44.5463**		**200,528.5151**	**200,528.5151**	**6.3745**		**200,687.8786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4272	277.4611	47.7198	1.0249	26.0708	0.2516	26.3224	7.5065	0.2405	7.7470		108,433.0321	108,433.0321	5.2548		108,564.4020
Worker	25.6657	11.7872	208.2033	0.9225	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		92,095.4830	92,095.4830	1.1198		92,123.4766
Total	**32.0929**	**289.2483**	**255.9231**	**1.9474**	**163.2764**	**0.6993**	**163.9757**	**43.8941**	**0.6523**	**44.5463**		**200,528.5151**	**200,528.5151**	**6.3745**		**200,687.8786**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2170	12.4263	28.4594	0.0901		0.2378	0.2378		0.2378	0.2378		8,464.4907	8,464.4907	0.2854		8,471.6250
Total	**3.2170**	**12.4263**	**28.4594**	**0.0901**		**0.2378**	**0.2378**		**0.2378**	**0.2378**		**8,464.4907**	**8,464.4907**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3658	275.2005	46.7527	1.0252	26.0710	0.2467	26.3177	7.5065	0.2358	7.7423		108,462.5856	108,462.5856	5.1502		108,591.3417
Worker	18.2104	8.9570	167.2693	0.8710	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		87,008.6578	87,008.6578	0.7822		87,028.2117
Total	**24.5762**	**284.1575**	**214.0220**	**1.8962**	**163.2765**	**0.5705**	**163.8470**	**43.8941**	**0.5336**	**44.4277**		**195,471.2434**	**195,471.2434**	**5.9324**		**195,619.5534**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2170	12.4263	28.4594	0.0901		0.2378	0.2378		0.2378	0.2378	0.0000	8,464.4906	8,464.4906	0.2854		8,471.6250
Total	**3.2170**	**12.4263**	**28.4594**	**0.0901**		**0.2378**	**0.2378**		**0.2378**	**0.2378**	**0.0000**	**8,464.4906**	**8,464.4906**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3658	275.2005	46.7527	1.0252	26.0710	0.2467	26.3177	7.5065	0.2358	7.7423		108,462.5856	108,462.5856	5.1502		108,591.3417
Worker	18.2104	8.9570	167.2693	0.8710	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		87,008.6578	87,008.6578	0.7822		87,028.2117
Total	**24.5762**	**284.1575**	**214.0220**	**1.8962**	**163.2765**	**0.5705**	**163.8470**	**43.8941**	**0.5336**	**44.4277**		**195,471.2434**	**195,471.2434**	**5.9324**		**195,619.5534**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9703	2.7611	46.6693	0.1909	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		19,047.4543	19,047.4543	0.2663		19,054.1127
Total	**5.9703**	**2.7611**	**46.6693**	**0.1909**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**19,047.4543**	**19,047.4543**	**0.2663**		**19,054.1127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9703	2.7611	46.6693	0.1909	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		19,047.4543	19,047.4543	0.2663		19,054.1127
Total	**5.9703**	**2.7611**	**46.6693**	**0.1909**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**19,047.4543**	**19,047.4543**	**0.2663**		**19,054.1127**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.5170	2.5401	44.0788	0.1875	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		18,711.1825	18,711.1825	0.2444		18,717.2919
Total	**5.5170**	**2.5401**	**44.0788**	**0.1875**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**18,711.1825**	**18,711.1825**	**0.2444**		**18,717.2919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.5170	2.5401	44.0788	0.1875	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		18,711.1825	18,711.1825	0.2444		18,717.2919
Total	**5.5170**	**2.5401**	**44.0788**	**0.1875**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**18,711.1825**	**18,711.1825**	**0.2444**		**18,717.2919**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.1331	2.3574	41.6407	0.1845	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		18,419.0966	18,419.0966	0.2240		18,424.6953
Total	**5.1331**	**2.3574**	**41.6407**	**0.1845**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**18,419.0966**	**18,419.0966**	**0.2240**		**18,424.6953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.1331	2.3574	41.6407	0.1845	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		18,419.0966	18,419.0966	0.2240		18,424.6953
Total	**5.1331**	**2.3574**	**41.6407**	**0.1845**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**18,419.0966**	**18,419.0966**	**0.2240**		**18,424.6953**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3064	1.9387	4.7795	7.9200e-003		0.0198	0.0198		0.0198	0.0198		750.5281	750.5281	0.0264		751.1885
Total	**21.0367**	**1.9387**	**4.7795**	**7.9200e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**		**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.6421	1.7914	33.4539	0.1742	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		17,401.7316	17,401.7316	0.1564		17,405.6423
Total	**3.6421**	**1.7914**	**33.4539**	**0.1742**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**17,401.7316**	**17,401.7316**	**0.1564**		**17,405.6423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3064	1.9387	4.7795	7.9200e-003		0.0198	0.0198		0.0198	0.0198	0.0000	750.5281	750.5281	0.0264		751.1885
Total	**21.0367**	**1.9387**	**4.7795**	**7.9200e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**	**0.0000**	**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.6421	1.7914	33.4539	0.1742	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		17,401.7316	17,401.7316	0.1564		17,405.6423
Total	**3.6421**	**1.7914**	**33.4539**	**0.1742**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**17,401.7316**	**17,401.7316**	**0.1564**		**17,405.6423**

3.7 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

3.7 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0224	7.3132	31.6354	0.0561		0.2329	0.2329		0.2329	0.2329		5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1138**	**7.3132**	**31.6354**	**0.0561**		**0.2329**	**0.2329**		**0.2329**	**0.2329**		**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0219	0.4088	2.1300e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		212.6485	212.6485	1.9100e-003		212.6962
Total	**0.0445**	**0.0219**	**0.4088**	**2.1300e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**212.6485**	**212.6485**	**1.9100e-003**		**212.6962**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0224	7.3132	31.6354	0.0561		0.2329	0.2329		0.2329	0.2329	0.0000	5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1138**	**7.3132**	**31.6354**	**0.0561**		**0.2329**	**0.2329**		**0.2329**	**0.2329**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0219	0.4088	2.1300e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		212.6485	212.6485	1.9100e-003		212.6962
Total	**0.0445**	**0.0219**	**0.4088**	**2.1300e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**212.6485**	**212.6485**	**1.9100e-003**		**212.6962**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Unrefrigerated Warehouse-No Rail	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Unmitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Construction - Unmitigated)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Unrefrigerated Warehouse-No Rail	7,662.72	1000sqft	175.91	7,662,716.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Unrefrigerated Warehouse - No Rail represents the sum of the proposed Warehousing and High-Cube Transload & Short-Term Warehouse uses.

Construction Phase - Construction Schedule adjusted to meet the 2040 Operational Year.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Trips and VMT - CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips were ratioed between each phase based on the number of days.

Demolition - Quantity of debis based on total existing use.

Grading - Analysis assumes that up to 20 acres will be disturbed per day.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	700.00	260.00
tblConstructionPhase	NumDays	420.00	140.00
tblConstructionPhase	NumDays	1,085.00	420.00
tblConstructionPhase	NumDays	10,850.00	4,290.00
tblConstructionPhase	NumDays	770.00	2,340.00

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

tblConstructionPhase	NumDays	770.00	585.00
tblEnergyUse	LightingElect	5.44	0.00
tblEnergyUse	LightingElect	5.61	0.00
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	6.47	0.00
tblEnergyUse	T24E	4.58	0.00
tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	55.15	0.00
tblEnergyUse	T24NG	1.92	0.00
tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	2.00	0.00
tblGrading	AcresOfGrading	2,940.00	8,400.00
tblGrading	AcresOfGrading	490.00	2,800.00
tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00
tblLandUse	LandUseSquareFeet	7,662,720.00	7,662,716.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00

tblLandUse	LotAcreage	5.00	1.72
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	82.13	0.00

tblSolidWaste	SolidWasteGenerationRate	215.75	0.00
tblSolidWaste	SolidWasteGenerationRate	98.96	0.00
tblSolidWaste	SolidWasteGenerationRate	7,202.96	0.00
tblTripsAndVMT	VendorTripNumber	0.00	247.00
tblTripsAndVMT	VendorTripNumber	0.00	133.00
tblTripsAndVMT	VendorTripNumber	0.00	399.00
tblTripsAndVMT	VendorTripNumber	4,849.00	4,071.00
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	1.9890e-007
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5245e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0233e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	3.2808e-007
tblVehicleEF	HHD	1.9450e-003	1.9358e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003

tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	3.0165e-007
tblVehicleEF	HHD	6.1000e-005	1.0921e-006
tblVehicleEF	HHD	2.0330e-003	3.6301e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	7.2040e-007
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7521e-004
tblVehicleEF	HHD	0.03	1.0346e-006
tblVehicleEF	HHD	0.06	7.9577e-003
tblVehicleEF	HHD	0.01	9.4332e-003
tblVehicleEF	HHD	7.6000e-005	2.6504e-007
tblVehicleEF	HHD	6.1000e-005	1.0921e-006
tblVehicleEF	HHD	2.0330e-003	3.6301e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	7.2040e-007
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7521e-004
tblVehicleEF	HHD	0.03	1.1328e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	1.8975e-007
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3275e-003
tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28

tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7922e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	3.2808e-007
tblVehicleEF	HHD	1.6390e-003	1.7147e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	3.0165e-007
tblVehicleEF	HHD	1.1700e-004	1.9540e-006
tblVehicleEF	HHD	2.2520e-003	3.9560e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.3194e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7436e-004
tblVehicleEF	HHD	0.03	9.9001e-007
tblVehicleEF	HHD	0.06	7.8558e-003
tblVehicleEF	HHD	0.01	9.4332e-003
tblVehicleEF	HHD	7.4000e-005	2.6195e-007
tblVehicleEF	HHD	1.1700e-004	1.9540e-006
tblVehicleEF	HHD	2.2520e-003	3.9560e-005
tblVehicleEF	HHD	0.61	0.54

tblVehicleEF	HHD	8.0000e-005	1.3194e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7436e-004
tblVehicleEF	HHD	0.03	1.0839e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7438e-004
tblVehicleEF	HHD	0.05	1.9777e-007
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4969e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2384e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	3.2808e-007
tblVehicleEF	HHD	2.3660e-003	2.1415e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6472e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	3.0165e-007
tblVehicleEF	HHD	5.7000e-005	9.8962e-007

tblVehicleEF	HHD	2.1410e-003	3.8374e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	7.1449e-007
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9146e-004
tblVehicleEF	HHD	0.03	1.0289e-006
tblVehicleEF	HHD	0.05	8.0984e-003
tblVehicleEF	HHD	0.01	9.4332e-003
tblVehicleEF	HHD	7.6000e-005	2.6461e-007
tblVehicleEF	HHD	5.7000e-005	9.8962e-007
tblVehicleEF	HHD	2.1410e-003	3.8374e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	7.1449e-007
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9146e-004
tblVehicleEF	HHD	0.03	1.1265e-006
tblVehicleEF	LDA	1.3130e-003	7.0046e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.5200e-004	6.0686e-004

tblVehicleEF	LDA	1.0130e-003	7.6644e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.0000e-004	5.5836e-004
tblVehicleEF	LDA	9.3200e-004	7.0471e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0202e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8645e-003
tblVehicleEF	LDA	3.6200e-004	3.6458e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9532e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9513e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10

tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.5200e-004	6.0686e-004
tblVehicleEF	LDA	1.0130e-003	7.6644e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.0000e-004	5.5836e-004
tblVehicleEF	LDA	9.3200e-004	7.0471e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2616e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0187e-003
tblVehicleEF	LDA	3.6100e-004	3.6121e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3086e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8572e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05

tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.5200e-004	6.0686e-004
tblVehicleEF	LDA	1.0130e-003	7.6644e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.0000e-004	5.5836e-004
tblVehicleEF	LDA	9.3200e-004	7.0471e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9787e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8357e-003
tblVehicleEF	LDA	3.6200e-004	3.6456e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8922e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8559e-004
tblVehicleEF	LDT1	1.4900e-003	0.02

tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2238e-003
tblVehicleEF	LDT1	4.7600e-004	4.4514e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0098e-003
tblVehicleEF	LDT1	0.04	0.22

tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0511e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3808e-003
tblVehicleEF	LDT1	4.7400e-004	4.4141e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4914e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
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tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6679e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1945e-003

tblVehicleEF	LDT1	4.7500e-004	4.4513e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9273e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0698e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4642e-003

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tblVehicleEF	LDT2	0.02	0.10
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tblVehicleEF	LDT2	5.3500e-004	4.4318e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0433e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
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tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8614e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3508e-003
tblVehicleEF	LDT2	5.3400e-004	4.3843e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0478e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003

tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3961e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1829e-003
tblVehicleEF	LDT2	5.3500e-004	4.4322e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4148e-003
tblVehicleEF	LHD1	1.8710e-003	1.6435e-003
tblVehicleEF	LHD1	5.1310e-003	5.8039e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12

tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	1.3480e-003	1.2626e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4200e-004	8.4166e-005
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tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4233e-003
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tblVehicleEF	LHD1	4.8800e-003	5.5808e-003
tblVehicleEF	LHD1	0.13	0.17
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tblVehicleEF	LHD1	538.77	527.34
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tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
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tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
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tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
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tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003

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tblVehicleEF	LHD1	0.09	0.16
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tblVehicleEF	LHD1	22.40	8.50
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tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
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tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
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tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
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tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
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tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
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tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
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tblVehicleEF	LHD2	2.0670e-003	3.2881e-003
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tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
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tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01

tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
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tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.03	0.04
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tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
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tblVehicleEF	LHD2	2.0490e-003	3.1616e-003
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tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
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tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
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tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
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tblVehicleEF	LHD2	0.03	0.09
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tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.03	0.04
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tblVehicleEF	LHD2	2.1660e-003	2.2015e-003
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tblVehicleEF	LHD2	2.0640e-003	3.2752e-003
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tblVehicleEF	LHD2	0.14	0.20

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tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
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tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
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tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
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tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
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tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
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tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
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tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27

tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
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tblVehicleEF	MCY	0.74	0.74
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tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
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tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78

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tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
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tblVehicleEF	MCY	6.1700e-004	5.4526e-004
tblVehicleEF	MCY	3.03	2.78
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tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
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tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
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tblVehicleEF	MCY	4.0000e-003	4.0000e-003
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tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003

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tblVehicleEF	MCY	0.65	0.70
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tblVehicleEF	MDV	0.89	1.86
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tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004

tblVehicleEF	MDV	1.3230e-003	8.3734e-004
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tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9199e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6844e-003
tblVehicleEF	MDV	7.1700e-004	5.3168e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7024e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
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tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13

tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
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tblVehicleEF	MDV	0.12	0.09
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tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
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tblVehicleEF	MDV	7.1400e-004	5.2676e-004
tblVehicleEF	MDV	0.12	0.13
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tblVehicleEF	MDV	0.01	6.3607e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1407e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40

tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
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tblVehicleEF	MDV	8.0000e-003	8.0000e-003
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tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8432e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6582e-003
tblVehicleEF	MDV	7.1600e-004	5.3173e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5895e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00

tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
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tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
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tblVehicleEF	MH	0.01	0.02
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tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.0700e-004	0.00
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tblVehicleEF	MH	0.02	0.00

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tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MH	0.01	7.7892e-003

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tblVehicleEF	MHD	2.6380e-003	6.8302e-003
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tblVehicleEF	MHD	3.0000e-003	3.0000e-003

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tblVehicleEF	MHD	0.03	4.3120e-003
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tblVehicleEF	MHD	2.6380e-003	6.8302e-003
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tblVehicleEF	MHD	3.9000e-005	7.8434e-005
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tblVehicleEF	SBUS	1.5500e-004	2.9853e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005

tblVehicleEF	SBUS	1.4800e-004	2.8562e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6008e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.4600e-004	3.5137e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2429e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16

tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9215e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	2.1400e-004	3.7518e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	4.1430e-003	1.0591e-003
tblVehicleEF	SBUS	0.03	7.7878e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6646e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.7400e-004	3.8485e-005

tblVehicleEF	SBUS	4.1430e-003	1.0591e-003
tblVehicleEF	SBUS	0.03	7.7878e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7938e-004
tblVehicleEF	UBUS	0.07	0.07

tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.6040e-003	9.6179e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7938e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5771e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	8.8620e-003	3.5259e-003

tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.5790e-003	9.4020e-005
tblVehicleEF	UBUS	8.8620e-003	3.5259e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003

tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.6000e-003	9.6392e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
tblVehicleTrips	PR_TP	82.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	3,805,015.50	0.00
tblWater	IndoorWaterUseRate	15,220,421.71	0.00
tblWater	IndoorWaterUseRate	640,264,190.29	0.00
tblWater	IndoorWaterUseRate	1,772,004,000.00	0.00
tblWater	OutdoorWaterUseRate	422,779.50	0.00
tblWater	OutdoorWaterUseRate	9,328,645.57	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	21.0591	605.5581	137.8950	1.8616	555.0989	4.5313	559.6302	91.1371	4.2527	95.3898	0.0000	196,951.3213	196,951.3213	13.3834	0.0000	197,285.9056
2022	19.2147	549.1147	132.5481	1.8404	578.1071	3.8760	581.7787	96.7844	3.5680	100.2329	0.0000	194,798.4114	194,798.4114	13.1048	0.0000	195,126.0301
2023	8.7640	111.3673	63.9818	0.2464	36.2567	3.3716	39.6283	9.7650	3.1029	12.8679	0.0000	24,743.5338	24,743.5338	5.1042	0.0000	24,871.1397
2024	63.8528	358.5786	422.9241	2.1778	163.2780	3.1729	166.1705	43.8946	2.9201	46.5916	0.0000	222,806.8562	222,806.8562	10.6702	0.0000	223,073.6110
2025	60.4454	348.6495	394.9688	2.1285	163.2777	2.6199	165.8976	43.8945	2.4425	46.3370	0.0000	217,904.3276	217,904.3276	10.3977	0.0000	218,164.2698
2026	57.8160	344.3716	371.6519	2.0848	163.2774	2.5896	165.8670	43.8944	2.4144	46.3088	0.0000	213,560.3331	213,560.3331	10.1487	0.0000	213,814.0501
2027	55.2722	340.4516	351.0278	2.0465	163.2772	2.5437	165.8209	43.8944	2.3718	46.2661	0.0000	209,745.8871	209,745.8871	9.9145	0.0000	209,993.7485
2028	52.6529	337.1446	333.1032	2.0129	163.2771	2.4875	165.7646	43.8943	2.3199	46.2142	0.0000	206,412.3928	206,412.3928	9.6954	0.0000	206,654.7789
2029	49.8036	334.0257	315.8266	1.9835	163.2769	2.4349	165.7119	43.8943	2.2715	46.1657	0.0000	203,490.7652	203,490.7652	9.4870	0.0000	203,727.9403
2030	46.9141	312.4872	299.0297	1.9712	163.2768	1.3722	164.6490	43.8942	1.3133	45.2075	0.0000	202,080.3692	202,080.3692	7.7139	0.0000	202,273.2155
2031	43.9431	311.1632	285.7397	1.9527	163.2767	1.3327	164.6094	43.8942	1.2769	45.1710	0.0000	200,265.1609	200,265.1609	7.5417	0.0000	200,453.7041
2032	68.4509	313.9436	315.1772	2.1127	190.7177	1.4494	192.1671	51.1716	1.3885	52.5601	0.0000	216,218.6162	216,218.6162	7.6498	0.0000	216,409.8599
2033	65.6740	311.6384	301.9340	2.0935	190.7176	1.4062	192.1238	51.1716	1.3486	52.5202	0.0000	214,313.5225	214,313.5225	7.4923	0.0000	214,500.8307
2034	63.3636	309.6925	289.5218	2.0770	190.7175	1.3659	192.0834	51.1716	1.3115	52.4831	0.0000	212,685.5341	212,685.5341	7.3478	0.0000	212,869.2287
2035	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2036	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2037	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2038	65.4200	313.1300	310.9929	2.1211	191.0528	1.4827	192.5355	51.2605	1.4310	52.6915	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	65.4200	313.1300	310.9929	2.1211	191.0528	1.4827	192.5355	51.2605	1.4310	52.6915	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951
2040	57.9527	304.1372	279.3144	2.0794	191.0530	1.1300	192.1829	51.2605	1.0877	52.3482	0.0000	212,686.0012	212,686.0012	6.9974	0.0000	212,860.9367
Maximum	**68.4509**	**605.5581**	**422.9241**	**2.1778**	**578.1071**	**4.5313**	**581.7787**	**96.7844**	**4.2527**	**100.2329**	**0.0000**	**222,806.8562**	**222,806.8562**	**13.3834**	**0.0000**	**223,073.6110**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	21.0591	605.5581	137.8950	1.8616	254.5821	4.5313	259.1135	45.6362	4.2527	49.8889	0.0000	196,951.3213	196,951.3213	13.3834	0.0000	197,285.9056
2022	19.2147	549.1147	132.5481	1.8404	277.5903	3.8760	281.2619	51.2834	3.5680	54.7320	0.0000	194,798.4114	194,798.4114	13.1048	0.0000	195,126.0301
2023	8.7640	111.3673	63.9818	0.2464	15.9716	3.3716	19.3433	4.3295	3.1029	7.4324	0.0000	24,743.5338	24,743.5338	5.1042	0.0000	24,871.1397
2024	63.8528	358.5786	422.9241	2.1778	163.2780	3.1729	166.1705	43.8946	2.9201	46.5916	0.0000	222,806.8562	222,806.8562	10.6702	0.0000	223,073.6109
2025	60.4454	348.6495	394.9688	2.1285	163.2777	2.6199	165.8976	43.8945	2.4425	46.3370	0.0000	217,904.3276	217,904.3276	10.3977	0.0000	218,164.2698
2026	57.8160	344.3716	371.6519	2.0848	163.2774	2.5896	165.8670	43.8944	2.4144	46.3088	0.0000	213,560.3331	213,560.3331	10.1487	0.0000	213,814.0501
2027	55.2722	340.4516	351.0278	2.0465	163.2772	2.5437	165.8209	43.8944	2.3718	46.2661	0.0000	209,745.8871	209,745.8871	9.9145	0.0000	209,993.7485
2028	52.6529	337.1446	333.1032	2.0129	163.2771	2.4875	165.7646	43.8943	2.3199	46.2142	0.0000	206,412.3928	206,412.3928	9.6954	0.0000	206,654.7789
2029	49.8036	334.0257	315.8266	1.9835	163.2769	2.4349	165.7119	43.8943	2.2715	46.1657	0.0000	203,490.7652	203,490.7652	9.4870	0.0000	203,727.9403

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	46.9141	312.4872	299.0297	1.9712	163.2768	1.3722	164.6490	43.8942	1.3133	45.2075	0.0000	202,080.3692	202,080.3692	7.7139	0.0000	202,273.2155
2031	43.9431	311.1632	285.7397	1.9527	163.2767	1.3327	164.6094	43.8942	1.2769	45.1710	0.0000	200,265.1609	200,265.1609	7.5417	0.0000	200,453.7041
2032	68.4509	313.9436	315.1772	2.1127	190.7177	1.4494	192.1671	51.1716	1.3885	52.5601	0.0000	216,218.6162	216,218.6162	7.6498	0.0000	216,409.8599
2033	65.6740	311.6384	301.9340	2.0935	190.7176	1.4062	192.1238	51.1716	1.3486	52.5202	0.0000	214,313.5225	214,313.5225	7.4923	0.0000	214,500.8307
2034	63.3636	309.6925	289.5218	2.0770	190.7175	1.3659	192.0834	51.1716	1.3115	52.4831	0.0000	212,685.5341	212,685.5341	7.3478	0.0000	212,869.2287
2035	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2036	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2037	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2038	65.4200	313.1300	310.9929	2.1211	191.0528	1.4827	192.5355	51.2605	1.4310	52.6915	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951
2039	65.4200	313.1300	310.9929	2.1211	191.0528	1.4827	192.5355	51.2605	1.4310	52.6915	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951
2040	57.9527	304.1372	279.3144	2.0794	191.0530	1.1300	192.1829	51.2605	1.0877	52.3482	0.0000	212,686.0012	212,686.0012	6.9974	0.0000	212,860.9367
Maximum	**68.4509**	**605.5581**	**422.9241**	**2.1778**	**277.5903**	**4.5313**	**281.2619**	**51.2834**	**4.2527**	**54.7320**	**0.0000**	**222,806.8562**	**222,806.8562**	**13.3834**	**0.0000**	**223,073.6109**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**14.82**	**0.00**	**14.67**	**9.55**	**0.00**	**9.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/30/2022	5	260	
2	Site Preparation	Site Preparation	5/31/2022	12/12/2022	5	140	
3	Grading	Grading	12/13/2022	7/22/2024	5	420	
4	Building Construction	Building Construction	7/23/2024	12/31/2040	5	4290	
5	Architectural Coating	Architectural Coating	1/13/2032	12/31/2040	5	2340	
6	Paving	Paving	10/5/2038	12/31/2040	5	585	

Acres of Grading (Site Preparation Phase): 2800

Acres of Grading (Grading Phase): 8400

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,868,040; Non-Residential Outdoor: 4,622,680; Striped Parking Area: 1,220,436 (Architectural Coating – sqft)

OffRoad Equipment

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	5	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Site Preparation	Crawler Tractors	7	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	5	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	4	8.00	212	0.43
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Crawler Tractors	5	8.00	212	0.43
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	78	0.48

Trips and VMT

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	247.00	591,868.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	12	30.00	133.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	399.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	12,275.00	4,071.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	2,455.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	6.1010	60.7280	39.8582	0.0725		2.9983	2.9983		2.7861	2.7861		6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**6.1010**	**60.7280**	**39.8582**	**0.0725**	**492.6504**	**2.9983**	**495.6487**	**74.5917**	**2.7861**	**77.3778**		**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.1375	521.1712	91.8431	1.7223	60.5535	1.4891	62.0426	16.0069	1.4247	17.4316		182,924.4863	182,924.4863	10.9353		183,197.8695
Vendor	0.6780	23.5665	5.2429	0.0641	1.5820	0.0420	1.6239	0.4555	0.0402	0.4957		6,756.3177	6,756.3177	0.4924		6,768.6271
Worker	0.1426	0.0925	0.9508	2.7600e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		274.8194	274.8194	7.6500e-003		275.0106
Total	**14.9581**	**544.8301**	**98.0368**	**1.7891**	**62.4485**	**1.5331**	**63.9815**	**16.5454**	**1.4666**	**18.0121**		**189,955.6234**	**189,955.6234**	**11.4354**		**190,241.5072**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					192.1337	0.0000	192.1337	29.0908	0.0000	29.0908			0.0000			0.0000
Off-Road	6.1010	60.7280	39.8582	0.0725		2.9983	2.9983		2.7861	2.7861	0.0000	6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**6.1010**	**60.7280**	**39.8582**	**0.0725**	**192.1337**	**2.9983**	**195.1319**	**29.0908**	**2.7861**	**31.8768**	**0.0000**	**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.1375	521.1712	91.8431	1.7223	60.5535	1.4891	62.0426	16.0069	1.4247	17.4316		182,924.4863	182,924.4863	10.9353		183,197.8695
Vendor	0.6780	23.5665	5.2429	0.0641	1.5820	0.0420	1.6239	0.4555	0.0402	0.4957		6,756.3177	6,756.3177	0.4924		6,768.6271
Worker	0.1426	0.0925	0.9508	2.7600e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		274.8194	274.8194	7.6500e-003		275.0106
Total	**14.9581**	**544.8301**	**98.0368**	**1.7891**	**62.4485**	**1.5331**	**63.9815**	**16.5454**	**1.4666**	**18.0121**		**189,955.6234**	**189,955.6234**	**11.4354**		**190,241.5072**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	5.0759	49.6618	37.9330	0.0725		2.3994	2.3994		2.2315	2.2315		6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**5.0759**	**49.6618**	**37.9330**	**0.0725**	**492.6504**	**2.3994**	**495.0498**	**74.5917**	**2.2315**	**76.8232**		**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.3729	477.0443	88.8759	1.7018	83.5618	1.2349	84.7967	21.6542	1.1815	22.8357		180,839.9140	180,839.9140	10.6787		181,106.8808
Vendor	0.6324	22.3255	4.8672	0.0635	1.5819	0.0353	1.6173	0.4555	0.0338	0.4893		6,700.0294	6,700.0294	0.4761		6,711.9309
Worker	0.1335	0.0831	0.8720	2.6600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		264.9209	264.9209	6.8700e-003		265.0925
Total	**14.1388**	**499.4529**	**94.6151**	**1.7680**	**85.4567**	**1.2722**	**86.7289**	**22.1927**	**1.2171**	**23.4098**		**187,804.8643**	**187,804.8643**	**11.1616**		**188,083.9042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					192.1337	0.0000	192.1337	29.0908	0.0000	29.0908			0.0000			0.0000
Off-Road	5.0759	49.6618	37.9330	0.0725		2.3994	2.3994		2.2315	2.2315	0.0000	6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**5.0759**	**49.6618**	**37.9330**	**0.0725**	**192.1337**	**2.3994**	**194.5331**	**29.0908**	**2.2315**	**31.3222**	**0.0000**	**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.3729	477.0443	88.8759	1.7018	83.5618	1.2349	84.7967	21.6542	1.1815	22.8357		180,839.9140	180,839.9140	10.6787		181,106.8808
Vendor	0.6324	22.3255	4.8672	0.0635	1.5819	0.0353	1.6173	0.4555	0.0338	0.4893		6,700.0294	6,700.0294	0.4761		6,711.9309
Worker	0.1335	0.0831	0.8720	2.6600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		264.9209	264.9209	6.8700e-003		265.0925
Total	**14.1388**	**499.4529**	**94.6151**	**1.7680**	**85.4567**	**1.2722**	**86.7289**	**22.1927**	**1.2171**	**23.4098**		**187,804.8643**	**187,804.8643**	**11.1616**		**188,083.9042**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					51.3204	0.0000	51.3204	18.8413	0.0000	18.8413			0.0000			0.0000
Off-Road	7.6289	86.0232	34.1137	0.0975		3.6738	3.6738		3.3799	3.3799		9,448.4033	9,448.4033	3.0558		9,524.7984
Total	**7.6289**	**86.0232**	**34.1137**	**0.0975**	**51.3204**	**3.6738**	**54.9943**	**18.8413**	**3.3799**	**22.2212**		**9,448.4033**	**9,448.4033**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3405	12.0214	2.6208	0.0342	0.8518	0.0190	0.8708	0.2453	0.0182	0.2635		3,607.7082	3,607.7082	0.2563		3,614.1166
Worker	0.1430	0.0891	0.9343	2.8500e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		283.8438	283.8438	7.3600e-003		284.0277
Total	**0.4836**	**12.1105**	**3.5551**	**0.0370**	**1.1871**	**0.0211**	**1.2082**	**0.3342**	**0.0201**	**0.3543**		**3,891.5520**	**3,891.5520**	**0.2637**		**3,898.1443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.0150	0.0000	20.0150	7.3481	0.0000	7.3481			0.0000			0.0000
Off-Road	7.6289	86.0232	34.1137	0.0975		3.6738	3.6738		3.3799	3.3799	0.0000	9,448.4032	9,448.4032	3.0558		9,524.7984
Total	**7.6289**	**86.0232**	**34.1137**	**0.0975**	**20.0150**	**3.6738**	**23.6888**	**7.3481**	**3.3799**	**10.7280**	**0.0000**	**9,448.4032**	**9,448.4032**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3405	12.0214	2.6208	0.0342	0.8518	0.0190	0.8708	0.2453	0.0182	0.2635		3,607.7082	3,607.7082	0.2563		3,614.1166
Worker	0.1430	0.0891	0.9343	2.8500e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		283.8438	283.8438	7.3600e-003		284.0277
Total	**0.4836**	**12.1105**	**3.5551**	**0.0370**	**1.1871**	**0.0211**	**1.2082**	**0.3342**	**0.0201**	**0.3543**		**3,891.5520**	**3,891.5520**	**0.2637**		**3,898.1443**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	8.5585	95.0158	58.3905	0.1431		3.8162	3.8162		3.5109	3.5109		13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**8.5585**	**95.0158**	**58.3905**	**0.1431**	**33.2542**	**3.8162**	**37.0703**	**8.9106**	**3.5109**	**12.4215**		**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0216	36.0642	7.8624	0.1026	2.5554	0.0571	2.6125	0.7358	0.0546	0.7904		10,823.1245	10,823.1245	0.7690		10,842.3499
Worker	0.1907	0.1188	1.2457	3.8000e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		378.4584	378.4584	9.8100e-003		378.7036
Total	**1.2123**	**36.1830**	**9.1081**	**0.1064**	**3.0026**	**0.0598**	**3.0624**	**0.8544**	**0.0571**	**0.9115**		**11,201.5829**	**11,201.5829**	**0.7788**		**11,221.0535**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9691	0.0000	12.9691	3.4752	0.0000	3.4752			0.0000			0.0000
Off-Road	8.5585	95.0158	58.3905	0.1431		3.8162	3.8162		3.5109	3.5109	0.0000	13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**8.5585**	**95.0158**	**58.3905**	**0.1431**	**12.9691**	**3.8162**	**16.7853**	**3.4752**	**3.5109**	**6.9860**	**0.0000**	**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0216	36.0642	7.8624	0.1026	2.5554	0.0571	2.6125	0.7358	0.0546	0.7904		10,823.1245	10,823.1245	0.7690		10,842.3499
Worker	0.1907	0.1188	1.2457	3.8000e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		378.4584	378.4584	9.8100e-003		378.7036
Total	**1.2123**	**36.1830**	**9.1081**	**0.1064**	**3.0026**	**0.0598**	**3.0624**	**0.8544**	**0.0571**	**0.9115**		**11,201.5829**	**11,201.5829**	**0.7788**		**11,221.0535**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.8147	83.3868	56.1517	0.1430		3.3407	3.3407		3.0734	3.0734		13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**7.8147**	**83.3868**	**56.1517**	**0.1430**	**33.2542**	**3.3407**	**36.5949**	**8.9106**	**3.0734**	**11.9841**		**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7704	27.8737	6.6881	0.0997	2.5554	0.0283	2.5837	0.7358	0.0270	0.7628		10,529.5441	10,529.5441	0.6162		10,544.9481
Worker	0.1789	0.1069	1.1420	3.6500e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		364.2534	364.2534	8.7900e-003		364.4731
Total	**0.9493**	**27.9805**	**7.8301**	**0.1034**	**3.0025**	**0.0310**	**3.0335**	**0.8544**	**0.0295**	**0.8839**		**10,893.7974**	**10,893.7974**	**0.6250**		**10,909.4212**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9691	0.0000	12.9691	3.4752	0.0000	3.4752			0.0000			0.0000
Off-Road	7.8147	83.3868	56.1517	0.1430		3.3407	3.3407		3.0734	3.0734	0.0000	13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**7.8147**	**83.3868**	**56.1517**	**0.1430**	**12.9691**	**3.3407**	**16.3098**	**3.4752**	**3.0734**	**6.5486**	**0.0000**	**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7704	27.8737	6.6881	0.0997	2.5554	0.0283	2.5837	0.7358	0.0270	0.7628		10,529.5441	10,529.5441	0.6162		10,544.9481
Worker	0.1789	0.1069	1.1420	3.6500e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		364.2534	364.2534	8.7900e-003		364.4731
Total	**0.9493**	**27.9805**	**7.8301**	**0.1034**	**3.0025**	**0.0310**	**3.0335**	**0.8544**	**0.0295**	**0.8839**		**10,893.7974**	**10,893.7974**	**0.6250**		**10,909.4212**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.5569	77.9533	55.3134	0.1430		3.1422	3.1422		2.8908	2.8908		13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**7.5569**	**77.9533**	**55.3134**	**0.1430**	**33.2542**	**3.1422**	**36.3964**	**8.9106**	**2.8908**	**11.8014**		**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7592	28.0172	6.4469	0.0996	2.5554	0.0281	2.5835	0.7358	0.0269	0.7626		10,520.2560	10,520.2560	0.6161		10,535.6582
Worker	0.1688	0.0968	1.0631	3.5300e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		352.4450	352.4450	8.0300e-003		352.6457
Total	**0.9280**	**28.1140**	**7.5100**	**0.1032**	**3.0025**	**0.0308**	**3.0332**	**0.8543**	**0.0293**	**0.8837**		**10,872.7010**	**10,872.7010**	**0.6241**		**10,888.3039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.9691	0.0000	12.9691	3.4752	0.0000	3.4752			0.0000			0.0000
Off-Road	7.5569	77.9533	55.3134	0.1430		3.1422	3.1422		2.8908	2.8908	0.0000	13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**7.5569**	**77.9533**	**55.3134**	**0.1430**	**12.9691**	**3.1422**	**16.1113**	**3.4752**	**2.8908**	**6.3660**	**0.0000**	**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7592	28.0172	6.4469	0.0996	2.5554	0.0281	2.5835	0.7358	0.0269	0.7626		10,520.2560	10,520.2560	0.6161		10,535.6582
Worker	0.1688	0.0968	1.0631	3.5300e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		352.4450	352.4450	8.0300e-003		352.6457
Total	**0.9280**	**28.1140**	**7.5100**	**0.1032**	**3.0025**	**0.0308**	**3.0332**	**0.8543**	**0.0293**	**0.8837**		**10,872.7010**	**10,872.7010**	**0.6241**		**10,888.3039**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2966	43.0173	30.9138	0.0766		1.7847	1.7847		1.6672	1.6672		7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**4.2966**	**43.0173**	**30.9138**	**0.0766**		**1.7847**	**1.7847**		**1.6672**	**1.6672**		**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7459	285.8598	65.7777	1.0164	26.0724	0.2866	26.3590	7.5071	0.2740	7.7810		107,338.2508	107,338.2508	6.2859		107,495.3994
Worker	51.8103	29.7015	326.2326	1.0848	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		108,156.5574	108,156.5574	2.4638		108,218.1527
Total	**59.5562**	**315.5613**	**392.0103**	**2.1012**	**163.2780**	**1.1078**	**164.3858**	**43.8946**	**1.0298**	**44.9244**		**215,494.8082**	**215,494.8082**	**8.7498**		**215,713.5521**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2966	43.0173	30.9138	0.0766		1.7847	1.7847		1.6672	1.6672	0.0000	7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**4.2966**	**43.0173**	**30.9138**	**0.0766**		**1.7847**	**1.7847**		**1.6672**	**1.6672**	**0.0000**	**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7459	285.8598	65.7777	1.0164	26.0724	0.2866	26.3590	7.5071	0.2740	7.7810		107,338.2508	107,338.2508	6.2859		107,495.3994
Worker	51.8103	29.7015	326.2326	1.0848	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		108,156.5574	108,156.5574	2.4638		108,218.1527
Total	**59.5562**	**315.5613**	**392.0103**	**2.1012**	**163.2780**	**1.1078**	**164.3858**	**43.8946**	**1.0298**	**44.9244**		**215,494.8082**	**215,494.8082**	**8.7498**		**215,713.5521**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.5453	283.9748	63.3106	1.0104	26.0721	0.2822	26.3543	7.5070	0.2698	7.7767		106,730.8243	106,730.8243	6.2568		106,887.2449
Worker	48.9992	26.9827	301.3754	1.0415	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		103,863.3299	103,863.3299	2.2283		103,919.0384
Total	**56.5445**	**310.9575**	**364.6860**	**2.0519**	**163.2777**	**1.0866**	**164.3643**	**43.8945**	**1.0100**	**44.9046**		**210,594.1542**	**210,594.1542**	**8.4852**		**210,806.2833**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.5453	283.9748	63.3106	1.0104	26.0721	0.2822	26.3543	7.5070	0.2698	7.7767		106,730.8243	106,730.8243	6.2568		106,887.2449
Worker	48.9992	26.9827	301.3754	1.0415	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		103,863.3299	103,863.3299	2.2283		103,919.0384
Total	**56.5445**	**310.9575**	**364.6860**	**2.0519**	**163.2777**	**1.0866**	**164.3643**	**43.8945**	**1.0100**	**44.9046**		**210,594.1542**	**210,594.1542**	**8.4852**		**210,806.2833**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3756	282.0055	61.4120	1.0047	26.0718	0.2779	26.3497	7.5069	0.2656	7.7725		106,152.8156	106,152.8156	6.2106		106,308.0806
Worker	46.5394	24.6740	279.9572	1.0036	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		100,097.3441	100,097.3441	2.0256		100,147.9831
Total	**53.9150**	**306.6795**	**341.3691**	**2.0082**	**163.2774**	**1.0563**	**164.3337**	**43.8944**	**0.9819**	**44.8764**		**206,250.1597**	**206,250.1597**	**8.2362**		**206,456.0637**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3756	282.0055	61.4120	1.0047	26.0718	0.2779	26.3497	7.5069	0.2656	7.7725		106,152.8156	106,152.8156	6.2106		106,308.0806
Worker	46.5394	24.6740	279.9572	1.0036	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		100,097.3441	100,097.3441	2.0256		100,147.9831
Total	**53.9150**	**306.6795**	**341.3691**	**2.0082**	**163.2774**	**1.0563**	**164.3337**	**43.8944**	**0.9819**	**44.8764**		**206,250.1597**	**206,250.1597**	**8.2362**		**206,456.0637**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2332	280.1550	59.8355	0.9998	26.0716	0.2733	26.3449	7.5068	0.2612	7.7680		105,662.9522	105,662.9522	6.1573		105,816.8842
Worker	44.1380	22.6045	260.9095	0.9701	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		96,772.7615	96,772.7615	1.8447		96,818.8779
Total	**51.3713**	**302.7595**	**320.7450**	**1.9698**	**163.2772**	**1.0104**	**164.2876**	**43.8944**	**0.9394**	**44.8337**		**202,435.7137**	**202,435.7137**	**8.0019**		**202,635.7621**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2332	280.1550	59.8355	0.9998	26.0716	0.2733	26.3449	7.5068	0.2612	7.7680		105,662.9522	105,662.9522	6.1573		105,816.8842
Worker	44.1380	22.6045	260.9095	0.9701	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		96,772.7615	96,772.7615	1.8447		96,818.8779
Total	**51.3713**	**302.7595**	**320.7450**	**1.9698**	**163.2772**	**1.0104**	**164.2876**	**43.8944**	**0.9394**	**44.8337**		**202,435.7137**	**202,435.7137**	**8.0019**		**202,635.7621**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1152	278.7024	58.6028	0.9957	26.0715	0.2703	26.3418	7.5067	0.2583	7.7651		105,248.7328	105,248.7328	6.0945		105,401.0957
Worker	41.6367	20.7501	244.2176	0.9406	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		93,853.4866	93,853.4866	1.6884		93,895.6967
Total	**48.7519**	**299.4525**	**302.8204**	**1.9363**	**163.2771**	**0.9542**	**164.2313**	**43.8943**	**0.8875**	**44.7818**		**199,102.2194**	**199,102.2194**	**7.7829**		**199,296.7924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1152	278.7024	58.6028	0.9957	26.0715	0.2703	26.3418	7.5067	0.2583	7.7651		105,248.7328	105,248.7328	6.0945		105,401.0957
Worker	41.6367	20.7501	244.2176	0.9406	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		93,853.4866	93,853.4866	1.6884		93,895.6967
Total	**48.7519**	**299.4525**	**302.8204**	**1.9363**	**163.2771**	**0.9542**	**164.2313**	**43.8943**	**0.8875**	**44.7818**		**199,102.2194**	**199,102.2194**	**7.7829**		**199,296.7924**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0123	277.3439	57.4860	0.9922	26.0714	0.2670	26.3384	7.5067	0.2552	7.7619		104,899.5643	104,899.5643	6.0368		105,050.4843
Worker	38.8904	18.9898	228.0579	0.9147	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		91,281.0276	91,281.0276	1.5377		91,319.4696
Total	**45.9026**	**296.3336**	**285.5438**	**1.9069**	**163.2769**	**0.9017**	**164.1786**	**43.8943**	**0.8390**	**44.7333**		**196,180.5919**	**196,180.5919**	**7.5745**		**196,369.9539**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0123	277.3439	57.4860	0.9922	26.0714	0.2670	26.3384	7.5067	0.2552	7.7619		104,899.5643	104,899.5643	6.0368		105,050.4843
Worker	38.8904	18.9898	228.0579	0.9147	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		91,281.0276	91,281.0276	1.5377		91,319.4696
Total	**45.9026**	**296.3336**	**285.5438**	**1.9069**	**163.2769**	**0.9017**	**164.1786**	**43.8943**	**0.8390**	**44.7333**		**196,180.5919**	**196,180.5919**	**7.5745**		**196,369.9539**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9299	276.0385	56.6867	0.9892	26.0713	0.2638	26.3350	7.5066	0.2521	7.7588		104,600.5103	104,600.5103	5.9756		104,749.9006
Worker	36.1864	17.3686	213.4923	0.8918	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		89,015.3690	89,015.3690	1.4026		89,050.4328
Total	**43.1163**	**293.4071**	**270.1791**	**1.8811**	**163.2768**	**0.8536**	**164.1304**	**43.8942**	**0.7946**	**44.6888**		**193,615.8793**	**193,615.8793**	**7.3782**		**193,800.3334**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9299	276.0385	56.6867	0.9892	26.0713	0.2638	26.3350	7.5066	0.2521	7.7588		104,600.5103	104,600.5103	5.9756		104,749.9006
Worker	36.1864	17.3686	213.4923	0.8918	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		89,015.3690	89,015.3690	1.4026		89,050.4328
Total	**43.1163**	**293.4071**	**270.1791**	**1.8811**	**163.2768**	**0.8536**	**164.1304**	**43.8942**	**0.7946**	**44.6888**		**193,615.8793**	**193,615.8793**	**7.3782**		**193,800.3334**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9287	276.3025	56.4755	0.9896	26.0711	0.2621	26.3332	7.5066	0.2505	7.7571		104,648.5596	104,648.5596	5.9257		104,796.7022
Worker	33.2165	15.7805	200.4136	0.8730	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		87,152.1113	87,152.1113	1.2803		87,184.1198
Total	**40.1452**	**292.0831**	**256.8891**	**1.8626**	**163.2767**	**0.8141**	**164.0908**	**43.8942**	**0.7582**	**44.6524**		**191,800.6709**	**191,800.6709**	**7.2060**		**191,980.8220**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9287	276.3025	56.4755	0.9896	26.0711	0.2621	26.3332	7.5066	0.2505	7.7571		104,648.5596	104,648.5596	5.9257		104,796.7022
Worker	33.2165	15.7805	200.4136	0.8730	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		87,152.1113	87,152.1113	1.2803		87,184.1198
Total	**40.1452**	**292.0831**	**256.8891**	**1.8626**	**163.2767**	**0.8141**	**164.0908**	**43.8942**	**0.7582**	**44.6524**		**191,800.6709**	**191,800.6709**	**7.2060**		**191,980.8220**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8846	275.2854	56.0951	0.9883	26.0710	0.2599	26.3309	7.5065	0.2484	7.7550		104,516.6357	104,516.6357	5.8839		104,663.7330
Worker	30.5745	14.4122	187.8645	0.8554	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		85,405.8021	85,405.8021	1.1665		85,434.9644
Total	**37.4591**	**289.6976**	**243.9597**	**1.8436**	**163.2766**	**0.7739**	**164.0504**	**43.8941**	**0.7211**	**44.6153**		**189,922.4378**	**189,922.4378**	**7.0504**		**190,098.6974**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8846	275.2854	56.0951	0.9883	26.0710	0.2599	26.3309	7.5065	0.2484	7.7550		104,516.6357	104,516.6357	5.8839		104,663.7330
Worker	30.5745	14.4122	187.8645	0.8554	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		85,405.8021	85,405.8021	1.1665		85,434.9644
Total	**37.4591**	**289.6976**	**243.9597**	**1.8436**	**163.2766**	**0.7739**	**164.0504**	**43.8941**	**0.7211**	**44.6153**		**189,922.4378**	**189,922.4378**	**7.0504**		**190,098.6974**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8562	274.3794	55.8262	0.9874	26.0709	0.2579	26.3288	7.5065	0.2465	7.7530		104,432.5685	104,432.5685	5.8438		104,578.6638
Worker	28.2842	13.2463	177.0526	0.8400	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		83,888.2799	83,888.2799	1.0687		83,914.9978
Total	**35.1403**	**287.6257**	**232.8788**	**1.8274**	**163.2765**	**0.7375**	**164.0140**	**43.8941**	**0.6876**	**44.5817**		**188,320.8485**	**188,320.8485**	**6.9125**		**188,493.6615**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8562	274.3794	55.8262	0.9874	26.0709	0.2579	26.3288	7.5065	0.2465	7.7530		104,432.5685	104,432.5685	5.8438		104,578.6638
Worker	28.2842	13.2463	177.0526	0.8400	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		83,888.2799	83,888.2799	1.0687		83,914.9978
Total	**35.1403**	**287.6257**	**232.8788**	**1.8274**	**163.2765**	**0.7375**	**164.0140**	**43.8941**	**0.6876**	**44.5817**		**188,320.8485**	**188,320.8485**	**6.9125**		**188,493.6615**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8322	273.5861	55.5917	0.9869	26.0708	0.2559	26.3267	7.5065	0.2445	7.7510		104,386.2199	104,386.2199	5.8082		104,531.4255
Worker	26.3787	12.2858	166.9046	0.8267	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		82,570.2468	82,570.2468	0.9779		82,594.6946
Total	**33.2110**	**285.8718**	**222.4963**	**1.8136**	**163.2764**	**0.7036**	**163.9800**	**43.8941**	**0.6564**	**44.5504**		**186,956.4667**	**186,956.4667**	**6.7861**		**187,126.1202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8322	273.5861	55.5917	0.9869	26.0708	0.2559	26.3267	7.5065	0.2445	7.7510		104,386.2199	104,386.2199	5.8082		104,531.4255
Worker	26.3787	12.2858	166.9046	0.8267	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		82,570.2468	82,570.2468	0.9779		82,594.6946
Total	**33.2110**	**285.8718**	**222.4963**	**1.8136**	**163.2764**	**0.7036**	**163.9800**	**43.8941**	**0.6564**	**44.5504**		**186,956.4667**	**186,956.4667**	**6.7861**		**187,126.1202**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2170	12.4263	28.4594	0.0901		0.2378	0.2378		0.2378	0.2378		8,464.4907	8,464.4907	0.2854		8,471.6250
Total	**3.2170**	**12.4263**	**28.4594**	**0.0901**		**0.2378**	**0.2378**		**0.2378**	**0.2378**		**8,464.4907**	**8,464.4907**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7718	271.2556	54.6205	0.9869	26.0710	0.2502	26.3212	7.5065	0.2391	7.7456		104,386.8278	104,386.8278	5.6922		104,529.1322
Worker	18.9725	9.3173	132.9124	0.7804	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		77,983.7745	77,983.7745	0.6777		78,000.7168
Total	**25.7443**	**280.5728**	**187.5329**	**1.7673**	**163.2765**	**0.5740**	**163.8505**	**43.8941**	**0.5369**	**44.4310**		**182,370.6023**	**182,370.6023**	**6.3699**		**182,529.8490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2170	12.4263	28.4594	0.0901		0.2378	0.2378		0.2378	0.2378	0.0000	8,464.4906	8,464.4906	0.2854		8,471.6250
Total	**3.2170**	**12.4263**	**28.4594**	**0.0901**		**0.2378**	**0.2378**		**0.2378**	**0.2378**	**0.0000**	**8,464.4906**	**8,464.4906**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7718	271.2556	54.6205	0.9869	26.0710	0.2502	26.3212	7.5065	0.2391	7.7456		104,386.8278	104,386.8278	5.6922		104,529.1322
Worker	18.9725	9.3173	132.9124	0.7804	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		77,983.7745	77,983.7745	0.6777		78,000.7168
Total	**25.7443**	**280.5728**	**187.5329**	**1.7673**	**163.2765**	**0.5740**	**163.8505**	**43.8941**	**0.5369**	**44.4310**		**182,370.6023**	**182,370.6023**	**6.3699**		**182,529.8490**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.1149	2.8824	37.5729	0.1711	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		17,081.1604	17,081.1604	0.2333		17,086.9929
Total	**6.1149**	**2.8824**	**37.5729**	**0.1711**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**17,081.1604**	**17,081.1604**	**0.2333**		**17,086.9929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.1149	2.8824	37.5729	0.1711	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		17,081.1604	17,081.1604	0.2333		17,086.9929
Total	**6.1149**	**2.8824**	**37.5729**	**0.1711**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**17,081.1604**	**17,081.1604**	**0.2333**		**17,086.9929**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.6568	2.6493	35.4105	0.1680	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		16,777.6560	16,777.6560	0.2137		16,782.9996
Total	**5.6568**	**2.6493**	**35.4105**	**0.1680**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**16,777.6560**	**16,777.6560**	**0.2137**		**16,782.9996**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.6568	2.6493	35.4105	0.1680	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		16,777.6560	16,777.6560	0.2137		16,782.9996
Total	**5.6568**	**2.6493**	**35.4105**	**0.1680**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**16,777.6560**	**16,777.6560**	**0.2137**		**16,782.9996**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2758	2.4572	33.3809	0.1653	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		16,514.0494	16,514.0494	0.1956		16,518.9389
Total	**5.2758**	**2.4572**	**33.3809**	**0.1653**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**16,514.0494**	**16,514.0494**	**0.1956**		**16,518.9389**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2758	2.4572	33.3809	0.1653	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		16,514.0494	16,514.0494	0.1956		16,518.9389
Total	**5.2758**	**2.4572**	**33.3809**	**0.1653**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**16,514.0494**	**16,514.0494**	**0.1956**		**16,518.9389**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3064	1.9387	4.7795	7.9200e-003		0.0198	0.0198		0.0198	0.0198		750.5281	750.5281	0.0264		751.1885
Total	**21.0367**	**1.9387**	**4.7795**	**7.9200e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**		**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7945	1.8635	26.5825	0.1561	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		15,596.7549	15,596.7549	0.1355		15,600.1434
Total	**3.7945**	**1.8635**	**26.5825**	**0.1561**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**15,596.7549**	**15,596.7549**	**0.1355**		**15,600.1434**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3064	1.9387	4.7795	7.9200e-003		0.0198	0.0198		0.0198	0.0198	0.0000	750.5281	750.5281	0.0264		751.1885
Total	**21.0367**	**1.9387**	**4.7795**	**7.9200e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**	**0.0000**	**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7945	1.8635	26.5825	0.1561	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		15,596.7549	15,596.7549	0.1355		15,600.1434
Total	**3.7945**	**1.8635**	**26.5825**	**0.1561**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**15,596.7549**	**15,596.7549**	**0.1355**		**15,600.1434**

3.7 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

3.7 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0224	7.3132	31.6354	0.0561		0.2329	0.2329		0.2329	0.2329		5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1138**	**7.3132**	**31.6354**	**0.0561**		**0.2329**	**0.2329**		**0.2329**	**0.2329**		**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0228	0.3248	1.9100e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		190.5917	190.5917	1.6600e-003		190.6331
Total	**0.0464**	**0.0228**	**0.3248**	**1.9100e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**190.5917**	**190.5917**	**1.6600e-003**		**190.6331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0224	7.3132	31.6354	0.0561		0.2329	0.2329		0.2329	0.2329	0.0000	5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1138**	**7.3132**	**31.6354**	**0.0561**		**0.2329**	**0.2329**		**0.2329**	**0.2329**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0228	0.3248	1.9100e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		190.5917	190.5917	1.6600e-003		190.6331
Total	**0.0464**	**0.0228**	**0.3248**	**1.9100e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**190.5917**	**190.5917**	**1.6600e-003**		**190.6331**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Unrefrigerated Warehouse-No Rail	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Unmitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.3:

CALEEMOD PROJECT CONSTRUCTION (MITIGATED) EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (Construction - Mitigated)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Unrefrigerated Warehouse-No Rail	7,662.72	1000sqft	175.91	7,662,716.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Summer

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Unrefrigerated Warehouse - No Rail represents the sum of the proposed Warehousing and High-Cube Transload & Short-Term Warehouse uses.

Construction Phase - Construction Schedule adjusted to meet the 2040 Operational Year.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Trips and VMT - CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips were ratioed between each phase based on the number of days.

Demolition - Quantity of debis based on total existing use.

Grading - Analysis assumes that up to 20 acres will be disturbed per day.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - All equipment will be equipped with Tier 4 engines. Watering should be increased to a frequency of 4 times per day.

Table Name	Column Name	Default Value	New Value
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tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	10,850.00	4,290.00
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tblLandUse	LandUseSquareFeet	7,662,720.00	7,662,716.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00
tblLandUse	LotAcreage	5.00	1.72
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tblOffRoadEquipment	UsageHours	7.00	8.00
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Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Summer

tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
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tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004

tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004

tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07

tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04

tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23

tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003

tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34

tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
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tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02

tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003

tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20

tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003

tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78

tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95

tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06

tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003

tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26

tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005

tblVehicleEF	MHD	3.2000e-005	6.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73

tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03

tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.9000e-005	7.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004

tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4190e-003
tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004

tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31

tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003

tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33

tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06

tblVehicleEF	SBUS	3.4580e-003	1.2430e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003

tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01

tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003

tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004

tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00

tblVehicleTrips	PR_TP	82.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	3,805,015.50	0.00
tblWater	IndoorWaterUseRate	15,220,421.71	0.00
tblWater	IndoorWaterUseRate	640,264,190.29	0.00
tblWater	IndoorWaterUseRate	1,772,004,000.00	0.00
tblWater	OutdoorWaterUseRate	422,779.50	0.00
tblWater	OutdoorWaterUseRate	9,328,645.57	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	20.4089	603.8556	125.9178	1.9109	555.0989	4.5100	559.6089	91.1371	4.2323	95.3694	0.0000	202,178.8452	202,178.8452	12.4704	0.0000	202,490.6061
2022	18.5913	548.5549	121.1083	1.8898	578.1071	3.8743	581.7597	96.7844	3.5664	100.2148	0.0000	200,022.1258	200,022.1258	12.2092	0.0000	200,327.3555
2023	8.7187	111.7456	63.3820	0.2508	36.2567	3.3706	39.6273	9.7650	3.1020	12.8670	0.0000	25,207.0488	25,207.0488	5.0473	0.0000	25,333.2300
2024	62.8713	360.9507	487.8942	2.3428	163.2780	3.1720	166.1613	43.8946	2.9193	46.5829	0.0000	239,450.7782	239,450.7782	10.4103	0.0000	239,711.0362
2025	59.3753	351.1735	454.8855	2.2879	163.2777	2.6116	165.8893	43.8945	2.4346	46.3291	0.0000	234,002.0761	234,002.0761	10.1041	0.0000	234,254.6792
2026	56.6572	347.0222	427.2642	2.2394	163.2774	2.5821	165.8595	43.8944	2.4071	46.3016	0.0000	229,177.9234	229,177.9234	9.8302	0.0000	229,423.6778
2027	54.0511	343.2301	402.8178	2.1969	163.2772	2.5368	165.8140	43.8944	2.3652	46.2596	0.0000	224,950.7221	224,950.7221	9.5757	0.0000	225,190.1155
2028	51.4177	340.0178	381.5678	2.1597	163.2771	2.4811	165.7582	43.8943	2.3139	46.2082	0.0000	221,255.3864	221,255.3864	9.3423	0.0000	221,488.9443
2029	48.5750	336.9968	361.1025	2.1271	163.2769	2.4291	165.7060	43.8943	2.2658	46.1601	0.0000	218,022.0969	218,022.0969	9.1195	0.0000	218,250.0844
2030	45.7034	315.5544	341.4620	2.1120	163.2768	1.3668	164.6436	43.8942	1.3081	45.2023	0.0000	216,342.7068	216,342.7068	7.3356	0.0000	216,526.0972
2031	42.7804	314.2782	325.8059	2.0915	163.2767	1.3277	164.6044	43.8942	1.2721	45.1663	0.0000	214,322.3857	214,322.3857	7.1544	0.0000	214,501.2463
2032	67.1785	317.0347	361.8866	2.2693	190.7177	1.4447	192.1624	51.1716	1.3839	52.5556	0.0000	232,051.8035	232,051.8035	7.2859	0.0000	232,233.9503
2033	64.4304	314.8296	346.0753	2.2481	190.7176	1.4017	192.1193	51.1716	1.3443	52.5159	0.0000	229,953.9574	229,953.9574	7.1186	0.0000	230,131.9221
2034	62.1028	312.9692	331.2084	2.2299	190.7175	1.3617	192.0792	51.1716	1.3075	52.4790	0.0000	228,162.6297	228,162.6297	6.9646	0.0000	228,336.7435
2035	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2036	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2037	59.7082	306.6907	318.5839	2.2146	190.7174	1.1029	191.8203	51.1715	1.0514	52.2230	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2038	64.1394	316.4701	350.7085	2.2729	191.0528	1.4787	192.5314	51.2605	1.4272	52.6876	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	64.1394	316.4701	350.7085	2.2729	191.0528	1.4787	192.5314	51.2605	1.4272	52.6876	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238
2040	56.6303	307.6490	312.7588	2.2267	191.0530	1.1265	192.1795	51.2605	1.0844	52.3449	0.0000	227,613.6757	227,613.6757	6.5811	0.0000	227,778.2032
Maximum	**67.1785**	**603.8556**	**487.8942**	**2.3428**	**578.1071**	**4.5100**	**581.7597**	**96.7844**	**4.2323**	**100.2148**	**0.0000**	**239,450.7782**	**239,450.7782**	**12.4704**	**0.0000**	**239,711.0362**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	15.1689	546.8588	128.7012	1.9109	190.5376	1.6265	192.1641	35.9392	1.5610	37.5003	0.0000	202,178.8452	202,178.8452	12.4704	0.0000	202,490.6061
2022	14.3764	502.6242	125.8170	1.8898	213.5458	1.3680	214.9138	41.5865	1.3137	42.9002	0.0000	200,022.1258	200,022.1258	12.2092	0.0000	200,327.3555
2023	2.6611	35.9727	78.0088	0.2508	11.6486	0.2642	11.9128	3.1711	0.2628	3.4340	0.0000	25,207.0488	25,207.0488	5.0473	0.0000	25,333.2300
2024	59.5122	323.6241	496.7790	2.3428	163.2780	1.2178	164.4958	43.8946	1.1402	45.0349	0.0000	239,450.7782	239,450.7782	10.4103	0.0000	239,711.0362
2025	56.4118	319.1721	464.4012	2.2879	163.2777	1.1975	164.4752	43.8945	1.1213	45.0158	0.0000	234,002.0761	234,002.0761	10.1041	0.0000	234,254.6792
2026	53.6937	315.0208	436.7800	2.2394	163.2774	1.1679	164.4453	43.8944	1.0938	44.9883	0.0000	229,177.9234	229,177.9234	9.8302	0.0000	229,423.6778
2027	51.0876	311.2287	412.3336	2.1969	163.2772	1.1227	164.3999	43.8944	1.0520	44.9463	0.0000	224,950.7221	224,950.7221	9.5757	0.0000	225,190.1155
2028	48.4542	308.0164	391.0836	2.1597	163.2771	1.0670	164.3441	43.8943	1.0006	44.8949	0.0000	221,255.3864	221,255.3864	9.3423	0.0000	221,488.9443
2029	45.6116	304.9955	370.6183	2.1271	163.2769	1.0150	164.2919	43.8943	0.9526	44.8468	0.0000	218,022.0969	218,022.0969	9.1195	0.0000	218,250.0844

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	42.8430	302.1650	352.4099	2.1120	163.2768	0.9673	164.2442	43.8942	0.9086	44.8028	0.0000	216,342.7068	216,342.7068	7.3356	0.0000	216,526.0972
2031	39.9200	300.8887	336.7538	2.0915	163.2767	0.9283	164.2049	43.8942	0.8726	44.7668	0.0000	214,322.3857	214,322.3857	7.1544	0.0000	214,501.2463
2032	64.0487	301.7052	372.9270	2.2693	190.7177	1.0016	191.7193	51.1716	0.9409	52.1125	0.0000	232,051.8035	232,051.8035	7.2859	0.0000	232,233.9503
2033	61.3006	299.5001	357.1156	2.2481	190.7176	0.9586	191.6762	51.1716	0.9013	52.0729	0.0000	229,953.9573	229,953.9573	7.1186	0.0000	230,131.9221
2034	58.9730	297.6398	342.2488	2.2299	190.7175	0.9186	191.6361	51.1716	0.8644	52.0360	0.0000	228,162.6297	228,162.6297	6.9646	0.0000	228,336.7435
2035	57.0198	296.1816	329.9036	2.2146	190.7174	0.8831	191.6005	51.1715	0.8317	52.0032	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2036	57.0198	296.1816	329.9036	2.2146	190.7174	0.8831	191.6005	51.1715	0.8317	52.0032	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2037	57.0198	296.1816	329.9036	2.2146	190.7174	0.8831	191.6005	51.1715	0.8317	52.0032	0.0000	226,647.4902	226,647.4902	6.7956	0.0000	226,817.3800
2038	59.7309	298.6395	364.9791	2.2729	191.0528	0.9589	192.0117	51.2605	0.9074	52.1679	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238
2039	59.7309	298.6395	364.9791	2.2729	191.0528	0.9589	192.0117	51.2605	0.9074	52.1679	0.0000	232,182.5590	232,182.5590	7.0026	0.0000	232,357.6238
2040	52.6621	294.4356	327.1610	2.2267	191.0530	0.8406	191.8935	51.2605	0.7984	52.0590	0.0000	227,613.6757	227,613.6757	6.5811	0.0000	227,778.2032
Maximum	**64.0487**	**546.8588**	**496.7790**	**2.3428**	**213.5458**	**1.6265**	**214.9138**	**51.2605**	**1.5610**	**52.1679**	**0.0000**	**239,450.7782**	**239,450.7782**	**12.4704**	**0.0000**	**239,711.0362**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.78**	**7.81**	**-3.24**	**0.00**	**17.98**	**51.68**	**18.30**	**11.59**	**51.43**	**13.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/30/2022	5	260	
2	Site Preparation	Site Preparation	5/31/2022	12/12/2022	5	140	
3	Grading	Grading	12/13/2022	7/22/2024	5	420	
4	Building Construction	Building Construction	7/23/2024	12/31/2040	5	4290	
5	Architectural Coating	Architectural Coating	1/13/2032	12/31/2040	5	2340	
6	Paving	Paving	10/5/2038	12/31/2040	5	585	

Acres of Grading (Site Preparation Phase): 2800

Acres of Grading (Grading Phase): 8400

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,868,040; Non-Residential Outdoor: 4,622,680; Striped Parking Area: 1,220,436 (Architectural Coating – sqft)

OffRoad Equipment

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	5	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Site Preparation	Crawler Tractors	7	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	5	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	4	8.00	212	0.43
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Crawler Tractors	5	8.00	212	0.43
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	8.00	78	0.48
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	247.00	591,868.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	12	30.00	133.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	399.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	12,275.00	4,071.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	2,455.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	6.1010	60.7280	39.8582	0.0725		2.9983	2.9983		2.7861	2.7861		6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**6.1010**	**60.7280**	**39.8582**	**0.0725**	**492.6504**	**2.9983**	**495.6487**	**74.5917**	**2.7861**	**77.3778**		**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.5264	519.2197	80.4182	1.7688	60.5535	1.4689	62.0224	16.0069	1.4053	17.4122		187,847.4489	187,847.4489	10.0695		188,099.1857
Vendor	0.6392	23.8201	4.4822	0.0666	1.5820	0.0408	1.6228	0.4555	0.0391	0.4946		7,029.3559	7,029.3559	0.4442		7,040.4615
Worker	0.1423	0.0879	1.1592	3.0800e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		306.3426	306.3426	8.7200e-003		306.5605
Total	**14.3078**	**543.1276**	**86.0596**	**1.8385**	**62.4485**	**1.5117**	**63.9602**	**16.5454**	**1.4462**	**17.9916**		**195,183.1473**	**195,183.1473**	**10.5224**		**195,446.2077**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					128.0891	0.0000	128.0891	19.3938	0.0000	19.3938			0.0000			0.0000
Off-Road	0.8610	3.7311	42.6417	0.0725		0.1148	0.1148		0.1148	0.1148	0.0000	6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**0.8610**	**3.7311**	**42.6417**	**0.0725**	**128.0891**	**0.1148**	**128.2039**	**19.3938**	**0.1148**	**19.5086**	**0.0000**	**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.5264	519.2197	80.4182	1.7688	60.5535	1.4689	62.0224	16.0069	1.4053	17.4122		187,847.4489	187,847.4489	10.0695		188,099.1857
Vendor	0.6392	23.8201	4.4822	0.0666	1.5820	0.0408	1.6228	0.4555	0.0391	0.4946		7,029.3559	7,029.3559	0.4442		7,040.4615
Worker	0.1423	0.0879	1.1592	3.0800e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		306.3426	306.3426	8.7200e-003		306.5605
Total	**14.3078**	**543.1276**	**86.0596**	**1.8385**	**62.4485**	**1.5117**	**63.9602**	**16.5454**	**1.4462**	**17.9916**		**195,183.1473**	**195,183.1473**	**10.5224**		**195,446.2077**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	5.0759	49.6618	37.9330	0.0725		2.3994	2.3994		2.2315	2.2315		6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**5.0759**	**49.6618**	**37.9330**	**0.0725**	**492.6504**	**2.3994**	**495.0498**	**74.5917**	**2.2315**	**76.8232**		**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	12.7871	476.2229	77.9664	1.7483	83.5618	1.2170	84.7787	21.6542	1.1643	22.8185		185,760.2928	185,760.2928	9.8294		186,006.0269
Vendor	0.5954	22.5911	4.1440	0.0661	1.5819	0.0343	1.6162	0.4555	0.0328	0.4883		6,972.9973	6,972.9973	0.4289		6,983.7185
Worker	0.1329	0.0791	1.0649	2.9600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		295.2887	295.2887	7.8200e-003		295.4842
Total	**13.5154**	**498.8931**	**83.1753**	**1.8173**	**85.4567**	**1.2532**	**86.7099**	**22.1927**	**1.1989**	**23.3916**		**193,028.5788**	**193,028.5788**	**10.2660**		**193,285.2296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					128.0891	0.0000	128.0891	19.3938	0.0000	19.3938			0.0000			0.0000
Off-Road	0.8610	3.7311	42.6417	0.0725		0.1148	0.1148		0.1148	0.1148	0.0000	6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**0.8610**	**3.7311**	**42.6417**	**0.0725**	**128.0891**	**0.1148**	**128.2039**	**19.3938**	**0.1148**	**19.5086**	**0.0000**	**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	12.7871	476.2229	77.9664	1.7483	83.5618	1.2170	84.7787	21.6542	1.1643	22.8185		185,760.2928	185,760.2928	9.8294		186,006.0269
Vendor	0.5954	22.5911	4.1440	0.0661	1.5819	0.0343	1.6162	0.4555	0.0328	0.4883		6,972.9973	6,972.9973	0.4289		6,983.7185
Worker	0.1329	0.0791	1.0649	2.9600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		295.2887	295.2887	7.8200e-003		295.4842
Total	**13.5154**	**498.8931**	**83.1753**	**1.8173**	**85.4567**	**1.2532**	**86.7099**	**22.1927**	**1.1989**	**23.3916**		**193,028.5788**	**193,028.5788**	**10.2660**		**193,285.2296**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					51.3204	0.0000	51.3204	18.8413	0.0000	18.8413			0.0000			0.0000
Off-Road	7.6289	86.0232	34.1137	0.0975		3.6738	3.6738		3.3799	3.3799		9,448.4033	9,448.4033	3.0558		9,524.7984
Total	**7.6289**	**86.0232**	**34.1137**	**0.0975**	**51.3204**	**3.6738**	**54.9943**	**18.8413**	**3.3799**	**22.2212**		**9,448.4033**	**9,448.4033**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3206	12.1644	2.2314	0.0356	0.8518	0.0185	0.8703	0.2453	0.0177	0.2629		3,754.6908	3,754.6908	0.2309		3,760.4638
Worker	0.1424	0.0847	1.1409	3.1800e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		316.3807	316.3807	8.3800e-003		316.5902
Total	**0.4630**	**12.2492**	**3.3723**	**0.0388**	**1.1871**	**0.0206**	**1.2077**	**0.3342**	**0.0196**	**0.3538**		**4,071.0716**	**4,071.0716**	**0.2393**		**4,077.0540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.3433	0.0000	13.3433	4.8987	0.0000	4.8987			0.0000			0.0000
Off-Road	1.1980	5.1915	43.9278	0.0975		0.1597	0.1597		0.1597	0.1597	0.0000	9,448.4032	9,448.4032	3.0558		9,524.7984
Total	**1.1980**	**5.1915**	**43.9278**	**0.0975**	**13.3433**	**0.1597**	**13.5031**	**4.8987**	**0.1597**	**5.0585**	**0.0000**	**9,448.4032**	**9,448.4032**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3206	12.1644	2.2314	0.0356	0.8518	0.0185	0.8703	0.2453	0.0177	0.2629		3,754.6908	3,754.6908	0.2309		3,760.4638
Worker	0.1424	0.0847	1.1409	3.1800e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		316.3807	316.3807	8.3800e-003		316.5902
Total	**0.4630**	**12.2492**	**3.3723**	**0.0388**	**1.1871**	**0.0206**	**1.2077**	**0.3342**	**0.0196**	**0.3538**		**4,071.0716**	**4,071.0716**	**0.2393**		**4,077.0540**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	8.5585	95.0158	58.3905	0.1431		3.8162	3.8162		3.5109	3.5109		13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**8.5585**	**95.0158**	**58.3905**	**0.1431**	**33.2542**	**3.8162**	**37.0703**	**8.9106**	**3.5109**	**12.4215**		**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9619	36.4933	6.6942	0.1067	2.5554	0.0554	2.6109	0.7358	0.0530	0.7888		11,264.0725	11,264.0725	0.6928		11,281.3914
Worker	0.1898	0.1130	1.5212	4.2400e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		421.8410	421.8410	0.0112		422.1203
Total	**1.1517**	**36.6063**	**8.2154**	**0.1110**	**3.0026**	**0.0582**	**3.0607**	**0.8544**	**0.0556**	**0.9099**		**11,685.9135**	**11,685.9135**	**0.7039**		**11,703.5116**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6461	0.0000	8.6461	2.3168	0.0000	2.3168			0.0000			0.0000
Off-Road	1.7571	7.6139	70.7786	0.1431		0.2343	0.2343		0.2343	0.2343	0.0000	13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**1.7571**	**7.6139**	**70.7786**	**0.1431**	**8.6461**	**0.2343**	**8.8804**	**2.3168**	**0.2343**	**2.5510**	**0.0000**	**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9619	36.4933	6.6942	0.1067	2.5554	0.0554	2.6109	0.7358	0.0530	0.7888		11,264.0725	11,264.0725	0.6928		11,281.3914
Worker	0.1898	0.1130	1.5212	4.2400e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		421.8410	421.8410	0.0112		422.1203
Total	**1.1517**	**36.6063**	**8.2154**	**0.1110**	**3.0026**	**0.0582**	**3.0607**	**0.8544**	**0.0556**	**0.9099**		**11,685.9135**	**11,685.9135**	**0.7039**		**11,703.5116**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.8147	83.3868	56.1517	0.1430		3.3407	3.3407		3.0734	3.0734		13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**7.8147**	**83.3868**	**56.1517**	**0.1430**	**33.2542**	**3.3407**	**36.5949**	**8.9106**	**3.0734**	**11.9841**		**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7265	28.2571	5.8334	0.1037	2.5554	0.0273	2.5827	0.7358	0.0261	0.7619		10,951.3324	10,951.3324	0.5580		10,965.2814
Worker	0.1776	0.1017	1.3968	4.0700e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		405.9801	405.9801	0.0100		406.2301
Total	**0.9040**	**28.3588**	**7.2303**	**0.1078**	**3.0025**	**0.0300**	**3.0325**	**0.8544**	**0.0286**	**0.8829**		**11,357.3124**	**11,357.3124**	**0.5680**		**11,371.5115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6461	0.0000	8.6461	2.3168	0.0000	2.3168			0.0000			0.0000
Off-Road	1.7571	7.6139	70.7786	0.1430		0.2343	0.2343		0.2343	0.2343	0.0000	13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**1.7571**	**7.6139**	**70.7786**	**0.1430**	**8.6461**	**0.2343**	**8.8804**	**2.3168**	**0.2343**	**2.5510**	**0.0000**	**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7265	28.2571	5.8334	0.1037	2.5554	0.0273	2.5827	0.7358	0.0261	0.7619		10,951.3324	10,951.3324	0.5580		10,965.2814
Worker	0.1776	0.1017	1.3968	4.0700e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		405.9801	405.9801	0.0100		406.2301
Total	**0.9040**	**28.3588**	**7.2303**	**0.1078**	**3.0025**	**0.0300**	**3.0325**	**0.8544**	**0.0286**	**0.8829**		**11,357.3124**	**11,357.3124**	**0.5680**		**11,371.5115**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.5569	77.9533	55.3134	0.1430		3.1422	3.1422		2.8908	2.8908		13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**7.5569**	**77.9533**	**55.3134**	**0.1430**	**33.2542**	**3.1422**	**36.3964**	**8.9106**	**2.8908**	**11.8014**		**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7161	28.3885	5.6109	0.1036	2.5554	0.0272	2.5826	0.7358	0.0260	0.7618		10,937.3471	10,937.3471	0.5575		10,951.2845
Worker	0.1671	0.0922	1.3026	3.9400e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		392.8143	392.8143	9.1300e-003		393.0426
Total	**0.8832**	**28.4806**	**6.9135**	**0.1075**	**3.0025**	**0.0299**	**3.0323**	**0.8543**	**0.0285**	**0.8828**		**11,330.1614**	**11,330.1614**	**0.5666**		**11,344.3271**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6461	0.0000	8.6461	2.3168	0.0000	2.3168			0.0000			0.0000
Off-Road	1.7571	7.6139	70.7786	0.1430		0.2343	0.2343		0.2343	0.2343	0.0000	13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**1.7571**	**7.6139**	**70.7786**	**0.1430**	**8.6461**	**0.2343**	**8.8804**	**2.3168**	**0.2343**	**2.5510**	**0.0000**	**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7161	28.3885	5.6109	0.1036	2.5554	0.0272	2.5826	0.7358	0.0260	0.7618		10,937.3471	10,937.3471	0.5575		10,951.2845
Worker	0.1671	0.0922	1.3026	3.9400e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		392.8143	392.8143	9.1300e-003		393.0426
Total	**0.8832**	**28.4806**	**6.9135**	**0.1075**	**3.0025**	**0.0299**	**3.0323**	**0.8543**	**0.0285**	**0.8828**		**11,330.1614**	**11,330.1614**	**0.5666**		**11,344.3271**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2966	43.0173	30.9138	0.0766		1.7847	1.7847		1.6672	1.6672		7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**4.2966**	**43.0173**	**30.9138**	**0.0766**		**1.7847**	**1.7847**		**1.6672**	**1.6672**		**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3065	289.6477	57.2482	1.0565	26.0724	0.2775	26.3499	7.5071	0.2652	7.7723		111,593.8342	111,593.8342	5.6882		111,736.0380
Worker	51.2682	28.2857	399.7322	1.2096	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		120,544.8960	120,544.8960	2.8017		120,614.9394
Total	**58.5747**	**317.9334**	**456.9804**	**2.2662**	**163.2780**	**1.0987**	**164.3767**	**43.8946**	**1.0211**	**44.9157**		**232,138.7302**	**232,138.7302**	**8.4899**		**232,350.9773**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3065	289.6477	57.2482	1.0565	26.0724	0.2775	26.3499	7.5071	0.2652	7.7723		111,593.8342	111,593.8342	5.6882		111,736.0380
Worker	51.2682	28.2857	399.7322	1.2096	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		120,544.8960	120,544.8960	2.8017		120,614.9394
Total	**58.5747**	**317.9334**	**456.9804**	**2.2662**	**163.2780**	**1.0987**	**164.3767**	**43.8946**	**1.0211**	**44.9157**		**232,138.7302**	**232,138.7302**	**8.4899**		**232,350.9773**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1137	287.7720	54.9374	1.0500	26.0721	0.2740	26.3461	7.5070	0.2619	7.7688		110,940.1906	110,940.1906	5.6589		111,081.6620
Worker	48.3606	25.7094	369.6652	1.1613	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		115,751.7121	115,751.7121	2.5328		115,815.0308
Total	**55.4744**	**313.4814**	**424.6027**	**2.2113**	**163.2777**	**1.0783**	**164.3560**	**43.8945**	**1.0021**	**44.8966**		**226,691.9027**	**226,691.9027**	**8.1916**		**226,896.6928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1137	287.7720	54.9374	1.0500	26.0721	0.2740	26.3461	7.5070	0.2619	7.7688		110,940.1906	110,940.1906	5.6589		111,081.6620
Worker	48.3606	25.7094	369.6652	1.1613	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		115,751.7121	115,751.7121	2.5328		115,815.0308
Total	**55.4744**	**313.4814**	**424.6027**	**2.2113**	**163.2777**	**1.0783**	**164.3560**	**43.8945**	**1.0021**	**44.8966**		**226,691.9027**	**226,691.9027**	**8.1916**		**226,896.6928**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9508	285.8106	53.1716	1.0439	26.0718	0.2703	26.3422	7.5069	0.2584	7.7653		110,316.1344	110,316.1344	5.6158		110,456.5283
Worker	45.8054	23.5195	343.8098	1.1189	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		111,551.6157	111,551.6157	2.3019		111,609.1631
Total	**52.7562**	**309.3301**	**396.9814**	**2.1628**	**163.2774**	**1.0488**	**164.3262**	**43.8944**	**0.9747**	**44.8691**		**221,867.7501**	**221,867.7501**	**7.9177**		**222,065.6914**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9508	285.8106	53.1716	1.0439	26.0718	0.2703	26.3422	7.5069	0.2584	7.7653		110,316.1344	110,316.1344	5.6158		110,456.5283
Worker	45.8054	23.5195	343.8098	1.1189	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		111,551.6157	111,551.6157	2.3019		111,609.1631
Total	**52.7562**	**309.3301**	**396.9814**	**2.1628**	**163.2774**	**1.0488**	**164.3262**	**43.8944**	**0.9747**	**44.8691**		**221,867.7501**	**221,867.7501**	**7.9177**		**222,065.6914**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8139	283.9811	51.7011	1.0387	26.0716	0.2664	26.3381	7.5068	0.2547	7.7614		109,791.2362	109,791.2362	5.5668		109,930.4057
Worker	43.3362	21.5569	320.8339	1.0816	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		107,849.3125	107,849.3125	2.0964		107,901.7234
Total	**50.1501**	**305.5380**	**372.5350**	**2.1202**	**163.2772**	**1.0035**	**164.2807**	**43.8944**	**0.9328**	**44.8272**		**217,640.5487**	**217,640.5487**	**7.6632**		**217,832.1291**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8139	283.9811	51.7011	1.0387	26.0716	0.2664	26.3381	7.5068	0.2547	7.7614		109,791.2362	109,791.2362	5.5668		109,930.4057
Worker	43.3362	21.5569	320.8339	1.0816	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		107,849.3125	107,849.3125	2.0964		107,901.7234
Total	**50.1501**	**305.5380**	**372.5350**	**2.1202**	**163.2772**	**1.0035**	**164.2807**	**43.8944**	**0.9328**	**44.8272**		**217,640.5487**	**217,640.5487**	**7.6632**		**217,832.1291**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7007	282.5268	50.5564	1.0342	26.0715	0.2639	26.3354	7.5067	0.2523	7.7590		109,343.2759	109,343.2759	5.5099		109,481.0244
Worker	40.8161	19.7989	300.7286	1.0488	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		104,601.9372	104,601.9372	1.9199		104,649.9335
Total	**47.5167**	**302.3257**	**351.2850**	**2.0830**	**163.2771**	**0.9478**	**164.2249**	**43.8943**	**0.8814**	**44.7757**		**213,945.2131**	**213,945.2131**	**7.4298**		**214,130.9579**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7007	282.5268	50.5564	1.0342	26.0715	0.2639	26.3354	7.5067	0.2523	7.7590		109,343.2759	109,343.2759	5.5099		109,481.0244
Worker	40.8161	19.7989	300.7286	1.0488	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		104,601.9372	104,601.9372	1.9199		104,649.9335
Total	**47.5167**	**302.3257**	**351.2850**	**2.0830**	**163.2771**	**0.9478**	**164.2249**	**43.8943**	**0.8814**	**44.7757**		**213,945.2131**	**213,945.2131**	**7.4298**		**214,130.9579**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6017	281.1723	49.5151	1.0305	26.0714	0.2612	26.3325	7.5067	0.2496	7.7563		108,967.4625	108,967.4625	5.4578		109,103.9080
Worker	38.0723	18.1325	281.3046	1.0200	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		101,744.4611	101,744.4611	1.7492		101,788.1900
Total	**44.6741**	**299.3048**	**330.8197**	**2.0505**	**163.2769**	**0.8958**	**164.1727**	**43.8943**	**0.8334**	**44.7277**		**210,711.9236**	**210,711.9236**	**7.2070**		**210,892.0980**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6017	281.1723	49.5151	1.0305	26.0714	0.2612	26.3325	7.5067	0.2496	7.7563		108,967.4625	108,967.4625	5.4578		109,103.9080
Worker	38.0723	18.1325	281.3046	1.0200	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		101,744.4611	101,744.4611	1.7492		101,788.1900
Total	**44.6741**	**299.3048**	**330.8197**	**2.0505**	**163.2769**	**0.8958**	**164.1727**	**43.8943**	**0.8334**	**44.7277**		**210,711.9236**	**210,711.9236**	**7.2070**		**210,892.0980**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5224	279.8758	48.7711	1.0273	26.0713	0.2584	26.3297	7.5066	0.2470	7.7536		108,647.7816	108,647.7816	5.4031		108,782.8596
Worker	35.3831	16.5985	263.8402	0.9946	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		99,230.4353	99,230.4353	1.5968		99,270.3556
Total	**41.9055**	**296.4743**	**312.6113**	**2.0219**	**163.2768**	**0.8482**	**164.1250**	**43.8942**	**0.7895**	**44.6837**		**207,878.2169**	**207,878.2169**	**6.9999**		**208,053.2151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5224	279.8758	48.7711	1.0273	26.0713	0.2584	26.3297	7.5066	0.2470	7.7536		108,647.7816	108,647.7816	5.4031		108,782.8596
Worker	35.3831	16.5985	263.8402	0.9946	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		99,230.4353	99,230.4353	1.5968		99,270.3556
Total	**41.9055**	**296.4743**	**312.6113**	**2.0219**	**163.2768**	**0.8482**	**164.1250**	**43.8942**	**0.7895**	**44.6837**		**207,878.2169**	**207,878.2169**	**6.9999**		**208,053.2151**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5232	280.0978	48.5940	1.0276	26.0711	0.2571	26.3282	7.5066	0.2458	7.7523		108,685.8108	108,685.8108	5.3590		108,819.7864
Worker	32.4594	15.1003	248.3612	0.9738	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		97,172.0850	97,172.0850	1.4597		97,208.5779
Total	**38.9826**	**295.1981**	**296.9552**	**2.0014**	**163.2767**	**0.8091**	**164.0858**	**43.8942**	**0.7535**	**44.6476**		**205,857.8958**	**205,857.8958**	**6.8187**		**206,028.3643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5232	280.0978	48.5940	1.0276	26.0711	0.2571	26.3282	7.5066	0.2458	7.7523		108,685.8108	108,685.8108	5.3590		108,819.7864
Worker	32.4594	15.1003	248.3612	0.9738	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		97,172.0850	97,172.0850	1.4597		97,208.5779
Total	**38.9826**	**295.1981**	**296.9552**	**2.0014**	**163.2767**	**0.8091**	**164.0858**	**43.8942**	**0.7535**	**44.6476**		**205,857.8958**	**205,857.8958**	**6.8187**		**206,028.3643**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4798	279.1045	48.2262	1.0262	26.0710	0.2552	26.3262	7.5065	0.2439	7.7505		108,552.0598	108,552.0598	5.3218		108,685.1046
Worker	29.8515	13.8056	233.3465	0.9542	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		95,237.2714	95,237.2714	1.3317		95,270.5634
Total	**36.3313**	**292.9101**	**281.5727**	**1.9804**	**163.2766**	**0.7691**	**164.0457**	**43.8941**	**0.7166**	**44.6107**		**203,789.3312**	**203,789.3312**	**6.6535**		**203,955.6680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4798	279.1045	48.2262	1.0262	26.0710	0.2552	26.3262	7.5065	0.2439	7.7505		108,552.0598	108,552.0598	5.3218		108,685.1046
Worker	29.8515	13.8056	233.3465	0.9542	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		95,237.2714	95,237.2714	1.3317		95,270.5634
Total	**36.3313**	**292.9101**	**281.5727**	**1.9804**	**163.2766**	**0.7691**	**164.0457**	**43.8941**	**0.7166**	**44.6107**		**203,789.3312**	**203,789.3312**	**6.6535**		**203,955.6680**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4514	278.2257	47.9579	1.0254	26.0709	0.2534	26.3243	7.5065	0.2422	7.7487		108,471.8442	108,471.8442	5.2863		108,604.0013
Worker	27.5851	12.7003	220.3939	0.9372	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		93,555.9126	93,555.9126	1.2219		93,586.4593
Total	**34.0365**	**290.9260**	**268.3519**	**1.9626**	**163.2765**	**0.7330**	**164.0095**	**43.8941**	**0.6833**	**44.5774**		**202,027.7568**	**202,027.7568**	**6.5082**		**202,190.4606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4514	278.2257	47.9579	1.0254	26.0709	0.2534	26.3243	7.5065	0.2422	7.7487		108,471.8442	108,471.8442	5.2863		108,604.0013
Worker	27.5851	12.7003	220.3939	0.9372	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		93,555.9126	93,555.9126	1.2219		93,586.4593
Total	**34.0365**	**290.9260**	**268.3519**	**1.9626**	**163.2765**	**0.7330**	**164.0095**	**43.8941**	**0.6833**	**44.5774**		**202,027.7568**	**202,027.7568**	**6.5082**		**202,190.4606**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4272	277.4611	47.7198	1.0249	26.0708	0.2516	26.3224	7.5065	0.2405	7.7470		108,433.0321	108,433.0321	5.2548		108,564.4020
Worker	25.6657	11.7872	208.2033	0.9225	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		92,095.4830	92,095.4830	1.1198		92,123.4766
Total	**32.0929**	**289.2483**	**255.9231**	**1.9474**	**163.2764**	**0.6993**	**163.9757**	**43.8941**	**0.6523**	**44.5463**		**200,528.5151**	**200,528.5151**	**6.3745**		**200,687.8786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4272	277.4611	47.7198	1.0249	26.0708	0.2516	26.3224	7.5065	0.2405	7.7470		108,433.0321	108,433.0321	5.2548		108,564.4020
Worker	25.6657	11.7872	208.2033	0.9225	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		92,095.4830	92,095.4830	1.1198		92,123.4766
Total	**32.0929**	**289.2483**	**255.9231**	**1.9474**	**163.2764**	**0.6993**	**163.9757**	**43.8941**	**0.6523**	**44.5463**		**200,528.5151**	**200,528.5151**	**6.3745**		**200,687.8786**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.4074	276.8220	47.5265	1.0247	26.0708	0.2500	26.3208	7.5065	0.2390	7.7454		108,413.1741	108,413.1741	5.2272		108,543.8548
Worker	24.0545	11.1046	198.0768	0.9098	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		90,849.4151	90,849.4151	1.0356		90,875.3038
Total	**30.4619**	**287.9266**	**245.6033**	**1.9346**	**163.2763**	**0.6695**	**163.9458**	**43.8940**	**0.6248**	**44.5188**		**199,262.5892**	**199,262.5892**	**6.2628**		**199,419.1587**

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2170	12.4263	28.4594	0.0901		0.2378	0.2378		0.2378	0.2378		8,464.4907	8,464.4907	0.2854		8,471.6250
Total	**3.2170**	**12.4263**	**28.4594**	**0.0901**		**0.2378**	**0.2378**		**0.2378**	**0.2378**		**8,464.4907**	**8,464.4907**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3658	275.2005	46.7527	1.0252	26.0710	0.2467	26.3177	7.5065	0.2358	7.7423		108,462.5856	108,462.5856	5.1502		108,591.3417
Worker	18.2104	8.9570	167.2693	0.8710	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		87,008.6578	87,008.6578	0.7822		87,028.2117
Total	**24.5762**	**284.1575**	**214.0220**	**1.8962**	**163.2765**	**0.5705**	**163.8470**	**43.8941**	**0.5336**	**44.4277**		**195,471.2434**	**195,471.2434**	**5.9324**		**195,619.5534**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4906	8,464.4906	0.2854		8,471.6250
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4906**	**8,464.4906**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3658	275.2005	46.7527	1.0252	26.0710	0.2467	26.3177	7.5065	0.2358	7.7423		108,462.5856	108,462.5856	5.1502		108,591.3417
Worker	18.2104	8.9570	167.2693	0.8710	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		87,008.6578	87,008.6578	0.7822		87,028.2117
Total	**24.5762**	**284.1575**	**214.0220**	**1.8962**	**163.2765**	**0.5705**	**163.8470**	**43.8941**	**0.5336**	**44.4277**		**195,471.2434**	**195,471.2434**	**5.9324**		**195,619.5534**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9703	2.7611	46.6693	0.1909	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		19,047.4543	19,047.4543	0.2663		19,054.1127
Total	**5.9703**	**2.7611**	**46.6693**	**0.1909**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**19,047.4543**	**19,047.4543**	**0.2663**		**19,054.1127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.9703	2.7611	46.6693	0.1909	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		19,047.4543	19,047.4543	0.2663		19,054.1127
Total	**5.9703**	**2.7611**	**46.6693**	**0.1909**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**19,047.4543**	**19,047.4543**	**0.2663**		**19,054.1127**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.5170	2.5401	44.0788	0.1875	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		18,711.1825	18,711.1825	0.2444		18,717.2919
Total	**5.5170**	**2.5401**	**44.0788**	**0.1875**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**18,711.1825**	**18,711.1825**	**0.2444**		**18,717.2919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.5170	2.5401	44.0788	0.1875	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		18,711.1825	18,711.1825	0.2444		18,717.2919
Total	**5.5170**	**2.5401**	**44.0788**	**0.1875**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**18,711.1825**	**18,711.1825**	**0.2444**		**18,717.2919**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.1331	2.3574	41.6407	0.1845	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		18,419.0966	18,419.0966	0.2240		18,424.6953
Total	**5.1331**	**2.3574**	**41.6407**	**0.1845**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**18,419.0966**	**18,419.0966**	**0.2240**		**18,424.6953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.1331	2.3574	41.6407	0.1845	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		18,419.0966	18,419.0966	0.2240		18,424.6953
Total	**5.1331**	**2.3574**	**41.6407**	**0.1845**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**18,419.0966**	**18,419.0966**	**0.2240**		**18,424.6953**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.8109	2.2209	39.6154	0.1820	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		18,169.8830	18,169.8830	0.2071		18,175.0608
Total	**4.8109**	**2.2209**	**39.6154**	**0.1820**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**18,169.8830**	**18,169.8830**	**0.2071**		**18,175.0608**

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3064	1.9387	4.7795	7.9200e-003		0.0198	0.0198		0.0198	0.0198		750.5281	750.5281	0.0264		751.1885
Total	**21.0367**	**1.9387**	**4.7795**	**7.9200e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**		**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.6421	1.7914	33.4539	0.1742	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		17,401.7316	17,401.7316	0.1564		17,405.6423
Total	**3.6421**	**1.7914**	**33.4539**	**0.1742**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**17,401.7316**	**17,401.7316**	**0.1564**		**17,405.6423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0264		751.1885
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.6421	1.7914	33.4539	0.1742	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		17,401.7316	17,401.7316	0.1564		17,405.6423
Total	**3.6421**	**1.7914**	**33.4539**	**0.1742**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**17,401.7316**	**17,401.7316**	**0.1564**		**17,405.6423**

3.7 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	2.4307	34.5913	0.0561		0.0748	0.0748		0.0748	0.0748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6523**	**2.4307**	**34.5913**	**0.0561**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	2.4307	34.5913	0.0561		0.0748	0.0748		0.0748	0.0748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6523**	**2.4307**	**34.5913**	**0.0561**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0271	0.4841	2.2200e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		222.0352	222.0352	2.5300e-003		222.0985
Total	**0.0588**	**0.0271**	**0.4841**	**2.2200e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**222.0352**	**222.0352**	**2.5300e-003**		**222.0985**

3.7 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0224	7.3132	31.6354	0.0561		0.2329	0.2329		0.2329	0.2329		5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1138**	**7.3132**	**31.6354**	**0.0561**		**0.2329**	**0.2329**		**0.2329**	**0.2329**		**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0219	0.4088	2.1300e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		212.6485	212.6485	1.9100e-003		212.6962
Total	**0.0445**	**0.0219**	**0.4088**	**2.1300e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**212.6485**	**212.6485**	**1.9100e-003**		**212.6962**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	2.4307	34.5913	0.0561		0.0748	0.0748		0.0748	0.0748	0.0000	5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6523**	**2.4307**	**34.5913**	**0.0561**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0445	0.0219	0.4088	2.1300e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		212.6485	212.6485	1.9100e-003		212.6962
Total	**0.0445**	**0.0219**	**0.4088**	**2.1300e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**212.6485**	**212.6485**	**1.9100e-003**		**212.6962**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Unrefrigerated Warehouse-No Rail	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Unmitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Construction - Mitigated)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Unrefrigerated Warehouse-No Rail	7,662.72	1000sqft	175.91	7,662,716.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Winter

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Unrefrigerated Warehouse - No Rail represents the sum of the proposed Warehousing and High-Cube Transload & Short-Term Warehouse uses.

Construction Phase - Construction Schedule adjusted to meet the 2040 Operational Year.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Trips and VMT - CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips were ratioed between each phase based on the number of days.

Demolition - Quantity of debis based on total existing use.

Grading - Analysis assumes that up to 20 acres will be disturbed per day.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - All equipment will be equipped with Tier 4 engines. Watering should be increased to a frequency of 4 times per day.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	700.00	260.00
tblConstructionPhase	NumDays	420.00	140.00

tblConstructionPhase	NumDays	1,085.00	420.00
tblConstructionPhase	NumDays	10,850.00	4,290.00
tblConstructionPhase	NumDays	770.00	2,340.00
tblConstructionPhase	NumDays	770.00	585.00
tblEnergyUse	LightingElect	5.44	0.00
tblEnergyUse	LightingElect	5.61	0.00
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	6.47	0.00
tblEnergyUse	T24E	4.58	0.00
tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	55.15	0.00
tblEnergyUse	T24NG	1.92	0.00
tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	2.00	0.00
tblGrading	AcresOfGrading	2,940.00	8,400.00
tblGrading	AcresOfGrading	490.00	2,800.00
tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00

tblLandUse	LandUseSquareFeet	7,662,720.00	7,662,716.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00
tblLandUse	LotAcreage	5.00	1.72
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Winter

tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	82.13	0.00
tblSolidWaste	SolidWasteGenerationRate	215.75	0.00
tblSolidWaste	SolidWasteGenerationRate	98.96	0.00
tblSolidWaste	SolidWasteGenerationRate	7,202.96	0.00
tblTripsAndVMT	VendorTripNumber	0.00	247.00
tblTripsAndVMT	VendorTripNumber	0.00	133.00
tblTripsAndVMT	VendorTripNumber	0.00	399.00
tblTripsAndVMT	VendorTripNumber	4,849.00	4,071.00
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00

tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50

tblVehicleEF	HHD	1.54	3.3270e-003
tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00

tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
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tblVehicleEF	HHD	4.96	0.03
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tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003

tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11

tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004

tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004

tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07

tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.03	0.03
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tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
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tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04

tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
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tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
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tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
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tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
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tblVehicleEF	LDT2	1.3430e-003	0.03
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tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
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tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23

tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003

tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34

tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02

tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
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tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003

tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20

tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
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tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003

tblVehicleEF	MCY	1.41	1.43
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tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78

tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95

tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06

tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003

tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26

tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
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tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	3.2000e-005	6.8000e-005
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73

tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	8.4700e-003	0.03

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tblVehicleEF	MHD	0.03	4.4460e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004

tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
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tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004

tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
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tblVehicleEF	OBUS	0.24	0.58
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tblVehicleEF	OBUS	65.01	70.70
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tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
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tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
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tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.6680e-003	1.7380e-003

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tblVehicleEF	OBUS	0.05	0.06
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tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
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tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
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tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
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tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
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tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
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tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003

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tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
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tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
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tblVehicleEF	UBUS	0.06	0.01

tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003

tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004

tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00

tblVehicleTrips	PR_TP	82.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	3,805,015.50	0.00
tblWater	IndoorWaterUseRate	15,220,421.71	0.00
tblWater	IndoorWaterUseRate	640,264,190.29	0.00
tblWater	IndoorWaterUseRate	1,772,004,000.00	0.00
tblWater	OutdoorWaterUseRate	422,779.50	0.00
tblWater	OutdoorWaterUseRate	9,328,645.57	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	21.0591	605.5581	137.8950	1.8616	555.0989	4.5313	559.6302	91.1371	4.2527	95.3898	0.0000	196,951.3213	196,951.3213	13.3834	0.0000	197,285.9056
2022	19.2147	549.1147	132.5481	1.8404	578.1071	3.8760	581.7787	96.7844	3.5680	100.2329	0.0000	194,798.4114	194,798.4114	13.1048	0.0000	195,126.0301
2023	8.7640	111.3673	63.9818	0.2464	36.2567	3.3716	39.6283	9.7650	3.1029	12.8679	0.0000	24,743.5338	24,743.5338	5.1042	0.0000	24,871.1397
2024	63.8528	358.5786	422.9241	2.1778	163.2780	3.1729	166.1705	43.8946	2.9201	46.5916	0.0000	222,806.8562	222,806.8562	10.6702	0.0000	223,073.6110
2025	60.4454	348.6495	394.9688	2.1285	163.2777	2.6199	165.8976	43.8945	2.4425	46.3370	0.0000	217,904.3276	217,904.3276	10.3977	0.0000	218,164.2698
2026	57.8160	344.3716	371.6519	2.0848	163.2774	2.5896	165.8670	43.8944	2.4144	46.3088	0.0000	213,560.3331	213,560.3331	10.1487	0.0000	213,814.0501
2027	55.2722	340.4516	351.0278	2.0465	163.2772	2.5437	165.8209	43.8944	2.3718	46.2661	0.0000	209,745.8871	209,745.8871	9.9145	0.0000	209,993.7485
2028	52.6529	337.1446	333.1032	2.0129	163.2771	2.4875	165.7646	43.8943	2.3199	46.2142	0.0000	206,412.3928	206,412.3928	9.6954	0.0000	206,654.7789
2029	49.8036	334.0257	315.8266	1.9835	163.2769	2.4349	165.7119	43.8943	2.2715	46.1657	0.0000	203,490.7652	203,490.7652	9.4870	0.0000	203,727.9403
2030	46.9141	312.4872	299.0297	1.9712	163.2768	1.3722	164.6490	43.8942	1.3133	45.2075	0.0000	202,080.3692	202,080.3692	7.7139	0.0000	202,273.2155
2031	43.9431	311.1632	285.7397	1.9527	163.2767	1.3327	164.6094	43.8942	1.2769	45.1710	0.0000	200,265.1609	200,265.1609	7.5417	0.0000	200,453.7041
2032	68.4509	313.9436	315.1772	2.1127	190.7177	1.4494	192.1671	51.1716	1.3885	52.5601	0.0000	216,218.6162	216,218.6162	7.6498	0.0000	216,409.8599
2033	65.6740	311.6384	301.9340	2.0935	190.7176	1.4062	192.1238	51.1716	1.3486	52.5202	0.0000	214,313.5225	214,313.5225	7.4923	0.0000	214,500.8307
2034	63.3636	309.6925	289.5218	2.0770	190.7175	1.3659	192.0834	51.1716	1.3115	52.4831	0.0000	212,685.5341	212,685.5341	7.3478	0.0000	212,869.2287
2035	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2036	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2037	60.9871	303.3495	278.9649	2.0630	190.7174	1.1069	191.8243	51.1715	1.0553	52.2268	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2038	65.4200	313.1300	310.9929	2.1211	191.0528	1.4827	192.5355	51.2605	1.4310	52.6915	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	65.4200	313.1300	310.9929	2.1211	191.0528	1.4827	192.5355	51.2605	1.4310	52.6915	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951
2040	57.9527	304.1372	279.3144	2.0794	191.0530	1.1300	192.1829	51.2605	1.0877	52.3482	0.0000	212,686.0012	212,686.0012	6.9974	0.0000	212,860.9367
Maximum	**68.4509**	**605.5581**	**422.9241**	**2.1778**	**578.1071**	**4.5313**	**581.7787**	**96.7844**	**4.2527**	**100.2329**	**0.0000**	**222,806.8562**	**222,806.8562**	**13.3834**	**0.0000**	**223,073.6110**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	15.8191	548.5613	140.6784	1.8616	190.5376	1.6479	192.1855	35.9392	1.5815	37.5207	0.0000	196,951.3213	196,951.3213	13.3834	0.0000	197,285.9056
2022	14.9998	503.1840	137.2568	1.8404	213.5458	1.3870	214.9328	41.5865	1.3319	42.9184	0.0000	194,798.4114	194,798.4114	13.1048	0.0000	195,126.0301
2023	2.7064	35.5944	78.6087	0.2464	11.6486	0.2652	11.9138	3.1711	0.2638	3.4349	0.0000	24,743.5338	24,743.5338	5.1042	0.0000	24,871.1397
2024	60.4937	321.2520	431.8089	2.1778	163.2780	1.2270	164.5050	43.8946	1.1490	45.0436	0.0000	222,806.8562	222,806.8562	10.6702	0.0000	223,073.6109
2025	57.4819	316.6482	404.4846	2.1285	163.2777	1.2058	164.4834	43.8945	1.1292	45.0237	0.0000	217,904.3276	217,904.3276	10.3977	0.0000	218,164.2698
2026	54.8525	312.3702	381.1677	2.0848	163.2774	1.1755	164.4529	43.8944	1.1011	44.9955	0.0000	213,560.3331	213,560.3331	10.1487	0.0000	213,814.0501
2027	52.3088	308.4502	360.5436	2.0465	163.2772	1.1295	164.4067	43.8944	1.0585	44.9529	0.0000	209,745.8871	209,745.8871	9.9145	0.0000	209,993.7485
2028	49.6894	305.1432	342.6190	2.0129	163.2771	1.0734	164.3504	43.8943	1.0067	44.9010	0.0000	206,412.3928	206,412.3928	9.6954	0.0000	206,654.7789
2029	46.8401	302.0243	325.3424	1.9835	163.2769	1.0208	164.2978	43.8943	0.9582	44.8524	0.0000	203,490.7652	203,490.7652	9.4870	0.0000	203,727.9403

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	44.0537	299.0978	309.9776	1.9712	163.2768	0.9727	164.2495	43.8942	0.9138	44.8080	0.0000	202,080.3692	202,080.3692	7.7139	0.0000	202,273.2155
2031	41.0827	297.7737	296.6876	1.9527	163.2767	0.9332	164.2099	43.8942	0.8774	44.7716	0.0000	200,265.1609	200,265.1609	7.5417	0.0000	200,453.7041
2032	65.3211	298.6141	326.2176	2.1127	190.7177	1.0064	191.7241	51.1716	0.9454	52.1170	0.0000	216,218.6162	216,218.6162	7.6498	0.0000	216,409.8599
2033	62.5442	296.3090	312.9743	2.0935	190.7176	0.9631	191.6807	51.1716	0.9056	52.0772	0.0000	214,313.5225	214,313.5225	7.4923	0.0000	214,500.8307
2034	60.2338	294.3630	300.5621	2.0770	190.7175	0.9229	191.6404	51.1716	0.8684	52.0400	0.0000	212,685.5341	212,685.5341	7.3478	0.0000	212,869.2287
2035	58.2987	292.8404	290.2847	2.0630	190.7174	0.8871	191.6046	51.1715	0.8355	52.0071	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2036	58.2987	292.8404	290.2847	2.0630	190.7174	0.8871	191.6046	51.1715	0.8355	52.0071	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2037	58.2987	292.8404	290.2847	2.0630	190.7174	0.8871	191.6046	51.1715	0.8355	52.0071	0.0000	211,309.2755	211,309.2755	7.1866	0.0000	211,488.9407
2038	61.0116	295.2994	325.2634	2.1211	191.0528	0.9630	192.0157	51.2605	0.9113	52.1717	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951
2039	61.0116	295.2994	325.2634	2.1211	191.0528	0.9630	192.0157	51.2605	0.9113	52.1717	0.0000	216,821.3630	216,821.3630	7.3933	0.0000	217,006.1951
2040	53.9845	290.9238	293.7165	2.0794	191.0530	0.8440	191.8970	51.2605	0.8017	52.0623	0.0000	212,686.0012	212,686.0012	6.9974	0.0000	212,860.9367
Maximum	**65.3211**	**548.5613**	**431.8089**	**2.1778**	**213.5458**	**1.6479**	**214.9328**	**51.2605**	**1.5815**	**52.1717**	**0.0000**	**222,806.8562**	**222,806.8562**	**13.3834**	**0.0000**	**223,073.6109**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.64**	**7.86**	**-3.66**	**0.00**	**17.98**	**51.49**	**18.30**	**11.59**	**51.24**	**13.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**	**0.0000**	**0.0107**	**0.0107**	**0.0000**	**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**	**0.0000**	**6.9095**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/30/2022	5	260	
2	Site Preparation	Site Preparation	5/31/2022	12/12/2022	5	140	
3	Grading	Grading	12/13/2022	7/22/2024	5	420	
4	Building Construction	Building Construction	7/23/2024	12/31/2040	5	4290	
5	Architectural Coating	Architectural Coating	1/13/2032	12/31/2040	5	2340	
6	Paving	Paving	10/5/2038	12/31/2040	5	585	

Acres of Grading (Site Preparation Phase): 2800

Acres of Grading (Grading Phase): 8400

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,868,040; Non-Residential Outdoor: 4,622,680; Striped Parking Area: 1,220,436 (Architectural Coating – sqft)

OffRoad Equipment

Airport Gateway Specific Plan (Construction - Mitigated) - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	5	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Site Preparation	Crawler Tractors	7	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	5	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	4	8.00	212	0.43
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Crawler Tractors	5	8.00	212	0.43
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	8.00	78	0.48
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	247.00	591,868.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	12	30.00	133.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	399.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	12,275.00	4,071.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	2,455.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	6.1010	60.7280	39.8582	0.0725		2.9983	2.9983		2.7861	2.7861		6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**6.1010**	**60.7280**	**39.8582**	**0.0725**	**492.6504**	**2.9983**	**495.6487**	**74.5917**	**2.7861**	**77.3778**		**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.1375	521.1712	91.8431	1.7223	60.5535	1.4891	62.0426	16.0069	1.4247	17.4316		182,924.4863	182,924.4863	10.9353		183,197.8695
Vendor	0.6780	23.5665	5.2429	0.0641	1.5820	0.0420	1.6239	0.4555	0.0402	0.4957		6,756.3177	6,756.3177	0.4924		6,768.6271
Worker	0.1426	0.0925	0.9508	2.7600e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		274.8194	274.8194	7.6500e-003		275.0106
Total	**14.9581**	**544.8301**	**98.0368**	**1.7891**	**62.4485**	**1.5331**	**63.9815**	**16.5454**	**1.4666**	**18.0121**		**189,955.6234**	**189,955.6234**	**11.4354**		**190,241.5072**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					128.0891	0.0000	128.0891	19.3938	0.0000	19.3938			0.0000			0.0000
Off-Road	0.8610	3.7311	42.6417	0.0725		0.1148	0.1148		0.1148	0.1148	0.0000	6,995.6979	6,995.6979	1.9480		7,044.3984
Total	**0.8610**	**3.7311**	**42.6417**	**0.0725**	**128.0891**	**0.1148**	**128.2039**	**19.3938**	**0.1148**	**19.5086**	**0.0000**	**6,995.6979**	**6,995.6979**	**1.9480**		**7,044.3984**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.1375	521.1712	91.8431	1.7223	60.5535	1.4891	62.0426	16.0069	1.4247	17.4316		182,924.4863	182,924.4863	10.9353		183,197.8695
Vendor	0.6780	23.5665	5.2429	0.0641	1.5820	0.0420	1.6239	0.4555	0.0402	0.4957		6,756.3177	6,756.3177	0.4924		6,768.6271
Worker	0.1426	0.0925	0.9508	2.7600e-003	0.3130	2.0000e-003	0.3150	0.0830	1.8400e-003	0.0849		274.8194	274.8194	7.6500e-003		275.0106
Total	**14.9581**	**544.8301**	**98.0368**	**1.7891**	**62.4485**	**1.5331**	**63.9815**	**16.5454**	**1.4666**	**18.0121**		**189,955.6234**	**189,955.6234**	**11.4354**		**190,241.5072**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					492.6504	0.0000	492.6504	74.5917	0.0000	74.5917			0.0000			0.0000
Off-Road	5.0759	49.6618	37.9330	0.0725		2.3994	2.3994		2.2315	2.2315		6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**5.0759**	**49.6618**	**37.9330**	**0.0725**	**492.6504**	**2.3994**	**495.0498**	**74.5917**	**2.2315**	**76.8232**		**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.3729	477.0443	88.8759	1.7018	83.5618	1.2349	84.7967	21.6542	1.1815	22.8357		180,839.9140	180,839.9140	10.6787		181,106.8808
Vendor	0.6324	22.3255	4.8672	0.0635	1.5819	0.0353	1.6173	0.4555	0.0338	0.4893		6,700.0294	6,700.0294	0.4761		6,711.9309
Worker	0.1335	0.0831	0.8720	2.6600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		264.9209	264.9209	6.8700e-003		265.0925
Total	**14.1388**	**499.4529**	**94.6151**	**1.7680**	**85.4567**	**1.2722**	**86.7289**	**22.1927**	**1.2171**	**23.4098**		**187,804.8643**	**187,804.8643**	**11.1616**		**188,083.9042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					128.0891	0.0000	128.0891	19.3938	0.0000	19.3938			0.0000			0.0000
Off-Road	0.8610	3.7311	42.6417	0.0725		0.1148	0.1148		0.1148	0.1148	0.0000	6,993.5471	6,993.5471	1.9432		7,042.1259
Total	**0.8610**	**3.7311**	**42.6417**	**0.0725**	**128.0891**	**0.1148**	**128.2039**	**19.3938**	**0.1148**	**19.5086**	**0.0000**	**6,993.5471**	**6,993.5471**	**1.9432**		**7,042.1259**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.3729	477.0443	88.8759	1.7018	83.5618	1.2349	84.7967	21.6542	1.1815	22.8357		180,839.9140	180,839.9140	10.6787		181,106.8808
Vendor	0.6324	22.3255	4.8672	0.0635	1.5819	0.0353	1.6173	0.4555	0.0338	0.4893		6,700.0294	6,700.0294	0.4761		6,711.9309
Worker	0.1335	0.0831	0.8720	2.6600e-003	0.3130	1.9400e-003	0.3149	0.0830	1.7900e-003	0.0848		264.9209	264.9209	6.8700e-003		265.0925
Total	**14.1388**	**499.4529**	**94.6151**	**1.7680**	**85.4567**	**1.2722**	**86.7289**	**22.1927**	**1.2171**	**23.4098**		**187,804.8643**	**187,804.8643**	**11.1616**		**188,083.9042**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					51.3204	0.0000	51.3204	18.8413	0.0000	18.8413			0.0000			0.0000
Off-Road	7.6289	86.0232	34.1137	0.0975		3.6738	3.6738		3.3799	3.3799		9,448.4033	9,448.4033	3.0558		9,524.7984
Total	**7.6289**	**86.0232**	**34.1137**	**0.0975**	**51.3204**	**3.6738**	**54.9943**	**18.8413**	**3.3799**	**22.2212**		**9,448.4033**	**9,448.4033**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3405	12.0214	2.6208	0.0342	0.8518	0.0190	0.8708	0.2453	0.0182	0.2635		3,607.7082	3,607.7082	0.2563		3,614.1166
Worker	0.1430	0.0891	0.9343	2.8500e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		283.8438	283.8438	7.3600e-003		284.0277
Total	**0.4836**	**12.1105**	**3.5551**	**0.0370**	**1.1871**	**0.0211**	**1.2082**	**0.3342**	**0.0201**	**0.3543**		**3,891.5520**	**3,891.5520**	**0.2637**		**3,898.1443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.3433	0.0000	13.3433	4.8987	0.0000	4.8987			0.0000			0.0000
Off-Road	1.1980	5.1915	43.9278	0.0975		0.1597	0.1597		0.1597	0.1597	0.0000	9,448.4032	9,448.4032	3.0558		9,524.7984
Total	**1.1980**	**5.1915**	**43.9278**	**0.0975**	**13.3433**	**0.1597**	**13.5031**	**4.8987**	**0.1597**	**5.0585**	**0.0000**	**9,448.4032**	**9,448.4032**	**3.0558**		**9,524.7984**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3405	12.0214	2.6208	0.0342	0.8518	0.0190	0.8708	0.2453	0.0182	0.2635		3,607.7082	3,607.7082	0.2563		3,614.1166
Worker	0.1430	0.0891	0.9343	2.8500e-003	0.3353	2.0800e-003	0.3374	0.0889	1.9200e-003	0.0909		283.8438	283.8438	7.3600e-003		284.0277
Total	**0.4836**	**12.1105**	**3.5551**	**0.0370**	**1.1871**	**0.0211**	**1.2082**	**0.3342**	**0.0201**	**0.3543**		**3,891.5520**	**3,891.5520**	**0.2637**		**3,898.1443**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	8.5585	95.0158	58.3905	0.1431		3.8162	3.8162		3.5109	3.5109		13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**8.5585**	**95.0158**	**58.3905**	**0.1431**	**33.2542**	**3.8162**	**37.0703**	**8.9106**	**3.5109**	**12.4215**		**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0216	36.0642	7.8624	0.1026	2.5554	0.0571	2.6125	0.7358	0.0546	0.7904		10,823.1245	10,823.1245	0.7690		10,842.3499
Worker	0.1907	0.1188	1.2457	3.8000e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		378.4584	378.4584	9.8100e-003		378.7036
Total	**1.2123**	**36.1830**	**9.1081**	**0.1064**	**3.0026**	**0.0598**	**3.0624**	**0.8544**	**0.0571**	**0.9115**		**11,201.5829**	**11,201.5829**	**0.7788**		**11,221.0535**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6461	0.0000	8.6461	2.3168	0.0000	2.3168			0.0000			0.0000
Off-Road	1.7571	7.6139	70.7786	0.1431		0.2343	0.2343		0.2343	0.2343	0.0000	13,853.9947	13,853.9947	4.4807		13,966.0113
Total	**1.7571**	**7.6139**	**70.7786**	**0.1431**	**8.6461**	**0.2343**	**8.8804**	**2.3168**	**0.2343**	**2.5510**	**0.0000**	**13,853.9947**	**13,853.9947**	**4.4807**		**13,966.0113**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0216	36.0642	7.8624	0.1026	2.5554	0.0571	2.6125	0.7358	0.0546	0.7904		10,823.1245	10,823.1245	0.7690		10,842.3499
Worker	0.1907	0.1188	1.2457	3.8000e-003	0.4471	2.7800e-003	0.4499	0.1186	2.5600e-003	0.1211		378.4584	378.4584	9.8100e-003		378.7036
Total	**1.2123**	**36.1830**	**9.1081**	**0.1064**	**3.0026**	**0.0598**	**3.0624**	**0.8544**	**0.0571**	**0.9115**		**11,201.5829**	**11,201.5829**	**0.7788**		**11,221.0535**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.8147	83.3868	56.1517	0.1430		3.3407	3.3407		3.0734	3.0734		13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**7.8147**	**83.3868**	**56.1517**	**0.1430**	**33.2542**	**3.3407**	**36.5949**	**8.9106**	**3.0734**	**11.9841**		**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7704	27.8737	6.6881	0.0997	2.5554	0.0283	2.5837	0.7358	0.0270	0.7628		10,529.5441	10,529.5441	0.6162		10,544.9481
Worker	0.1789	0.1069	1.1420	3.6500e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		364.2534	364.2534	8.7900e-003		364.4731
Total	**0.9493**	**27.9805**	**7.8301**	**0.1034**	**3.0025**	**0.0310**	**3.0335**	**0.8544**	**0.0295**	**0.8839**		**10,893.7974**	**10,893.7974**	**0.6250**		**10,909.4212**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6461	0.0000	8.6461	2.3168	0.0000	2.3168			0.0000			0.0000
Off-Road	1.7571	7.6139	70.7786	0.1430		0.2343	0.2343		0.2343	0.2343	0.0000	13,849.7364	13,849.7364	4.4793		13,961.7185
Total	**1.7571**	**7.6139**	**70.7786**	**0.1430**	**8.6461**	**0.2343**	**8.8804**	**2.3168**	**0.2343**	**2.5510**	**0.0000**	**13,849.7364**	**13,849.7364**	**4.4793**		**13,961.7185**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7704	27.8737	6.6881	0.0997	2.5554	0.0283	2.5837	0.7358	0.0270	0.7628		10,529.5441	10,529.5441	0.6162		10,544.9481
Worker	0.1789	0.1069	1.1420	3.6500e-003	0.4471	2.7000e-003	0.4498	0.1186	2.4900e-003	0.1211		364.2534	364.2534	8.7900e-003		364.4731
Total	**0.9493**	**27.9805**	**7.8301**	**0.1034**	**3.0025**	**0.0310**	**3.0335**	**0.8544**	**0.0295**	**0.8839**		**10,893.7974**	**10,893.7974**	**0.6250**		**10,909.4212**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					33.2542	0.0000	33.2542	8.9106	0.0000	8.9106			0.0000			0.0000
Off-Road	7.5569	77.9533	55.3134	0.1430		3.1422	3.1422		2.8908	2.8908		13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**7.5569**	**77.9533**	**55.3134**	**0.1430**	**33.2542**	**3.1422**	**36.3964**	**8.9106**	**2.8908**	**11.8014**		**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7592	28.0172	6.4469	0.0996	2.5554	0.0281	2.5835	0.7358	0.0269	0.7626		10,520.2560	10,520.2560	0.6161		10,535.6582
Worker	0.1688	0.0968	1.0631	3.5300e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		352.4450	352.4450	8.0300e-003		352.6457
Total	**0.9280**	**28.1140**	**7.5100**	**0.1032**	**3.0025**	**0.0308**	**3.0332**	**0.8543**	**0.0293**	**0.8837**		**10,872.7010**	**10,872.7010**	**0.6241**		**10,888.3039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6461	0.0000	8.6461	2.3168	0.0000	2.3168			0.0000			0.0000
Off-Road	1.7571	7.6139	70.7786	0.1430		0.2343	0.2343		0.2343	0.2343	0.0000	13,847.0340	13,847.0340	4.4784		13,958.9943
Total	**1.7571**	**7.6139**	**70.7786**	**0.1430**	**8.6461**	**0.2343**	**8.8804**	**2.3168**	**0.2343**	**2.5510**	**0.0000**	**13,847.0340**	**13,847.0340**	**4.4784**		**13,958.9943**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7592	28.0172	6.4469	0.0996	2.5554	0.0281	2.5835	0.7358	0.0269	0.7626		10,520.2560	10,520.2560	0.6161		10,535.6582
Worker	0.1688	0.0968	1.0631	3.5300e-003	0.4471	2.6800e-003	0.4498	0.1186	2.4600e-003	0.1210		352.4450	352.4450	8.0300e-003		352.6457
Total	**0.9280**	**28.1140**	**7.5100**	**0.1032**	**3.0025**	**0.0308**	**3.0332**	**0.8543**	**0.0293**	**0.8837**		**10,872.7010**	**10,872.7010**	**0.6241**		**10,888.3039**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2966	43.0173	30.9138	0.0766		1.7847	1.7847		1.6672	1.6672		7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**4.2966**	**43.0173**	**30.9138**	**0.0766**		**1.7847**	**1.7847**		**1.6672**	**1.6672**		**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7459	285.8598	65.7777	1.0164	26.0724	0.2866	26.3590	7.5071	0.2740	7.7810		107,338.2508	107,338.2508	6.2859		107,495.3994
Worker	51.8103	29.7015	326.2326	1.0848	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		108,156.5574	108,156.5574	2.4638		108,218.1527
Total	**59.5562**	**315.5613**	**392.0103**	**2.1012**	**163.2780**	**1.1078**	**164.3858**	**43.8946**	**1.0298**	**44.9244**		**215,494.8082**	**215,494.8082**	**8.7498**		**215,713.5521**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,312.0480	7,312.0480	1.9204		7,360.0589
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,312.0480**	**7,312.0480**	**1.9204**		**7,360.0589**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7459	285.8598	65.7777	1.0164	26.0724	0.2866	26.3590	7.5071	0.2740	7.7810		107,338.2508	107,338.2508	6.2859		107,495.3994
Worker	51.8103	29.7015	326.2326	1.0848	137.2056	0.8212	138.0268	36.3876	0.7558	37.1434		108,156.5574	108,156.5574	2.4638		108,218.1527
Total	**59.5562**	**315.5613**	**392.0103**	**2.1012**	**163.2780**	**1.1078**	**164.3858**	**43.8946**	**1.0298**	**44.9244**		**215,494.8082**	**215,494.8082**	**8.7498**		**215,713.5521**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.5453	283.9748	63.3106	1.0104	26.0721	0.2822	26.3543	7.5070	0.2698	7.7767		106,730.8243	106,730.8243	6.2568		106,887.2449
Worker	48.9992	26.9827	301.3754	1.0415	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		103,863.3299	103,863.3299	2.2283		103,919.0384
Total	**56.5445**	**310.9575**	**364.6860**	**2.0519**	**163.2777**	**1.0866**	**164.3643**	**43.8945**	**1.0100**	**44.9046**		**210,594.1542**	**210,594.1542**	**8.4852**		**210,806.2833**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.5453	283.9748	63.3106	1.0104	26.0721	0.2822	26.3543	7.5070	0.2698	7.7767		106,730.8243	106,730.8243	6.2568		106,887.2449
Worker	48.9992	26.9827	301.3754	1.0415	137.2056	0.8044	138.0099	36.3876	0.7403	37.1278		103,863.3299	103,863.3299	2.2283		103,919.0384
Total	**56.5445**	**310.9575**	**364.6860**	**2.0519**	**163.2777**	**1.0866**	**164.3643**	**43.8945**	**1.0100**	**44.9046**		**210,594.1542**	**210,594.1542**	**8.4852**		**210,806.2833**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3756	282.0055	61.4120	1.0047	26.0718	0.2779	26.3497	7.5069	0.2656	7.7725		106,152.8156	106,152.8156	6.2106		106,308.0806
Worker	46.5394	24.6740	279.9572	1.0036	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		100,097.3441	100,097.3441	2.0256		100,147.9831
Total	**53.9150**	**306.6795**	**341.3691**	**2.0082**	**163.2774**	**1.0563**	**164.3337**	**43.8944**	**0.9819**	**44.8764**		**206,250.1597**	**206,250.1597**	**8.2362**		**206,456.0637**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3756	282.0055	61.4120	1.0047	26.0718	0.2779	26.3497	7.5069	0.2656	7.7725		106,152.8156	106,152.8156	6.2106		106,308.0806
Worker	46.5394	24.6740	279.9572	1.0036	137.2056	0.7784	137.9840	36.3876	0.7163	37.1039		100,097.3441	100,097.3441	2.0256		100,147.9831
Total	**53.9150**	**306.6795**	**341.3691**	**2.0082**	**163.2774**	**1.0563**	**164.3337**	**43.8944**	**0.9819**	**44.8764**		**206,250.1597**	**206,250.1597**	**8.2362**		**206,456.0637**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2332	280.1550	59.8355	0.9998	26.0716	0.2733	26.3449	7.5068	0.2612	7.7680		105,662.9522	105,662.9522	6.1573		105,816.8842
Worker	44.1380	22.6045	260.9095	0.9701	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		96,772.7615	96,772.7615	1.8447		96,818.8779
Total	**51.3713**	**302.7595**	**320.7450**	**1.9698**	**163.2772**	**1.0104**	**164.2876**	**43.8944**	**0.9394**	**44.8337**		**202,435.7137**	**202,435.7137**	**8.0019**		**202,635.7621**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2332	280.1550	59.8355	0.9998	26.0716	0.2733	26.3449	7.5068	0.2612	7.7680		105,662.9522	105,662.9522	6.1573		105,816.8842
Worker	44.1380	22.6045	260.9095	0.9701	137.2056	0.7371	137.9427	36.3876	0.6781	37.0657		96,772.7615	96,772.7615	1.8447		96,818.8779
Total	**51.3713**	**302.7595**	**320.7450**	**1.9698**	**163.2772**	**1.0104**	**164.2876**	**43.8944**	**0.9394**	**44.8337**		**202,435.7137**	**202,435.7137**	**8.0019**		**202,635.7621**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1152	278.7024	58.6028	0.9957	26.0715	0.2703	26.3418	7.5067	0.2583	7.7651		105,248.7328	105,248.7328	6.0945		105,401.0957
Worker	41.6367	20.7501	244.2176	0.9406	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		93,853.4866	93,853.4866	1.6884		93,895.6967
Total	**48.7519**	**299.4525**	**302.8204**	**1.9363**	**163.2771**	**0.9542**	**164.2313**	**43.8943**	**0.8875**	**44.7818**		**199,102.2194**	**199,102.2194**	**7.7829**		**199,296.7924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1152	278.7024	58.6028	0.9957	26.0715	0.2703	26.3418	7.5067	0.2583	7.7651		105,248.7328	105,248.7328	6.0945		105,401.0957
Worker	41.6367	20.7501	244.2176	0.9406	137.2056	0.6839	137.8895	36.3876	0.6292	37.0168		93,853.4866	93,853.4866	1.6884		93,895.6967
Total	**48.7519**	**299.4525**	**302.8204**	**1.9363**	**163.2771**	**0.9542**	**164.2313**	**43.8943**	**0.8875**	**44.7818**		**199,102.2194**	**199,102.2194**	**7.7829**		**199,296.7924**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9010	37.6921	30.2828	0.0766		1.5333	1.5333		1.4324	1.4324		7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**3.9010**	**37.6921**	**30.2828**	**0.0766**		**1.5333**	**1.5333**		**1.4324**	**1.4324**		**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0123	277.3439	57.4860	0.9922	26.0714	0.2670	26.3384	7.5067	0.2552	7.7619		104,899.5643	104,899.5643	6.0368		105,050.4843
Worker	38.8904	18.9898	228.0579	0.9147	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		91,281.0276	91,281.0276	1.5377		91,319.4696
Total	**45.9026**	**296.3336**	**285.5438**	**1.9069**	**163.2769**	**0.9017**	**164.1786**	**43.8943**	**0.8390**	**44.7333**		**196,180.5919**	**196,180.5919**	**7.5745**		**196,369.9539**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0766		0.1192	0.1192		0.1192	0.1192	0.0000	7,310.1733	7,310.1733	1.9125		7,357.9864
Total	**0.9375**	**5.6907**	**39.7986**	**0.0766**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**7,310.1733**	**7,310.1733**	**1.9125**		**7,357.9864**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0123	277.3439	57.4860	0.9922	26.0714	0.2670	26.3384	7.5067	0.2552	7.7619		104,899.5643	104,899.5643	6.0368		105,050.4843
Worker	38.8904	18.9898	228.0579	0.9147	137.2056	0.6346	137.8402	36.3876	0.5838	36.9714		91,281.0276	91,281.0276	1.5377		91,319.4696
Total	**45.9026**	**296.3336**	**285.5438**	**1.9069**	**163.2769**	**0.9017**	**164.1786**	**43.8943**	**0.8390**	**44.7333**		**196,180.5919**	**196,180.5919**	**7.5745**		**196,369.9539**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9299	276.0385	56.6867	0.9892	26.0713	0.2638	26.3350	7.5066	0.2521	7.7588		104,600.5103	104,600.5103	5.9756		104,749.9006
Worker	36.1864	17.3686	213.4923	0.8918	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		89,015.3690	89,015.3690	1.4026		89,050.4328
Total	**43.1163**	**293.4071**	**270.1791**	**1.8811**	**163.2768**	**0.8536**	**164.1304**	**43.8942**	**0.7946**	**44.6888**		**193,615.8793**	**193,615.8793**	**7.3782**		**193,800.3334**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9299	276.0385	56.6867	0.9892	26.0713	0.2638	26.3350	7.5066	0.2521	7.7588		104,600.5103	104,600.5103	5.9756		104,749.9006
Worker	36.1864	17.3686	213.4923	0.8918	137.2056	0.5898	137.7953	36.3876	0.5425	36.9301		89,015.3690	89,015.3690	1.4026		89,050.4328
Total	**43.1163**	**293.4071**	**270.1791**	**1.8811**	**163.2768**	**0.8536**	**164.1304**	**43.8942**	**0.7946**	**44.6888**		**193,615.8793**	**193,615.8793**	**7.3782**		**193,800.3334**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9287	276.3025	56.4755	0.9896	26.0711	0.2621	26.3332	7.5066	0.2505	7.7571		104,648.5596	104,648.5596	5.9257		104,796.7022
Worker	33.2165	15.7805	200.4136	0.8730	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		87,152.1113	87,152.1113	1.2803		87,184.1198
Total	**40.1452**	**292.0831**	**256.8891**	**1.8626**	**163.2767**	**0.8141**	**164.0908**	**43.8942**	**0.7582**	**44.6524**		**191,800.6709**	**191,800.6709**	**7.2060**		**191,980.8220**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.9287	276.3025	56.4755	0.9896	26.0711	0.2621	26.3332	7.5066	0.2505	7.7571		104,648.5596	104,648.5596	5.9257		104,796.7022
Worker	33.2165	15.7805	200.4136	0.8730	137.2056	0.5520	137.7576	36.3876	0.5077	36.8953		87,152.1113	87,152.1113	1.2803		87,184.1198
Total	**40.1452**	**292.0831**	**256.8891**	**1.8626**	**163.2767**	**0.8141**	**164.0908**	**43.8942**	**0.7582**	**44.6524**		**191,800.6709**	**191,800.6709**	**7.2060**		**191,980.8220**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8846	275.2854	56.0951	0.9883	26.0710	0.2599	26.3309	7.5065	0.2484	7.7550		104,516.6357	104,516.6357	5.8839		104,663.7330
Worker	30.5745	14.4122	187.8645	0.8554	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		85,405.8021	85,405.8021	1.1665		85,434.9644
Total	**37.4591**	**289.6976**	**243.9597**	**1.8436**	**163.2766**	**0.7739**	**164.0504**	**43.8941**	**0.7211**	**44.6153**		**189,922.4378**	**189,922.4378**	**7.0504**		**190,098.6974**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8846	275.2854	56.0951	0.9883	26.0710	0.2599	26.3309	7.5065	0.2484	7.7550		104,516.6357	104,516.6357	5.8839		104,663.7330
Worker	30.5745	14.4122	187.8645	0.8554	137.2056	0.5139	137.7195	36.3876	0.4727	36.8603		85,405.8021	85,405.8021	1.1665		85,434.9644
Total	**37.4591**	**289.6976**	**243.9597**	**1.8436**	**163.2766**	**0.7739**	**164.0504**	**43.8941**	**0.7211**	**44.6153**		**189,922.4378**	**189,922.4378**	**7.0504**		**190,098.6974**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8562	274.3794	55.8262	0.9874	26.0709	0.2579	26.3288	7.5065	0.2465	7.7530		104,432.5685	104,432.5685	5.8438		104,578.6638
Worker	28.2842	13.2463	177.0526	0.8400	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		83,888.2799	83,888.2799	1.0687		83,914.9978
Total	**35.1403**	**287.6257**	**232.8788**	**1.8274**	**163.2765**	**0.7375**	**164.0140**	**43.8941**	**0.6876**	**44.5817**		**188,320.8485**	**188,320.8485**	**6.9125**		**188,493.6615**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8562	274.3794	55.8262	0.9874	26.0709	0.2579	26.3288	7.5065	0.2465	7.7530		104,432.5685	104,432.5685	5.8438		104,578.6638
Worker	28.2842	13.2463	177.0526	0.8400	137.2056	0.4796	137.6851	36.3876	0.4411	36.8287		83,888.2799	83,888.2799	1.0687		83,914.9978
Total	**35.1403**	**287.6257**	**232.8788**	**1.8274**	**163.2765**	**0.7375**	**164.0140**	**43.8941**	**0.6876**	**44.5817**		**188,320.8485**	**188,320.8485**	**6.9125**		**188,493.6615**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7979	19.0801	28.8506	0.0901		0.5186	0.5186		0.5186	0.5186		8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**3.7979**	**19.0801**	**28.8506**	**0.0901**		**0.5186**	**0.5186**		**0.5186**	**0.5186**		**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8322	273.5861	55.5917	0.9869	26.0708	0.2559	26.3267	7.5065	0.2445	7.7510		104,386.2199	104,386.2199	5.8082		104,531.4255
Worker	26.3787	12.2858	166.9046	0.8267	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		82,570.2468	82,570.2468	0.9779		82,594.6946
Total	**33.2110**	**285.8718**	**222.4963**	**1.8136**	**163.2764**	**0.7036**	**163.9800**	**43.8941**	**0.6564**	**44.5504**		**186,956.4667**	**186,956.4667**	**6.7861**		**187,126.1202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.3357		8,472.8821
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.3357**		**8,472.8821**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8322	273.5861	55.5917	0.9869	26.0708	0.2559	26.3267	7.5065	0.2445	7.7510		104,386.2199	104,386.2199	5.8082		104,531.4255
Worker	26.3787	12.2858	166.9046	0.8267	137.2056	0.4477	137.6533	36.3876	0.4118	36.7994		82,570.2468	82,570.2468	0.9779		82,594.6946
Total	**33.2110**	**285.8718**	**222.4963**	**1.8136**	**163.2764**	**0.7036**	**163.9800**	**43.8941**	**0.6564**	**44.5504**		**186,956.4667**	**186,956.4667**	**6.7861**		**187,126.1202**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3908	14.5225	28.5805	0.0901		0.3231	0.3231		0.3231	0.3231		8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**3.3908**	**14.5225**	**28.5805**	**0.0901**		**0.3231**	**0.3231**		**0.3231**	**0.3231**		**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4899	8,464.4899	0.2980		8,471.9391
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4899**	**8,464.4899**	**0.2980**		**8,471.9391**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8126	272.9232	55.4026	0.9866	26.0708	0.2541	26.3248	7.5065	0.2428	7.7493		104,358.7382	104,358.7382	5.7772		104,503.1670
Worker	24.7825	11.5693	158.4976	0.8154	137.2056	0.4195	137.6250	36.3876	0.3858	36.7734		81,446.2660	81,446.2660	0.9031		81,468.8442
Total	**31.5952**	**284.4925**	**213.9002**	**1.8019**	**163.2763**	**0.6735**	**163.9498**	**43.8940**	**0.6286**	**44.5227**		**185,805.0042**	**185,805.0042**	**6.6803**		**185,972.0112**

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2170	12.4263	28.4594	0.0901		0.2378	0.2378		0.2378	0.2378		8,464.4907	8,464.4907	0.2854		8,471.6250
Total	**3.2170**	**12.4263**	**28.4594**	**0.0901**		**0.2378**	**0.2378**		**0.2378**	**0.2378**		**8,464.4907**	**8,464.4907**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7718	271.2556	54.6205	0.9869	26.0710	0.2502	26.3212	7.5065	0.2391	7.7456		104,386.8278	104,386.8278	5.6922		104,529.1322
Worker	18.9725	9.3173	132.9124	0.7804	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		77,983.7745	77,983.7745	0.6777		78,000.7168
Total	**25.7443**	**280.5728**	**187.5329**	**1.7673**	**163.2765**	**0.5740**	**163.8505**	**43.8941**	**0.5369**	**44.4310**		**182,370.6023**	**182,370.6023**	**6.3699**		**182,529.8490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9375	5.6907	39.7986	0.0901		0.1192	0.1192		0.1192	0.1192	0.0000	8,464.4906	8,464.4906	0.2854		8,471.6250
Total	**0.9375**	**5.6907**	**39.7986**	**0.0901**		**0.1192**	**0.1192**		**0.1192**	**0.1192**	**0.0000**	**8,464.4906**	**8,464.4906**	**0.2854**		**8,471.6250**

3.5 Building Construction - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.7718	271.2556	54.6205	0.9869	26.0710	0.2502	26.3212	7.5065	0.2391	7.7456		104,386.8278	104,386.8278	5.6922		104,529.1322
Worker	18.9725	9.3173	132.9124	0.7804	137.2056	0.3238	137.5293	36.3876	0.2978	36.6854		77,983.7745	77,983.7745	0.6777		78,000.7168
Total	**25.7443**	**280.5728**	**187.5329**	**1.7673**	**163.2765**	**0.5740**	**163.8505**	**43.8941**	**0.5369**	**44.4310**		**182,370.6023**	**182,370.6023**	**6.3699**		**182,529.8490**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.1149	2.8824	37.5729	0.1711	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		17,081.1604	17,081.1604	0.2333		17,086.9929
Total	**6.1149**	**2.8824**	**37.5729**	**0.1711**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**17,081.1604**	**17,081.1604**	**0.2333**		**17,086.9929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.1149	2.8824	37.5729	0.1711	27.4411	0.1028	27.5439	7.2775	0.0945	7.3721		17,081.1604	17,081.1604	0.2333		17,086.9929
Total	**6.1149**	**2.8824**	**37.5729**	**0.1711**	**27.4411**	**0.1028**	**27.5439**	**7.2775**	**0.0945**	**7.3721**		**17,081.1604**	**17,081.1604**	**0.2333**		**17,086.9929**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.6568	2.6493	35.4105	0.1680	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		16,777.6560	16,777.6560	0.2137		16,782.9996
Total	**5.6568**	**2.6493**	**35.4105**	**0.1680**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**16,777.6560**	**16,777.6560**	**0.2137**		**16,782.9996**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.6568	2.6493	35.4105	0.1680	27.4411	0.0959	27.5370	7.2775	0.0882	7.3657		16,777.6560	16,777.6560	0.2137		16,782.9996
Total	**5.6568**	**2.6493**	**35.4105**	**0.1680**	**27.4411**	**0.0959**	**27.5370**	**7.2775**	**0.0882**	**7.3657**		**16,777.6560**	**16,777.6560**	**0.2137**		**16,782.9996**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3487	2.2834	4.7940	7.9200e-003		0.0542	0.0542		0.0542	0.0542		750.5281	750.5281	0.0304		751.2875
Total	**21.0790**	**2.2834**	**4.7940**	**7.9200e-003**		**0.0542**	**0.0542**		**0.0542**	**0.0542**		**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2758	2.4572	33.3809	0.1653	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		16,514.0494	16,514.0494	0.1956		16,518.9389
Total	**5.2758**	**2.4572**	**33.3809**	**0.1653**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**16,514.0494**	**16,514.0494**	**0.1956**		**16,518.9389**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0304		751.2875
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0304**		**751.2875**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.2758	2.4572	33.3809	0.1653	27.4411	0.0896	27.5307	7.2775	0.0824	7.3599		16,514.0494	16,514.0494	0.1956		16,518.9389
Total	**5.2758**	**2.4572**	**33.3809**	**0.1653**	**27.4411**	**0.0896**	**27.5307**	**7.2775**	**0.0824**	**7.3599**		**16,514.0494**	**16,514.0494**	**0.1956**		**16,518.9389**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3143	2.0206	4.7847	7.9200e-003		0.0264	0.0264		0.0264	0.0264		750.5281	750.5281	0.0277		751.2215
Total	**21.0447**	**2.0206**	**4.7847**	**7.9200e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**		**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0277		751.2215
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0277**		**751.2215**

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.9565	2.3139	31.6995	0.1631	27.4411	0.0839	27.5250	7.2775	0.0772	7.3547		16,289.2532	16,289.2532	0.1806		16,293.7688
Total	**4.9565**	**2.3139**	**31.6995**	**0.1631**	**27.4411**	**0.0839**	**27.5250**	**7.2775**	**0.0772**	**7.3547**		**16,289.2532**	**16,289.2532**	**0.1806**		**16,293.7688**

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3064	1.9387	4.7795	7.9200e-003		0.0198	0.0198		0.0198	0.0198		750.5281	750.5281	0.0264		751.1885
Total	**21.0367**	**1.9387**	**4.7795**	**7.9200e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**		**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7945	1.8635	26.5825	0.1561	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		15,596.7549	15,596.7549	0.1355		15,600.1434
Total	**3.7945**	**1.8635**	**26.5825**	**0.1561**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**15,596.7549**	**15,596.7549**	**0.1355**		**15,600.1434**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.7303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0792	0.3434	4.8864	7.9200e-003		0.0106	0.0106		0.0106	0.0106	0.0000	750.5281	750.5281	0.0264		751.1885
Total	**20.8096**	**0.3434**	**4.8864**	**7.9200e-003**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**750.5281**	**750.5281**	**0.0264**		**751.1885**

3.6 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7945	1.8635	26.5825	0.1561	27.4411	0.0648	27.5059	7.2775	0.0596	7.3371		15,596.7549	15,596.7549	0.1355		15,600.1434
Total	**3.7945**	**1.8635**	**26.5825**	**0.1561**	**27.4411**	**0.0648**	**27.5059**	**7.2775**	**0.0596**	**7.3371**		**15,596.7549**	**15,596.7549**	**0.1355**		**15,600.1434**

3.7 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	2.4307	34.5913	0.0561		0.0748	0.0748		0.0748	0.0748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6523**	**2.4307**	**34.5913**	**0.0561**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2810	9.7523	31.6406	0.0561		0.3748	0.3748		0.3748	0.3748		5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.3724**	**9.7523**	**31.6406**	**0.0561**		**0.3748**	**0.3748**		**0.3748**	**0.3748**		**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	2.4307	34.5913	0.0561		0.0748	0.0748		0.0748	0.0748	0.0000	5,313.0335	5,313.0335	0.2045		5,318.1453
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6523**	**2.4307**	**34.5913**	**0.0561**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.2045**		**5,318.1453**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0283	0.3874	1.9900e-003	0.3353	1.0300e-003	0.3364	0.0889	9.4000e-004	0.0899		199.0540	199.0540	2.2100e-003		199.1092
Total	**0.0606**	**0.0283**	**0.3874**	**1.9900e-003**	**0.3353**	**1.0300e-003**	**0.3364**	**0.0889**	**9.4000e-004**	**0.0899**		**199.0540**	**199.0540**	**2.2100e-003**		**199.1092**

3.7 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0224	7.3132	31.6354	0.0561		0.2329	0.2329		0.2329	0.2329		5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1138**	**7.3132**	**31.6354**	**0.0561**		**0.2329**	**0.2329**		**0.2329**	**0.2329**		**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0228	0.3248	1.9100e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		190.5917	190.5917	1.6600e-003		190.6331
Total	**0.0464**	**0.0228**	**0.3248**	**1.9100e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**190.5917**	**190.5917**	**1.6600e-003**		**190.6331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	2.4307	34.5913	0.0561		0.0748	0.0748		0.0748	0.0748	0.0000	5,313.0335	5,313.0335	0.1786		5,317.4977
Paving	2.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6523**	**2.4307**	**34.5913**	**0.0561**		**0.0748**	**0.0748**		**0.0748**	**0.0748**	**0.0000**	**5,313.0335**	**5,313.0335**	**0.1786**		**5,317.4977**

3.7 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0228	0.3248	1.9100e-003	0.3353	7.9000e-004	0.3361	0.0889	7.3000e-004	0.0897		190.5917	190.5917	1.6600e-003		190.6331
Total	**0.0464**	**0.0228**	**0.3248**	**1.9100e-003**	**0.3353**	**7.9000e-004**	**0.3361**	**0.0889**	**7.3000e-004**	**0.0897**		**190.5917**	**190.5917**	**1.6600e-003**		**190.6331**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Unrefrigerated Warehouse-No Rail	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Unmitigated	215.5686	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	25.0305					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	190.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2753	0.0270	3.0090	2.3000e-004		0.0107	0.0107		0.0107	0.0107		6.4914	6.4914	0.0167		6.9095
Total	**215.5686**	**0.0270**	**3.0090**	**2.3000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**6.4914**	**6.4914**	**0.0167**		**6.9095**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.4:

CALEEMOD EXISTING EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (Existing Operations)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	75.00	Student	0.07	3,000.00	0
General Light Industry	565.76	1000sqft	88.81	565,759.00	0
User Defined Industrial	565.76	User Defined Unit	0.00	565,759.00	0
Other Asphalt Surfaces	209.89	Acre	209.89	9,142,808.40	0
Apartments Low Rise	240.00	Dwelling Unit	16.16	703,929.60	781
Mobile Home Park	194.00	Dwelling Unit	1.30	56,628.00	631
Single Family Housing	515.00	Dwelling Unit	117.18	5,104,360.80	1674
Regional Shopping Center	245.03	1000sqft	27.24	245,029.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Summer

Project Characteristics -

Land Use - Total Existing Area is 460.65 acres. Truck trips generated by the General Light Industrial use will be modeled under the User Defined Industrial land use category.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	500.00	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003

tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	4,239.21	3,000.00
tblLandUse	LandUseSquareFeet	0.00	565,759.00
tblLandUse	LandUseSquareFeet	240,000.00	703,929.60
tblLandUse	LandUseSquareFeet	232,800.00	56,628.00
tblLandUse	LandUseSquareFeet	927,000.00	5,104,360.80
tblLandUse	LotAcreage	0.10	0.07
tblLandUse	LotAcreage	12.99	88.81
tblLandUse	LotAcreage	15.00	16.16
tblLandUse	LotAcreage	24.44	1.30
tblLandUse	LotAcreage	167.21	117.18
tblLandUse	LotAcreage	5.63	27.24
tblLandUse	Population	686.00	781.00
tblLandUse	Population	555.00	631.00
tblLandUse	Population	1,473.00	1,674.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
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tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
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tblVehicleEF	HHD	8.8750e-003	8.8210e-003
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tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005

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tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
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tblVehicleEF	HHD	3.8000e-005	1.0000e-006
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tblVehicleEF	HHD	0.04	0.08
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tblVehicleEF	HHD	1,393.58	1,052.28
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tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43

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tblVehicleEF	HHD	8.8750e-003	8.8210e-003
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tblVehicleEF	HHD	7.4000e-005	0.00
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tblVehicleEF	HHD	8.0000e-005	1.0000e-006
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tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
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tblVehicleEF	HHD	0.06	0.02

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tblVehicleEF	HHD	0.01	9.4330e-003
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tblVehicleEF	LDA	0.01	0.11
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tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02

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tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
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tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
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tblVehicleEF	LDA	0.01	0.07
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tblVehicleEF	LDA	0.01	0.10
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tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003

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tblVehicleEF	LDA	0.02	0.04
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tblVehicleEF	LDT1	0.03	0.12
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tblVehicleEF	LDT1	0.03	0.12
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tblVehicleEF	LDT1	0.03	0.03
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tblVehicleEF	LDT1	0.03	0.03
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tblVehicleEF	LDT2	0.04	0.05
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tblVehicleEF	LDT2	0.04	0.05

tblVehicleEF	LDT2	0.02	0.04
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tblVehicleEF	LDT2	0.48	1.54
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tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07

tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003

tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02

tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003

tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003

tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004

tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57

tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12

tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003

tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
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tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
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tblVehicleEF	MH	0.52	2.33
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tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	0.01	0.02
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tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
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tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004

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tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
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tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
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tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
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tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003

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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09

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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
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tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003

tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
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tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.05	0.25
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tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
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tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
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tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003

tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83

tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02

tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003

tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02

tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	7.16	6.11
tblVehicleTrips	ST_TR	0.39	0.29
tblVehicleTrips	ST_TR	1.32	1.17
tblVehicleTrips	ST_TR	5.00	5.22
tblVehicleTrips	ST_TR	49.97	34.59
tblVehicleTrips	ST_TR	9.91	7.16
tblVehicleTrips	ST_TR	0.00	0.32
tblVehicleTrips	SU_TR	6.07	4.71
tblVehicleTrips	SU_TR	0.37	0.28
tblVehicleTrips	SU_TR	0.68	2.95
tblVehicleTrips	SU_TR	4.36	4.52
tblVehicleTrips	SU_TR	25.24	15.83
tblVehicleTrips	SU_TR	8.62	6.41

tblVehicleTrips	SU_TR	0.00	0.80
tblVehicleTrips	WD_TR	6.59	5.49
tblVehicleTrips	WD_TR	4.38	3.07
tblVehicleTrips	WD_TR	6.97	2.92
tblVehicleTrips	WD_TR	4.99	4.87
tblVehicleTrips	WD_TR	42.70	28.31
tblVehicleTrips	WD_TR	9.52	7.08
tblVehicleTrips	WD_TR	0.00	0.80

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508
Energy	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991
Mobile	21.7960	164.2600	268.9333	1.1970	115.4967	1.2124	116.7091	30.9277	1.1528	32.0805		134,135.3895	134,135.3895	7.5424		134,323.9496
Total	**435.0223**	**196.0427**	**836.5394**	**2.5018**	**115.4967**	**75.0199**	**190.5165**	**30.9277**	**74.9602**	**105.8879**	**8,889.2056**	**165,255.5465**	**174,144.7521**	**34.4532**	**0.8581**	**175,261.7994**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508
Energy	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991
Mobile	21.7960	164.2600	268.9333	1.1970	115.4967	1.2124	116.7091	30.9277	1.1528	32.0805		134,135.3895	134,135.3895	7.5424		134,323.9496
Total	**435.0223**	**196.0427**	**836.5394**	**2.5018**	**115.4967**	**75.0199**	**190.5165**	**30.9277**	**74.9602**	**105.8879**	**8,889.2056**	**165,255.5465**	**174,144.7521**	**34.4532**	**0.8581**	**175,261.7994**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 209.89

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.7960	164.2600	268.9333	1.1970	115.4967	1.2124	116.7091	30.9277	1.1528	32.0805		134,135.3895	134,135.3895	7.5424		134,323.9496
Unmitigated	21.7960	164.2600	268.9333	1.1970	115.4967	1.2124	116.7091	30.9277	1.1528	32.0805		134,135.3895	134,135.3895	7.5424		134,323.9496

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,317.74	1,465.20	1130.40	4,483,460	4,483,460
Day-Care Center	230.25	21.94	20.81	248,024	248,024
General Light Industry	1,654.11	663.69	1667.57	6,706,825	6,706,825
Mobile Home Park	944.26	1,012.68	877.37	3,227,415	3,227,415
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	6,937.51	8,475.55	3877.58	14,534,518	14,534,518
Single Family Housing	3,646.51	3,684.83	3302.44	12,311,416	12,311,416
User Defined Industrial	450.34	180.70	454.02	6,003,807	6,003,807
Total	15,180.72	15,504.59	11,330.20	47,515,465	47,515,465

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	28	58	14
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Mobile Home Park	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Day-Care Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
General Light Industry	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
Mobile Home Park	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Single Family Housing	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991
NaturalGas Unmitigated	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	10240.8	0.1104	0.9438	0.4016	6.0200e-003		0.0763	0.0763		0.0763	0.0763		1,204.7961	1,204.7961	0.0231	0.0221	1,211.9556
Day-Care Center	72	7.8000e-004	7.0600e-003	5.9300e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.4706	8.4706	1.6000e-004	1.6000e-004	8.5209
General Light Industry	50360.3	0.5431	4.9373	4.1473	0.0296		0.3752	0.3752		0.3752	0.3752		5,924.7413	5,924.7413	0.1136	0.1086	5,959.9491
Mobile Home Park	12789.7	0.1379	1.1787	0.5016	7.5200e-003		0.0953	0.0953		0.0953	0.0953		1,504.6653	1,504.6653	0.0288	0.0276	1,513.6067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1490.31	0.0161	0.1461	0.1227	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.3310	175.3310	3.3600e-003	3.2100e-003	176.3729
Single Family Housing	43169.9	0.4656	3.9784	1.6929	0.0254		0.3217	0.3217		0.3217	0.3217		5,078.8130	5,078.8130	0.0973	0.0931	5,108.9938
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.2739**	**11.1913**	**6.8721**	**0.0695**		**0.8801**	**0.8801**		**0.8801**	**0.8801**		**13,896.8172**	**13,896.8172**	**0.2664**	**0.2548**	**13,979.3991**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	10.2408	0.1104	0.9438	0.4016	6.0200e-003		0.0763	0.0763		0.0763	0.0763		1,204.7961	1,204.7961	0.0231	0.0221	1,211.9556
Day-Care Center	0.072	7.8000e-004	7.0600e-003	5.9300e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.4706	8.4706	1.6000e-004	1.6000e-004	8.5209
General Light Industry	50.3603	0.5431	4.9373	4.1473	0.0296		0.3752	0.3752		0.3752	0.3752		5,924.7413	5,924.7413	0.1136	0.1086	5,959.9491
Mobile Home Park	12.7897	0.1379	1.1787	0.5016	7.5200e-003		0.0953	0.0953		0.0953	0.0953		1,504.6653	1,504.6653	0.0288	0.0276	1,513.6067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.49031	0.0161	0.1461	0.1227	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.3310	175.3310	3.3600e-003	3.2100e-003	176.3729
Single Family Housing	43.1699	0.4656	3.9784	1.6929	0.0254		0.3217	0.3217		0.3217	0.3217		5,078.8130	5,078.8130	0.0973	0.0931	5,108.9938
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.2739**	**11.1913**	**6.8721**	**0.0695**		**0.8801**	**0.8801**		**0.8801**	**0.8801**		**13,896.8172**	**13,896.8172**	**0.2664**	**0.2548**	**13,979.3991**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508
Unmitigated	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	14.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	146.6788					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	248.6722	19.6902	482.6157	1.2312		72.4925	72.4925		72.4925	72.4925	8,889.2056	17,082.0000	25,971.2056	26.5093	0.6033	26,813.7330
Landscaping	2.3468	0.9013	78.1183	4.1500e-003		0.4348	0.4348		0.4348	0.4348		141.3397	141.3397	0.1351		144.7178
Total	**411.9524**	**20.5914**	**560.7340**	**1.2353**		**72.9273**	**72.9273**		**72.9273**	**72.9273**	**8,889.2056**	**17,223.3397**	**26,112.5453**	**26.6445**	**0.6033**	**26,958.4508**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	14.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	146.6788					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	248.6722	19.6902	482.6157	1.2312		72.4925	72.4925		72.4925	72.4925	8,889.2056	17,082.0000	25,971.2056	26.5093	0.6033	26,813.7330
Landscaping	2.3468	0.9013	78.1183	4.1500e-003		0.4348	0.4348		0.4348	0.4348		141.3397	141.3397	0.1351		144.7178
Total	**411.9524**	**20.5914**	**560.7340**	**1.2353**		**72.9273**	**72.9273**		**72.9273**	**72.9273**	**8,889.2056**	**17,223.3397**	**26,112.5453**	**26.6445**	**0.6033**	**26,958.4508**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Existing Operations)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	75.00	Student	0.07	3,000.00	0
General Light Industry	565.76	1000sqft	88.81	565,759.00	0
User Defined Industrial	565.76	User Defined Unit	0.00	565,759.00	0
Other Asphalt Surfaces	209.89	Acre	209.89	9,142,808.40	0
Apartments Low Rise	240.00	Dwelling Unit	16.16	703,929.60	781
Mobile Home Park	194.00	Dwelling Unit	1.30	56,628.00	631
Single Family Housing	515.00	Dwelling Unit	117.18	5,104,360.80	1674
Regional Shopping Center	245.03	1000sqft	27.24	245,029.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Winter

Project Characteristics -

Land Use - Total Existing Area is 460.65 acres. Truck trips generated by the General Light Industrial use will be modeled under the User Defined Industrial land use category.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	500.00	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003

tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	4,239.21	3,000.00
tblLandUse	LandUseSquareFeet	0.00	565,759.00
tblLandUse	LandUseSquareFeet	240,000.00	703,929.60
tblLandUse	LandUseSquareFeet	232,800.00	56,628.00
tblLandUse	LandUseSquareFeet	927,000.00	5,104,360.80
tblLandUse	LotAcreage	0.10	0.07
tblLandUse	LotAcreage	12.99	88.81
tblLandUse	LotAcreage	15.00	16.16
tblLandUse	LotAcreage	24.44	1.30
tblLandUse	LotAcreage	167.21	117.18
tblLandUse	LotAcreage	5.63	27.24
tblLandUse	Population	686.00	781.00
tblLandUse	Population	555.00	631.00
tblLandUse	Population	1,473.00	1,674.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
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tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005

tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003
tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43

tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
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tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006

tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
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tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02

tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02

tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003

tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
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tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07

tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003

tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004

tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05

tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07

tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003

tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02

tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003

tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003

tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004

tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57

tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12

tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003

tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
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tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004

tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003

tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41

tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.9000e-005	7.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003

tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4190e-003
tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09

tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003

tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67

tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06

tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003

tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003

tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83

tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02

tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003

tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02

tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	7.16	6.11
tblVehicleTrips	ST_TR	0.39	0.29
tblVehicleTrips	ST_TR	1.32	1.17
tblVehicleTrips	ST_TR	5.00	5.22
tblVehicleTrips	ST_TR	49.97	34.59
tblVehicleTrips	ST_TR	9.91	7.16
tblVehicleTrips	ST_TR	0.00	0.32
tblVehicleTrips	SU_TR	6.07	4.71
tblVehicleTrips	SU_TR	0.37	0.28
tblVehicleTrips	SU_TR	0.68	2.95
tblVehicleTrips	SU_TR	4.36	4.52
tblVehicleTrips	SU_TR	25.24	15.83
tblVehicleTrips	SU_TR	8.62	6.41

tblVehicleTrips	SU_TR	0.00	0.80
tblVehicleTrips	WD_TR	6.59	5.49
tblVehicleTrips	WD_TR	4.38	3.07
tblVehicleTrips	WD_TR	6.97	2.92
tblVehicleTrips	WD_TR	4.99	4.87
tblVehicleTrips	WD_TR	42.70	28.31
tblVehicleTrips	WD_TR	9.52	7.08
tblVehicleTrips	WD_TR	0.00	0.80

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508
Energy	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991
Mobile	20.5164	171.1024	232.5623	1.1519	115.3903	1.2098	116.6001	30.8891	1.1504	32.0395		125,947.8167	125,947.8167	2.9712		126,022.0960
Total	**433.7427**	**202.8851**	**800.1684**	**2.4568**	**115.3903**	**75.0173**	**190.4075**	**30.8891**	**74.9578**	**105.8469**	**8,889.2056**	**157,067.9737**	**165,957.1792**	**29.8820**	**0.8581**	**166,959.9459**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508
Energy	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991
Mobile	20.5164	171.1024	232.5623	1.1519	115.3903	1.2098	116.6001	30.8891	1.1504	32.0395		125,947.8167	125,947.8167	2.9712		126,022.0960
Total	**433.7427**	**202.8851**	**800.1684**	**2.4568**	**115.3903**	**75.0173**	**190.4075**	**30.8891**	**74.9578**	**105.8469**	**8,889.2056**	**157,067.9737**	**165,957.1792**	**29.8820**	**0.8581**	**166,959.9459**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 209.89

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	20.5164	171.1024	232.5623	1.1519	115.3903	1.2098	116.6001	30.8891	1.1504	32.0395		125,947.8167	125,947.8167	2.9712		126,022.0960
Unmitigated	20.5164	171.1024	232.5623	1.1519	115.3903	1.2098	116.6001	30.8891	1.1504	32.0395		125,947.8167	125,947.8167	2.9712		126,022.0960

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,317.74	1,465.20	1130.40	4,483,460	4,483,460
Day-Care Center	230.25	21.94	20.81	248,024	248,024
General Light Industry	1,654.11	663.69	1667.57	6,706,825	6,706,825
Mobile Home Park	944.26	1,012.68	877.37	3,227,415	3,227,415
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	6,937.51	8,475.55	3877.58	14,534,518	14,534,518
Single Family Housing	3,646.51	3,684.83	3302.44	12,311,416	12,311,416
User Defined Industrial	450.34	180.70	454.02	6,003,807	6,003,807
Total	15,180.72	15,504.59	11,330.20	47,515,465	47,515,465

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	28	58	14
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Mobile Home Park	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Day-Care Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
General Light Industry	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
Mobile Home Park	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Single Family Housing	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991
NaturalGas Unmitigated	1.2739	11.1913	6.8721	0.0695		0.8801	0.8801		0.8801	0.8801		13,896.8172	13,896.8172	0.2664	0.2548	13,979.3991

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	10240.8	0.1104	0.9438	0.4016	6.0200e-003		0.0763	0.0763		0.0763	0.0763		1,204.7961	1,204.7961	0.0231	0.0221	1,211.9556
Day-Care Center	72	7.8000e-004	7.0600e-003	5.9300e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.4706	8.4706	1.6000e-004	1.6000e-004	8.5209
General Light Industry	50360.3	0.5431	4.9373	4.1473	0.0296		0.3752	0.3752		0.3752	0.3752		5,924.7413	5,924.7413	0.1136	0.1086	5,959.9491
Mobile Home Park	12789.7	0.1379	1.1787	0.5016	7.5200e-003		0.0953	0.0953		0.0953	0.0953		1,504.6653	1,504.6653	0.0288	0.0276	1,513.6067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1490.31	0.0161	0.1461	0.1227	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.3310	175.3310	3.3600e-003	3.2100e-003	176.3729
Single Family Housing	43169.9	0.4656	3.9784	1.6929	0.0254		0.3217	0.3217		0.3217	0.3217		5,078.8130	5,078.8130	0.0973	0.0931	5,108.9938
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.2739**	**11.1913**	**6.8721**	**0.0695**		**0.8801**	**0.8801**		**0.8801**	**0.8801**		**13,896.8172**	**13,896.8172**	**0.2664**	**0.2548**	**13,979.3991**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	10.2408	0.1104	0.9438	0.4016	6.0200e-003		0.0763	0.0763		0.0763	0.0763		1,204.7961	1,204.7961	0.0231	0.0221	1,211.9556
Day-Care Center	0.072	7.8000e-004	7.0600e-003	5.9300e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.4706	8.4706	1.6000e-004	1.6000e-004	8.5209
General Light Industry	50.3603	0.5431	4.9373	4.1473	0.0296		0.3752	0.3752		0.3752	0.3752		5,924.7413	5,924.7413	0.1136	0.1086	5,959.9491
Mobile Home Park	12.7897	0.1379	1.1787	0.5016	7.5200e-003		0.0953	0.0953		0.0953	0.0953		1,504.6653	1,504.6653	0.0288	0.0276	1,513.6067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.49031	0.0161	0.1461	0.1227	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.3310	175.3310	3.3600e-003	3.2100e-003	176.3729
Single Family Housing	43.1699	0.4656	3.9784	1.6929	0.0254		0.3217	0.3217		0.3217	0.3217		5,078.8130	5,078.8130	0.0973	0.0931	5,108.9938
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.2739**	**11.1913**	**6.8721**	**0.0695**		**0.8801**	**0.8801**		**0.8801**	**0.8801**		**13,896.8172**	**13,896.8172**	**0.2664**	**0.2548**	**13,979.3991**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508
Unmitigated	411.9524	20.5914	560.7340	1.2353		72.9273	72.9273		72.9273	72.9273	8,889.2056	17,223.3397	26,112.5453	26.6445	0.6033	26,958.4508

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	14.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	146.6788					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	248.6722	19.6902	482.6157	1.2312		72.4925	72.4925		72.4925	72.4925	8,889.2056	17,082.0000	25,971.2056	26.5093	0.6033	26,813.7330
Landscaping	2.3468	0.9013	78.1183	4.1500e-003		0.4348	0.4348		0.4348	0.4348		141.3397	141.3397	0.1351		144.7178
Total	**411.9524**	**20.5914**	**560.7340**	**1.2353**		**72.9273**	**72.9273**		**72.9273**	**72.9273**	**8,889.2056**	**17,223.3397**	**26,112.5453**	**26.6445**	**0.6033**	**26,958.4508**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	14.2546					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	146.6788					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	248.6722	19.6902	482.6157	1.2312		72.4925	72.4925		72.4925	72.4925	8,889.2056	17,082.0000	25,971.2056	26.5093	0.6033	26,813.7330
Landscaping	2.3468	0.9013	78.1183	4.1500e-003		0.4348	0.4348		0.4348	0.4348		141.3397	141.3397	0.1351		144.7178
Total	**411.9524**	**20.5914**	**560.7340**	**1.2353**		**72.9273**	**72.9273**		**72.9273**	**72.9273**	**8,889.2056**	**17,223.3397**	**26,112.5453**	**26.6445**	**0.6033**	**26,958.4508**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.5:

CALEEMOD PROPOSED PROJECT EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (High-Cube Transload Operations)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,352.24	1000sqft	31.04	1,352,244.00	0
User Defined Industrial	1,352.24	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (High-Cube Transload Operations) - San Bernardino-South Coast County, Summer

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	30.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	1,352,240.00	1,352,244.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Airport Gateway Specific Plan (High-Cube Transload Operations) - San Bernardino-South Coast County, Summer

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	1,271.11	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
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tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

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tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
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tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
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tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
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tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
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tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
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tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
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tblVehicleEF	MHD	9.2380e-003	0.04
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tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
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tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

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tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
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tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
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tblVehicleEF	OBUS	0.05	0.25
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tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
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tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
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tblVehicleEF	SBUS	0.84	0.06
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tblVehicleEF	SBUS	0.88	1.33
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.48
tblVehicleTrips	ST_TR	0.00	0.46
tblVehicleTrips	SU_TR	1.68	0.44
tblVehicleTrips	SU_TR	0.00	0.43
tblVehicleTrips	WD_TR	1.68	0.71
tblVehicleTrips	WD_TR	0.00	0.69
tblWater	IndoorWaterUseRate	312,705,500.00	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Energy	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
Mobile	3.9896	194.4254	72.7827	0.8434	40.9922	1.4045	42.3967	11.1502	1.3431	12.4932		94,094.3698	94,094.3698	6.9191		94,267.3482
Offroad	0.5677	0.9691	3.6413	0.0196		0.0359	0.0359		0.0359	0.0359		1,854.2728	1,854.2728	0.0489		1,855.4964
Total	**22.6782**	**195.9164**	**77.1346**	**0.8661**	**40.9922**	**1.4809**	**42.4730**	**11.1502**	**1.4194**	**12.5696**		**96,572.5089**	**96,572.5089**	**6.9816**	**0.0114**	**96,750.4529**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Energy	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
Mobile	3.9896	194.4254	72.7827	0.8434	40.9922	1.4045	42.3967	11.1502	1.3431	12.4932		94,094.3698	94,094.3698	6.9191		94,267.3482
Offroad	0.5677	0.9691	3.6413	0.0196		0.0359	0.0359		0.0359	0.0359		1,854.2728	1,854.2728	0.0489		1,855.4964
Total	**22.6782**	**195.9164**	**77.1346**	**0.8661**	**40.9922**	**1.4809**	**42.4730**	**11.1502**	**1.4194**	**12.5696**		**96,572.5089**	**96,572.5089**	**6.9816**	**0.0114**	**96,750.4529**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9896	194.4254	72.7827	0.8434	40.9922	1.4045	42.3967	11.1502	1.3431	12.4932		94,094.3698	94,094.3698	6.9191		94,267.3482
Unmitigated	3.9896	194.4254	72.7827	0.8434	40.9922	1.4045	42.3967	11.1502	1.3431	12.4932		94,094.3698	94,094.3698	6.9191		94,267.3482

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	965.37	648.27	599.99	3,719,446	3,719,446
User Defined Industrial	927.50	622.84	576.46	12,140,598	12,140,598
Total	1,892.87	1,271.11	1,176.45	15,860,044	15,860,044

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
NaturalGas Unmitigated	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	5297.83	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0571**	**0.5194**	**0.4363**	**3.1200e-003**		**0.0395**	**0.0395**		**0.0395**	**0.0395**		**623.2744**	**623.2744**	**0.0120**	**0.0114**	**626.9782**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	5.29783	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0571**	**0.5194**	**0.4363**	**3.1200e-003**		**0.0395**	**0.0395**		**0.0395**	**0.0395**		**623.2744**	**623.2744**	**0.0120**	**0.0114**	**626.9782**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Unmitigated	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.6042					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0251	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Total	**18.0637**	**2.4700e-003**	**0.2744**	**2.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**		**0.5919**	**0.5919**	**1.5200e-003**		**0.6300**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.6042					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0251	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Total	**18.0637**	**2.4700e-003**	**0.2744**	**2.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**		**0.5919**	**0.5919**	**1.5200e-003**		**0.6300**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/Backhoes	0.5677	0.9691	3.6413	0.0196		0.0359	0.0359		0.0359	0.0359		1,854.2728	1,854.2728	0.0489		1,855.4964
Total	**0.5677**	**0.9691**	**3.6413**	**0.0196**		**0.0359**	**0.0359**		**0.0359**	**0.0359**		**1,854.2728**	**1,854.2728**	**0.0489**		**1,855.4964**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (High-Cube Transload Operations)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,352.24	1000sqft	31.04	1,352,244.00	0
User Defined Industrial	1,352.24	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (High-Cube Transload Operations) - San Bernardino-South Coast County, Winter

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	30.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	1,352,240.00	1,352,244.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Airport Gateway Specific Plan (High-Cube Transload Operations) - San Bernardino-South Coast County, Winter

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	1,271.11	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

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tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
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tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
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tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
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tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
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tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
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tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005

tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
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tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
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tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
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tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28

tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
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tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
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tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02

tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003

tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4190e-003
tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
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tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86

tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003

tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94

tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.48
tblVehicleTrips	ST_TR	0.00	0.46
tblVehicleTrips	SU_TR	1.68	0.44
tblVehicleTrips	SU_TR	0.00	0.43
tblVehicleTrips	WD_TR	1.68	0.71
tblVehicleTrips	WD_TR	0.00	0.69
tblWater	IndoorWaterUseRate	312,705,500.00	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Energy	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
Mobile	3.6039	201.7331	47.9346	0.8395	40.8378	1.3995	42.2374	11.0941	1.3384	12.4325		89,205.2711	89,205.2711	0.2274		89,210.9554
Offroad	0.5677	0.9691	3.6413	0.0196		0.0359	0.0359		0.0359	0.0359		1,854.2728	1,854.2728	0.0489		1,855.4964
Total	**22.2924**	**203.2240**	**52.2866**	**0.8622**	**40.8378**	**1.4759**	**42.3137**	**11.0941**	**1.4147**	**12.5088**		**91,683.4102**	**91,683.4102**	**0.2898**	**0.0114**	**91,694.0601**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Energy	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
Mobile	3.6039	201.7331	47.9346	0.8395	40.8378	1.3995	42.2374	11.0941	1.3384	12.4325		89,205.2711	89,205.2711	0.2274		89,210.9554
Offroad	0.5677	0.9691	3.6413	0.0196		0.0359	0.0359		0.0359	0.0359		1,854.2728	1,854.2728	0.0489		1,855.4964
Total	**22.2924**	**203.2240**	**52.2866**	**0.8622**	**40.8378**	**1.4759**	**42.3137**	**11.0941**	**1.4147**	**12.5088**		**91,683.4102**	**91,683.4102**	**0.2898**	**0.0114**	**91,694.0601**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.6039	201.7331	47.9346	0.8395	40.8378	1.3995	42.2374	11.0941	1.3384	12.4325		89,205.2711	89,205.2711	0.2274		89,210.9554
Unmitigated	3.6039	201.7331	47.9346	0.8395	40.8378	1.3995	42.2374	11.0941	1.3384	12.4325		89,205.2711	89,205.2711	0.2274		89,210.9554

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	965.37	648.27	599.99	3,719,446	3,719,446
User Defined Industrial	927.50	622.84	576.46	12,140,598	12,140,598
Total	1,892.87	1,271.11	1,176.45	15,860,044	15,860,044

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
NaturalGas Unmitigated	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	5297.83	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0571**	**0.5194**	**0.4363**	**3.1200e-003**		**0.0395**	**0.0395**		**0.0395**	**0.0395**		**623.2744**	**623.2744**	**0.0120**	**0.0114**	**626.9782**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	5.29783	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2744	623.2744	0.0120	0.0114	626.9782
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0571**	**0.5194**	**0.4363**	**3.1200e-003**		**0.0395**	**0.0395**		**0.0395**	**0.0395**		**623.2744**	**623.2744**	**0.0120**	**0.0114**	**626.9782**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Unmitigated	18.0637	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.6042					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0251	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Total	**18.0637**	**2.4700e-003**	**0.2744**	**2.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**		**0.5919**	**0.5919**	**1.5200e-003**		**0.6300**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.6042					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0251	2.4700e-003	0.2744	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		0.5919	0.5919	1.5200e-003		0.6300
Total	**18.0637**	**2.4700e-003**	**0.2744**	**2.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**		**0.5919**	**0.5919**	**1.5200e-003**		**0.6300**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/Backhoes	0.5677	0.9691	3.6413	0.0196		0.0359	0.0359		0.0359	0.0359		1,854.2728	1,854.2728	0.0489		1,855.4964
Total	**0.5677**	**0.9691**	**3.6413**	**0.0196**		**0.0359**	**0.0359**		**0.0359**	**0.0359**		**1,854.2728**	**1,854.2728**	**0.0489**		**1,855.4964**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations) - San Bernardino-South Coast County, Summer

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Lot Acreage based on the Total Project Area minus the area of the Industrial uses.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	T24E	6.47	4.53
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	2.20	1.54
tblEnergyUse	T24NG	55.15	38.61
tblEnergyUse	T24NG	1.92	1.34
tblEnergyUse	T24NG	15.36	10.75

tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00
tblLandUse	LotAcreage	5.00	1.72
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	82.13	61.60
tblSolidWaste	SolidWasteGenerationRate	215.75	161.81
tblSolidWaste	SolidWasteGenerationRate	98.96	74.22
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08

tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003
tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006

tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00

tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30

tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76

tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11

tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004

tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004

tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004

tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004

tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06

tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003

tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003

tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003

tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003

tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003

tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13

tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00

tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04

tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89

tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26

tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.9000e-005	7.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003

tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4190e-003
tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004

tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70

tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23

tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003

tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83

tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02

tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01

tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003

tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004

tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07

tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	11.00	25.00
tblVehicleTrips	PR_TP	54.00	75.00
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	WD_TR	8.17	8.36

tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	8.11	11.26
tblWater	IndoorWaterUseRate	3,805,015.50	3,044,012.40
tblWater	IndoorWaterUseRate	15,220,421.71	12,176,337.37
tblWater	IndoorWaterUseRate	640,264,190.29	512,211,352.23

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Energy	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038
Mobile	31.9742	128.5583	394.6030	1.3818	163.9424	0.9781	164.9205	43.7966	0.9244	44.7210		155,168.2768	155,168.2768	7.6834		155,360.3614
Total	**63.2238**	**139.2960**	**405.8374**	**1.4463**	**163.9424**	**1.8006**	**165.7430**	**43.7966**	**1.7468**	**45.5435**		**168,034.1679**	**168,034.1679**	**7.9423**	**0.2358**	**168,302.9897**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Energy	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038
Mobile	31.9742	128.5583	394.6030	1.3818	163.9424	0.9781	164.9205	43.7966	0.9244	44.7210		155,168.2768	155,168.2768	7.6834		155,360.3614
Total	**63.2238**	**139.2960**	**405.8374**	**1.4463**	**163.9424**	**1.8006**	**165.7430**	**43.7966**	**1.7468**	**45.5435**		**168,034.1679**	**168,034.1679**	**7.9423**	**0.2358**	**168,302.9897**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.9742	128.5583	394.6030	1.3818	163.9424	0.9781	164.9205	43.7966	0.9244	44.7210		155,168.2768	155,168.2768	7.6834		155,360.3614
Unmitigated	31.9742	128.5583	394.6030	1.3818	163.9424	0.9781	164.9205	43.7966	0.9244	44.7210		155,168.2768	155,168.2768	7.6834		155,360.3614

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,254.00	1,228.50	892.50	2,860,337	2,860,337
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	7,757.00	9,476.88	4335.69	19,456,499	19,456,499
Research & Development	14,661.94	2,474.11	1445.40	37,275,792	37,275,792
Total	23,672.95	13,179.48	6,673.59	59,592,629	59,592,629

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	75	0	25
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038
NaturalGas Unmitigated	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	8932.19	0.0963	0.8757	0.7356	5.2500e-003		0.0666	0.0666		0.0666	0.0666		1,050.8461	1,050.8461	0.0201	0.0193	1,057.0907
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	923.266	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6195	108.6195	2.0800e-003	1.9900e-003	109.2650
Research & Development	99463.7	1.0727	9.7513	8.1911	0.0585		0.7411	0.7411		0.7411	0.7411		11,701.6112	11,701.6112	0.2243	0.2145	11,771.1480
Total		**1.1789**	**10.7176**	**9.0028**	**0.0643**		**0.8145**	**0.8145**		**0.8145**	**0.8145**		**12,861.0768**	**12,861.0768**	**0.2465**	**0.2358**	**12,937.5038**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	8.93219	0.0963	0.8757	0.7356	5.2500e-003		0.0666	0.0666		0.0666	0.0666		1,050.8461	1,050.8461	0.0201	0.0193	1,057.0907
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.923266	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6195	108.6195	2.0800e-003	1.9900e-003	109.2650
Research & Development	99.4637	1.0727	9.7513	8.1911	0.0585		0.7411	0.7411		0.7411	0.7411		11,701.6112	11,701.6112	0.2243	0.2145	11,771.1480
Total		**1.1789**	**10.7176**	**9.0028**	**0.0643**		**0.8145**	**0.8145**		**0.8145**	**0.8145**		**12,861.0768**	**12,861.0768**	**0.2465**	**0.2358**	**12,937.5038**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Unmitigated	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.2972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2042	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Total	**30.0707**	**0.0201**	**2.2317**	**1.7000e-004**		**7.9200e-003**	**7.9200e-003**		**7.9200e-003**	**7.9200e-003**		**4.8144**	**4.8144**	**0.0124**		**5.1245**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.2972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2042	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Total	**30.0707**	**0.0201**	**2.2317**	**1.7000e-004**		**7.9200e-003**	**7.9200e-003**		**7.9200e-003**	**7.9200e-003**		**4.8144**	**4.8144**	**0.0124**		**5.1245**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations) - San Bernardino-South Coast County, Winter

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Lot Acreage based on the Total Project Area minus the area of the Industrial uses.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	T24E	6.47	4.53
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	2.20	1.54
tblEnergyUse	T24NG	55.15	38.61
tblEnergyUse	T24NG	1.92	1.34
tblEnergyUse	T24NG	15.36	10.75

tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00
tblLandUse	LotAcreage	5.00	1.72
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	82.13	61.60
tblSolidWaste	SolidWasteGenerationRate	215.75	161.81
tblSolidWaste	SolidWasteGenerationRate	98.96	74.22
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08

tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003
tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006

tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00

tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30

tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76

tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11

tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004

tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004

tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004

tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004

tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
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tblVehicleEF	LDT2	0.05	0.06

tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
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tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003

tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003

tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003

tblVehicleEF	MCY	2.0660e-003	2.2650e-003
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tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003

tblVehicleEF	MCY	3.0880e-003	2.7230e-003
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tblVehicleEF	MCY	0.65	0.70
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tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
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tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
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tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13

tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
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tblVehicleEF	MDV	0.89	1.86
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tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00

tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04

tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89

tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26

tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003

tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
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tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
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tblVehicleEF	OBUS	0.31	0.92
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tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004

tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
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tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70

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tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
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tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23

tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02
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tblVehicleEF	OBUS	0.19	0.19
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tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
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tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004

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tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
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tblVehicleEF	SBUS	0.05	4.9270e-003
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tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
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tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
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tblVehicleEF	SBUS	0.01	2.6280e-003
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tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
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tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
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tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
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tblVehicleEF	SBUS	1,030.56	868.83

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tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
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tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
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tblVehicleEF	SBUS	0.01	0.04
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tblVehicleEF	SBUS	0.01	2.6010e-003
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tblVehicleEF	SBUS	0.84	0.06
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
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tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
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tblVehicleEF	SBUS	0.04	0.01

tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
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tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
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tblVehicleEF	SBUS	1.26	0.39
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tblVehicleEF	SBUS	0.05	0.02
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tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003

tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
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tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
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tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
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tblVehicleEF	UBUS	0.05	6.5770e-003
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tblVehicleEF	UBUS	6.59	0.77
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tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004

tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07

tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	11.00	25.00
tblVehicleTrips	PR_TP	54.00	75.00
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	WD_TR	8.17	8.36

tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	8.11	11.26
tblWater	IndoorWaterUseRate	3,805,015.50	3,044,012.40
tblWater	IndoorWaterUseRate	15,220,421.71	12,176,337.37
tblWater	IndoorWaterUseRate	640,264,190.29	512,211,352.23

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Energy	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038
Mobile	30.2192	134.5009	351.5358	1.3091	163.8813	0.9776	164.8589	43.7745	0.9239	44.6983		145,128.7641	145,128.7641	5.0968		145,256.1841
Total	**61.4688**	**145.2385**	**362.7702**	**1.3735**	**163.8813**	**1.8000**	**165.6813**	**43.7745**	**1.7463**	**45.5208**		**157,994.6552**	**157,994.6552**	**5.3557**	**0.2358**	**158,198.8123**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Energy	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038
Mobile	30.2192	134.5009	351.5358	1.3091	163.8813	0.9776	164.8589	43.7745	0.9239	44.6983		145,128.7641	145,128.7641	5.0968		145,256.1841
Total	**61.4688**	**145.2385**	**362.7702**	**1.3735**	**163.8813**	**1.8000**	**165.6813**	**43.7745**	**1.7463**	**45.5208**		**157,994.6552**	**157,994.6552**	**5.3557**	**0.2358**	**158,198.8123**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.2192	134.5009	351.5358	1.3091	163.8813	0.9776	164.8589	43.7745	0.9239	44.6983		145,128.7641	145,128.7641	5.0968		145,256.1841
Unmitigated	30.2192	134.5009	351.5358	1.3091	163.8813	0.9776	164.8589	43.7745	0.9239	44.6983		145,128.7641	145,128.7641	5.0968		145,256.1841

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,254.00	1,228.50	892.50	2,860,337	2,860,337
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	7,757.00	9,476.88	4335.69	19,456,499	19,456,499
Research & Development	14,661.94	2,474.11	1445.40	37,275,792	37,275,792
Total	23,672.95	13,179.48	6,673.59	59,592,629	59,592,629

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	75	0	25
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038
NaturalGas Unmitigated	1.1789	10.7176	9.0028	0.0643		0.8145	0.8145		0.8145	0.8145		12,861.0768	12,861.0768	0.2465	0.2358	12,937.5038

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	8932.19	0.0963	0.8757	0.7356	5.2500e-003		0.0666	0.0666		0.0666	0.0666		1,050.8461	1,050.8461	0.0201	0.0193	1,057.0907
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	923.266	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6195	108.6195	2.0800e-003	1.9900e-003	109.2650
Research & Development	99463.7	1.0727	9.7513	8.1911	0.0585		0.7411	0.7411		0.7411	0.7411		11,701.6112	11,701.6112	0.2243	0.2145	11,771.1480
Total		**1.1789**	**10.7176**	**9.0028**	**0.0643**		**0.8145**	**0.8145**		**0.8145**	**0.8145**		**12,861.0768**	**12,861.0768**	**0.2465**	**0.2358**	**12,937.5038**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	8.93219	0.0963	0.8757	0.7356	5.2500e-003		0.0666	0.0666		0.0666	0.0666		1,050.8461	1,050.8461	0.0201	0.0193	1,057.0907
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.923266	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003		108.6195	108.6195	2.0800e-003	1.9900e-003	109.2650
Research & Development	99.4637	1.0727	9.7513	8.1911	0.0585		0.7411	0.7411		0.7411	0.7411		11,701.6112	11,701.6112	0.2243	0.2145	11,771.1480
Total		**1.1789**	**10.7176**	**9.0028**	**0.0643**		**0.8145**	**0.8145**		**0.8145**	**0.8145**		**12,861.0768**	**12,861.0768**	**0.2465**	**0.2358**	**12,937.5038**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Unmitigated	30.0707	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.2972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2042	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Total	**30.0707**	**0.0201**	**2.2317**	**1.7000e-004**		**7.9200e-003**	**7.9200e-003**		**7.9200e-003**	**7.9200e-003**		**4.8144**	**4.8144**	**0.0124**		**5.1245**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.2972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2042	0.0201	2.2317	1.7000e-004		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003		4.8144	4.8144	0.0124		5.1245
Total	**30.0707**	**0.0201**	**2.2317**	**1.7000e-004**		**7.9200e-003**	**7.9200e-003**		**7.9200e-003**	**7.9200e-003**		**4.8144**	**4.8144**	**0.0124**		**5.1245**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Warehouse Operations)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6,310.47	1000sqft	144.87	6,310,472.00	0
User Defined Industrial	6,310.47	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Summer

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.60
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.12
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.05
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.23
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	6,310,470.00	6,310,472.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	23.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	5,931.84	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
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tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

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tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
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tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
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tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
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tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
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tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
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tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
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tblVehicleEF	MHD	9.2380e-003	0.04
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tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
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tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

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tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
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tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
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tblVehicleEF	OBUS	0.05	0.25
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tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
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tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
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tblVehicleEF	SBUS	0.84	0.06
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tblVehicleEF	SBUS	0.88	1.33
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	ST_TR	0.00	0.03
tblVehicleTrips	SU_TR	1.68	0.05
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	1.68	1.38
tblVehicleTrips	WD_TR	0.00	0.36
tblWater	IndoorWaterUseRate	1,459,296,187.50	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Energy	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
Mobile	17.5755	342.6883	258.3742	2.1585	158.3010	2.6864	160.9874	43.2954	2.5635	45.8589		237,738.8913	237,738.8913	11.0686		238,015.6051
Offroad	2.6116	4.4577	16.7501	0.0901		0.1651	0.1651		0.1651	0.1651		8,529.6549	8,529.6549	0.2251		8,535.2833
Total	**104.7508**	**349.5814**	**278.4408**	**2.2632**	**158.3010**	**3.0403**	**161.3413**	**43.2954**	**2.9173**	**46.2127**		**249,179.9224**	**249,179.9224**	**11.3566**	**0.0533**	**249,479.7269**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Energy	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
Mobile	17.5755	342.6883	258.3742	2.1585	158.3010	2.6864	160.9874	43.2954	2.5635	45.8589		237,738.8913	237,738.8913	11.0686		238,015.6051
Offroad	2.6116	4.4577	16.7501	0.0901		0.1651	0.1651		0.1651	0.1651		8,529.6549	8,529.6549	0.2251		8,535.2833
Total	**104.7508**	**349.5814**	**278.4408**	**2.2632**	**158.3010**	**3.0403**	**161.3413**	**43.2954**	**2.9173**	**46.2127**		**249,179.9224**	**249,179.9224**	**11.3566**	**0.0533**	**249,479.7269**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.5755	342.6883	258.3742	2.1585	158.3010	2.6864	160.9874	43.2954	2.5635	45.8589		237,738.8913	237,738.8913	11.0686		238,015.6051
Unmitigated	17.5755	342.6883	258.3742	2.1585	158.3010	2.6864	160.9874	43.2954	2.5635	45.8589		237,738.8913	237,738.8913	11.0686		238,015.6051

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	8,736.85	753.47	301.01	27,391,071	27,391,071
User Defined Industrial	2,243.37	193.10	77.62	23,894,173	23,894,173
Total	10,980.22	946.57	378.63	51,285,244	51,285,244

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.116800	0.052600	0.226900	0.603700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
NaturalGas Unmitigated	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	24723.2	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2666**	**2.4239**	**2.0360**	**0.0145**		**0.1842**	**0.1842**		**0.1842**	**0.1842**		**2,908.6140**	**2,908.6140**	**0.0558**	**0.0533**	**2,925.8985**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	24.7232	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2666**	**2.4239**	**2.0360**	**0.0145**		**0.1842**	**0.1842**		**0.1842**	**0.1842**		**2,908.6140**	**2,908.6140**	**0.0558**	**0.0533**	**2,925.8985**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Unmitigated	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.0269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.1531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.1172	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Total	**84.2971**	**0.0115**	**1.2804**	**1.0000e-004**		**4.5400e-003**	**4.5400e-003**		**4.5400e-003**	**4.5400e-003**		**2.7621**	**2.7621**	**7.1200e-003**		**2.9400**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.0269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.1531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.1172	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Total	**84.2971**	**0.0115**	**1.2804**	**1.0000e-004**		**4.5400e-003**	**4.5400e-003**		**4.5400e-003**	**4.5400e-003**		**2.7621**	**2.7621**	**7.1200e-003**		**2.9400**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	23	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/Backhoes	2.6116	4.4577	16.7501	0.0901		0.1651	0.1651		0.1651	0.1651		8,529.6549	8,529.6549	0.2251		8,535.2833
Total	**2.6116**	**4.4577**	**16.7501**	**0.0901**		**0.1651**	**0.1651**		**0.1651**	**0.1651**		**8,529.6549**	**8,529.6549**	**0.2251**		**8,535.2833**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Warehouse Operations)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6,310.47	1000sqft	144.87	6,310,472.00	0
User Defined Industrial	6,310.47	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Winter

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.60
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.12
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.05
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.23
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	6,310,470.00	6,310,472.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Winter

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	23.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	5,931.84	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

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tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
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tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
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tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
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tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
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tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
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tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
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tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

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tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
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tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005

tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
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tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
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tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28

tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
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tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
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tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02

tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003

tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4190e-003
tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
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tblVehicleEF	OBUS	0.29	0.86

tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003

tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94

tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	ST_TR	0.00	0.03
tblVehicleTrips	SU_TR	1.68	0.05
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	1.68	1.38
tblVehicleTrips	WD_TR	0.00	0.36
tblWater	IndoorWaterUseRate	1,459,296,187.50	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Energy	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
Mobile	16.5400	355.9762	204.9271	2.1192	158.0756	2.6792	160.7548	43.2136	2.5566	45.7703		226,808.1338	226,808.1338	1.3209		226,841.1561
Offroad	2.6116	4.4577	16.7501	0.0901		0.1651	0.1651		0.1651	0.1651		8,529.6549	8,529.6549	0.2251		8,535.2833
Total	**103.7153**	**362.8692**	**224.9936**	**2.2239**	**158.0756**	**3.0330**	**161.1086**	**43.2136**	**2.9105**	**46.1241**		**238,249.1649**	**238,249.1649**	**1.6089**	**0.0533**	**238,305.2779**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Energy	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
Mobile	16.5400	355.9762	204.9271	2.1192	158.0756	2.6792	160.7548	43.2136	2.5566	45.7703		226,808.1338	226,808.1338	1.3209		226,841.1561
Offroad	2.6116	4.4577	16.7501	0.0901		0.1651	0.1651		0.1651	0.1651		8,529.6549	8,529.6549	0.2251		8,535.2833
Total	**103.7153**	**362.8692**	**224.9936**	**2.2239**	**158.0756**	**3.0330**	**161.1086**	**43.2136**	**2.9105**	**46.1241**		**238,249.1649**	**238,249.1649**	**1.6089**	**0.0533**	**238,305.2779**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.5400	355.9762	204.9271	2.1192	158.0756	2.6792	160.7548	43.2136	2.5566	45.7703		226,808.1338	226,808.1338	1.3209		226,841.1561
Unmitigated	16.5400	355.9762	204.9271	2.1192	158.0756	2.6792	160.7548	43.2136	2.5566	45.7703		226,808.1338	226,808.1338	1.3209		226,841.1561

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	8,736.85	753.47	301.01	27,391,071	27,391,071
User Defined Industrial	2,243.37	193.10	77.62	23,894,173	23,894,173
Total	10,980.22	946.57	378.63	51,285,244	51,285,244

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.116800	0.052600	0.226900	0.603700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
NaturalGas Unmitigated	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	24723.2	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2666**	**2.4239**	**2.0360**	**0.0145**		**0.1842**	**0.1842**		**0.1842**	**0.1842**		**2,908.6140**	**2,908.6140**	**0.0558**	**0.0533**	**2,925.8985**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	24.7232	0.2666	2.4239	2.0360	0.0145		0.1842	0.1842		0.1842	0.1842		2,908.6140	2,908.6140	0.0558	0.0533	2,925.8985
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2666**	**2.4239**	**2.0360**	**0.0145**		**0.1842**	**0.1842**		**0.1842**	**0.1842**		**2,908.6140**	**2,908.6140**	**0.0558**	**0.0533**	**2,925.8985**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Unmitigated	84.2971	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.0269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.1531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.1172	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Total	**84.2971**	**0.0115**	**1.2804**	**1.0000e-004**		**4.5400e-003**	**4.5400e-003**		**4.5400e-003**	**4.5400e-003**		**2.7621**	**2.7621**	**7.1200e-003**		**2.9400**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.0269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.1531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.1172	0.0115	1.2804	1.0000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003		2.7621	2.7621	7.1200e-003		2.9400
Total	**84.2971**	**0.0115**	**1.2804**	**1.0000e-004**		**4.5400e-003**	**4.5400e-003**		**4.5400e-003**	**4.5400e-003**		**2.7621**	**2.7621**	**7.1200e-003**		**2.9400**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	23	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/Backhoes	2.6116	4.4577	16.7501	0.0901		0.1651	0.1651		0.1651	0.1651		8,529.6549	8,529.6549	0.2251		8,535.2833
Total	**2.6116**	**4.4577**	**16.7501**	**0.0901**		**0.1651**	**0.1651**		**0.1651**	**0.1651**		**8,529.6549**	**8,529.6549**	**0.2251**		**8,535.2833**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.6:

SCAQMD AMICUS BRIEF

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S219783

IN THE SUPREME COURT OF C ALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,

Plaintiffs and Appellants,

v.

COUNTY OF FRESNO,

Defendant and Respondent,

and,

FRIANT RANCH, L.P.,

Real Party in Interest and Respondent.

SUPREME COURT
FILED
APR 13 2015
Frank A. McGuire Clerk
Deputy

After a Published Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726
Honorable Rosendo A. Pena, Jr.

APPLICATION OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT FOR LEAVE TO FILE BRIEF OF *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY AND *[PROPOSED]* BRIEF OF *AMICUS CURIAE*

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TO THE HONORABLE CHIEF JUSTICE AND JUSTICES OF THE SUPREME COURT:

APPLICATION FOR LEAVE TO FILE *AMICUS CURIAE* BRIEF

Pursuant to Rule 8.520(f) of the California Rules of Court, the South Coast Air Quality Management District (SCAQMD) respectfully requests leave to file the attached *amicus curiae* brief. Because SCAQMD's position differs from that of either party, we request leave to submit this amicus brief in support of neither party.

HOW THIS BRIEF WILL ASSIST THE COURT

SCAQMD's proposed amicus brief takes a position on two of the issues in this case. In both instances, its position differs from that of either party. The issues are:

1) Does the California Environmental Quality Act (CEQA) require an environmental impact report (EIR) to correlate a project's air pollution emissions with specific levels of health impacts?
2) What is the proper standard of review for determining whether an EIR provides sufficient information on the health impacts caused by a project's emission of air pollutants?

This brief will assist the Court by discussing the practical realities of correlating identified air quality impacts with specific health outcomes. In short, CEQA requires agencies to provide detailed information about a project's air quality impacts that is sufficient for the public and decisionmakers to adequately evaluate the project and meaningfully understand its impacts. However, the level of analysis is governed by a rule of reason; CEQA only requires agencies to conduct analysis if it is reasonably feasible to do so.

With regard to health-related air quality impacts, an analysis that correlates a project's air pollution emissions with specific levels of health impacts will be feasible in some cases but not others. Whether it is feasible depends on a variety of factors, including the nature of the project and the nature of the analysis under consideration. The feasibility of analysis may also change over time as air districts and others develop new tools for measuring projects' air quality related health impacts. Because SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, it is uniquely situated to express an opinion on the extent to which the Court should hold that CEQA requires lead agencies to correlate air quality impacts with specific health outcomes.

SCAQMD can also offer a unique perspective on the question of the appropriate standard of review. SCAQMD submits that the proper standard of review for determining whether an EIR is sufficient as an informational document is more nuanced than argued by either party. In our view, this is a mixed question of fact and law. It includes determining whether additional analysis is feasible, which is primarily a factual question that should be reviewed under the substantial evidence standard. However, it also involves determining whether the omission of a particular analysis renders an EIR insufficient to serve CEQA's purpose as a meaningful, informational document. If a lead agency has not determined that a requested analysis is infeasible, it is the court's role to determine whether the EIR nevertheless meets CEQA's purposes, and courts should not defer to the lead agency's conclusions regarding the legal sufficiency of an EIR's analysis. The ultimate question of whether an EIR's analysis is "sufficient" to serve CEQA's informational purposes is predominately a question of law that courts should review de novo.

This brief will explain the rationale for these arguments and may assist the Court in reaching a conclusion that accords proper respect to a lead agency's factual conclusions while maintaining judicial authority over the ultimate question of what level of analysis CEQA requires.

STATEMENT OF INTEREST OF *AMICUS CURIAE*

The SCAQMD is the regional agency primarily responsible for air pollution control in the South Coast Air Basin, which consists of all of Orange County and the non-desert portions of the Los Angeles, Riverside, and San Bernardino Counties. (Health & Saf. Code § 40410; Cal. Code Regs., tit. 17, § 60104.) The SCAQMD participates in the CEQA process in several ways. Sometimes it acts as a lead agency that prepares CEQA documents for projects. Other times it acts as a responsible agency when it has permit authority over some part of a project that is undergoing CEQA review by a different lead agency. Finally, SCAQMD also acts as a commenting agency for CEQA documents that it receives because it is a public agency with jurisdiction by law over natural resources affected by the project.

In all of these capacities, SCAQMD will be affected by the decision in this case. SCAQMD sometimes submits comments requesting that a lead agency perform an additional type of air quality or health impacts analysis. On the other hand, SCAQMD sometimes determines that a particular type of health impact analysis is not feasible or would not produce reliable and informative results. Thus, SCAQMD will be affected by the Court's resolution of the extent to which CEQA requires EIRs to correlate emissions and health impacts, and its resolution of the proper standard of review.

CERTIFICATION REGARDING AUTHORSHIP AND FUNDING

No party or counsel in the pending case authored the proposed amicus curiae brief in whole or in part, or made any monetary contribution intended to fund the preparation or submission of the brief. No person or entity other than the proposed *Amicus Curiae* made any monetary contribution intended to fund the preparation or submission of the brief.

Respectfully submitted,

DATED: April 3, 2015

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BRIEF OF AMICUS CURIAE

SUMMARY OF ARGUMENT

The South Coast Air Quality Management District (SCAQMD) submits that this Court should not try to establish a hard-and-fast rule concerning whether lead agencies are required to correlate emissions of air pollutants with specific health consequences in their environmental impact reports (EIR). The level of detail required in EIRs is governed by a few, core CEQA (California Environmental Quality Act) principles. As this Court has stated, "[a]n EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Laurel Heights Improvement Assn. v. Regents of the Univ of Cal.* (1988) 47 Cal.3d 376, 405 ["*Laurel Heights I*"]) Accordingly, "an agency must use its best efforts to find out and disclose all that it reasonably can." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 428 (quoting CEQA Guidelines § 15144)[1].). However, "[a]nalysis of environmental effects need not be exhaustive, but will be judged in light of what is reasonably feasible." (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390; CEQA Guidelines §§ 15151, 15204(a).)

With regard to analysis of air quality related health impacts, EIRs must generally quantify a project's pollutant emissions, but in some cases it is not feasible to correlate these emissions to specific, quantifiable health impacts (e.g., premature mortality; hospital admissions). In such cases, a general description of the adverse health impacts resulting from the pollutants at issue may be sufficient. In other cases, due to the magnitude

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[1] The CEQA Guidelines are found at Cal. Code Regs., tit. 14 §§ 15000, *et seq*.

or nature of the pollution emissions, as well as the specificity of the project involved, it may be feasible to quantify health impacts. Or there may be a less exacting, but still meaningful analysis of health impacts that can feasibly be performed. In these instances, agencies should disclose those impacts.

SCAQMD also submits that whether or not an EIR complies with CEQA's informational mandates by providing sufficient, feasible analysis is a mixed question of fact and law. Pertinent here, the question of whether an EIR's discussion of health impacts from air pollution is sufficient to allow the public to understand and consider meaningfully the issues involves two inquiries: (1) Is it feasible to provide the information or analysis that a commenter is requesting or a petitioner is arguing should be required?; and (2) Even if it is feasible, is the agency relying on other policy or legal considerations to justify not preparing the requested analysis? The first question of whether an analysis is feasible is primarily a question of fact that should be judged by the substantial evidence standard. The second inquiry involves evaluating CEQA's information disclosure purposes against the asserted reasons to not perform the requested analysis. For example, an agency might believe that its EIR meets CEQA's informational disclosure standards even without a particular analysis, and therefore choose not to conduct that analysis. SCAQMD submits that this is more of a legal question, which should be reviewed de novo as a question of law.

ARGUMENT

I. RELEVANT FACTUAL AND LEGAL FRAMEWORK.

A. Air Quality Regulatory Background

The South Coast Air Quality Management District (SCAQMD) is one of the local and regional air pollution control districts and air quality

management districts in California. The SCAQMD is the regional air pollution agency for the South Coast Air Basin, which consists of all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. (Health & Saf. Code § 40410, 17 Cal. Code Reg. § 60104.) The SCAQMD also includes the Coachella Valley in Riverside County (Palm Springs area to the Salton Sea). (SCAQMD, *Final 2012 AQMP (Feb. 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "chapter 7" hyperlink; pp 7-1, 7-3 (last visited Apr. 1, 2015).) The SCAQMD's jurisdiction includes over 16 million residents and has the worst or nearly the worst air pollution levels in the country for ozone and fine particulate matter. (SCAQMD, *Final 2012 AQMP (Feb. 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "Executive Summary" hyperlink p. ES-1 (last visited Apr. 1, 2015).)

Under California law, the local and regional districts are primarily responsible for controlling air pollution from all sources except motor vehicles. (Health & Saf. Code § 40000.) The California Air Resources Board (CARB), part of the California Environmental Protection Agency, is primarily responsible for controlling pollution from motor vehicles. (*Id.*) The air districts must adopt rules to achieve and maintain the state and federal ambient air quality standards within their jurisdictions. (Health & Saf. Code § 40001.)

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (EPA) to identify pollutants that are widely distributed and pose a threat to human health, developing a so-called "criteria" document. (42 U.S.C. § 7408; CAA § 108.) These pollutants are frequently called "criteria pollutants." EPA must then establish "national ambient air quality standards" at levels "requisite to protect public health",

allowing "an adequate margin of safety." (42 U.S.C. § 7409; CAA § 109.) EPA has set standards for six identified pollutants: ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, particulate matter (PM), and lead. (U.S. EPA, National Ambient Air Quality Standards (NAAQS), http://www.epa.gov/air/criteria.html (last updated Oct. 21, 2014).)[2]

Under the Clean Air Act, EPA sets emission standards for motor vehicles and "nonroad engines" (mobile farm and construction equipment, marine vessels, locomotives, aircraft, etc.). (42 U.S.C. §§ 7521, 7547; CAA §§ 202, 213.) California is the only state allowed to establish emission standards for motor vehicles and most nonroad sources; however, it may only do so with EPA's approval. (42 U.S.C. §§ 7543(b), 7543(e); CAA §§ 209(b), 209(c).) Sources such as manufacturing facilities, power plants and refineries that are not mobile are often referred to as "stationary sources." The Clean Air Act charges state and local agencies with the primary responsibility to attain the national ambient air quality standards. (42 U.S.C. § 7401(a)(3); CAA § 101(a)(3).) Each state must adopt and implement a plan including enforceable measures to achieve and maintain the national ambient air quality standards. (42 U.S.C. § 7410; CAA § 110.) The SCAQMD and CARB jointly prepare portion of the plan for the South Coast Air Basin and submit it for approval by EPA. (Health & Saf. Code §§ 40460, et seq.)

The Clean Air Act also requires state and local agencies to adopt a permit program requiring, among other things, that new or modified "major" stationary sources use technology to achieve the "lowest achievable emission rate," and to control minor stationary sources as

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[2] Particulate matter (PM) is further divided into two categories: fine particulate or $PM_{2.5}$ (particles with a diameter of less than or equal to 2.5 microns) and coarse particulate (PM_{10}) (particles with a diameter of 10 microns or less). (U.S. EPA, Particulate Matter (PM), http://www.epa.gov/airquality/particlepollution/ (last visited Apr. 1, 2015).)

needed to help attain the standards. (42 U.S.C. §§ 7502(c)(5), 7503(a)(2), 7410(a)(2)(C); CAA §§ 172(c)(5), 173(a)(2), 110(a)(2)(C).) The air districts implement these permit programs in California. (Health & Saf. Code §§ 42300, et seq.)

The Clean Air Act also sets out a regulatory structure for over 100 so-called "hazardous air pollutants" calling for EPA to establish "maximum achievable control technology" (MACT) for sources of these pollutants. (42 U.S.C. § 7412(d)(2); CAA § 112(d)(2).) California refers to these pollutants as "toxic air contaminants" (TACs) which are subject to two state-required programs. The first program requires "air toxics control measures" for specific categories of sources. (Health & Saf. Code § 39666.) The other program requires larger stationary sources and sources identified by air districts to prepare "health risk assessments" for impacts of toxic air contaminants. (Health & Saf. Code §§ 44320(b), 44322, 44360.) If the health risk exceeds levels identified by the district as "significant," the facility must implement a "risk reduction plan" to bring its risk levels below "significant" levels. Air districts may adopt additional more stringent requirements than those required by state law, including requirements for toxic air contaminants. (Health & Saf. Code § 41508; *Western Oil & Gas Assn. v. Monterey Bay Unified APCD* (1989) 49 Cal.3d 408, 414.) For example, SCAQMD has adopted a rule requiring new or modified sources to keep their risks below specified levels and use best available control technology (BACT) for toxics. (SCAQMD, *Rule 1401-New Source Review of Toxic Air Contaminants*, http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book/regulation-xiv; then follow "Rule 1401" hyperlink (last visited Apr. 1, 2015).)

B. The SCAQMD's Role Under CEQA

The California Environmental Quality Act (CEQA) requires public agencies to perform an environmental review and appropriate analysis for projects that they implement or approve. (Pub. Resources Code § 21080(a).) The agency with primary approval authority for a particular project is generally the "lead agency" that prepares the appropriate CEQA document. (CEQA Guidelines §§ 15050, 15051.) Other agencies having a subsequent approval authority over all or part of a project are called "responsible" agencies that must determine whether the CEQA document is adequate for their use. (CEQA Guidelines §§ 15096(c), 15381.) Lead agencies must also consult with and circulate their environmental impact reports to "trustee agencies" and agencies "with jurisdiction by law" including "authority over resources which may be affected by the project." (Pub. Resources Code §§ 21104(a), 21153; CEQA Guidelines §§ 15086(a)(3), 15073(c).) The SCAQMD has a role in all these aspects of CEQA.

Fulfilling its responsibilities to implement its air quality plan and adopt rules to attain the national ambient air quality standards, SCAQMD adopts a dozen or more rules each year to require pollution reductions from a wide variety of sources. The SCAQMD staff evaluates each rule for any adverse environmental impact and prepares the appropriate CEQA document. Although most rules reduce air emissions, they may have secondary environmental impacts such as use of water or energy or disposal of waste—e.g., spent catalyst from control equipment.[3]

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[3] The SCAQMD's CEQA program for its rules is a "Certified Regulatory Program" under which it prepares a "functionally equivalent" document in lieu of a negative declaration or EIR. (Pub. Resources Code § 21080.5, CEQA Guidelines § 15251(l).)

The SCAQMD also approves a large number of permits every year to construct new, modified, or replacement facilities that emit regulated air pollutants. The majority of these air pollutant sources have already been included in an earlier CEQA evaluation for a larger project, are currently being evaluated by a local government as lead agency, or qualify for an exemption. However, the SCAQMD sometimes acts as lead agency for major projects where the local government does not have a discretionary approval. In such cases, SCAQMD prepares and certifies a negative declaration or environmental impact report (EIR) as appropriate.[4] SCAQMD evaluates perhaps a dozen such permit projects under CEQA each year. SCAQMD is often also a "responsible agency" for many projects since it must issue a permit for part of the projects (e.g., a boiler used to provide heat in a commercial building). For permit projects evaluated by another lead agency under CEQA, SCAQMD has the right to determine that the CEQA document is inadequate for its purposes as a responsible agency, but it may not do so because its permit program already requires all permitted sources to use the best available air pollution control technology. (SCAQMD, *Rule 1303(a)(1) – Requirements*, http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book/regulation-xiii; then follow "Rule 1303" hyperlink (last visited Apr. 1, 2015).)

Finally, SCAQMD receives as many as 60 or more CEQA documents each month (around 500 per year) in its role as commenting agency or an agency with "jurisdiction by law" over air quality—a natural resource affected by the project. (Pub. Resources Code §§ 21104(a), 21153; CEQA Guidelines § 15366(a)(3).) The SCAQMD staff provides comments on as many as 25 or 30 such documents each month.

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[4] The SCAQMD's permit projects are not included in its Certified Regulatory Program, and are evaluated under the traditional local government CEQA analysis. (Pub. Resources Code §§ 21150-21154.)

(SCAQMD Governing Board Agenda, Apr. 3, 2015, Agenda Item 16, Attachment A, http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=governing-board-meeting-agenda-april-3-2015; then follow "16. Lead Agency Projects and Environmental Documents Received by SCAQMD" hyperlink (last visited Apr. 1, 2015).) Of course, SCAQMD focuses its commenting efforts on the more significant projects.

Typically, SCAQMD comments on the adequacy of air quality analysis, appropriateness of assumptions and methodology, and completeness of the recommended air quality mitigation measures. Staff may comment on the need to prepare a health risk assessment detailing the projected cancer and noncancer risks from toxic air contaminants resulting from the project, particularly the impacts of diesel particulate matter, which CARB has identified as a toxic air contaminant based on its carcinogenic effects. (California Air Resources Board, Resolution 98-35, Aug. 27, 1998, http://www.arb.ca.gov/regact/diesltac/diesltac.htm; then follow Resolution 98-35 hyperlink (last visited Apr. 1, 2015).) Because SCAQMD already requires new or modified stationary sources of toxic air contaminants to use the best available control technology for toxics and to keep their risks below specified levels, (SCAQMD Rule 1401, supra, note 15), the greatest opportunity to further mitigate toxic impacts through the CEQA process is by reducing emissions—particularly diesel emissions—from vehicles.

II. THIS COURT SHOULD NOT SET A HARD-AND-FAST RULE CONCERNING THE EXTENT TO WHICH AN EIR MUST CORRELATE A PROJECT'S EMISSION OF POLLUTANTS WITH RESULTING HEALTH IMPACTS.

Numerous cases hold that courts do not review the correctness of an EIR's conclusions but rather its sufficiency as an informative document. (*Laurel Heights 1, supra*, 47 Cal.3d at p. 392; *Citizens of Goleta Valley v.*

Bd. of Supervisors (1990) 52 Cal.3d 553, 569; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1197.)

As stated by the Court of Appeal in this case, where an EIR has addressed a topic, but the petitioner claims that the information provided about that topic is insufficient, courts must "draw[] a line that divides *sufficient* discussions from those that are *insufficient*." (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 (superseded by grant of review) 172 Cal.Rptr.3d 271, 290.) The Court of Appeal readily admitted that "[t]he terms themselves – sufficient and insufficient – provide little, if any, guidance as to where the line should be drawn. They are simply labels applied once the court has completed its analysis." (*Id.*)

The CEQA Guidelines, however, provide guidance regarding what constitutes a sufficient discussion of impacts. Section 15151 states that "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." Case law reflects this: "Analysis of environmental effects need not be exhaustive, but will be judged in light of what was reasonably feasible." (*Association of Irritated Residents v. County of Madera, supra,* 107 Cal.App.4th at p. 1390; see also CEQA Guidelines § 15204(a).)

Applying this test, this Court cannot realistically establish a hard-and-fast rule that an analysis correlating air pollution impacts of a project to quantified resulting health impacts is always required, or indeed that it is never required. Simply put, in some cases such an analysis will be "feasible"; in some cases it will not.

For example, air pollution control districts often require a proposed new source of toxic air contaminants to prepare a "health risk assessment" before issuing a permit to construct. District rules often limit the allowable cancer risk the new source may cause to the "maximally exposed individual" (worker and residence exposures). (*See, e.g.*, SCAQMD Rule 1401(c)(8); 1401(d)(1), *supra* note 15.) In order to perform this analysis, it

is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). (SCAQMD, *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (AB2588), pp. 11-16*; (last visited Apr. 1, 2015) http://www.aqmd.gov/home/library/documents-support-material; "Guidelines" hyperlink; AB2588; then follow AB2588 Risk Assessment Guidelines hyperlink.)

Thus, it is feasible to determine the health risk posed by a new gas station locating at an intersection in a mixed use area, where receptor locations are known. On the other hand, it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk—it does not necessarily mean anyone will contract cancer as a result of the project.

In order to find the "cancer burden" or expected additional cases of cancer resulting from the project, it is also necessary to know the numbers and location of individuals living within the "zone of impact" of the project: i.e., those living in areas where the projected cancer risk from the project exceeds one in a million. (SCAQMD, Health Risk Assessment Summary form, http://www.aqmd.gov/home/forms ; filter by "AB2588" category; then "Health Risk Assessment" hyperlink (last visited Apr. 1, 2015).) The affected population is divided into bands of those exposed to at least 1 in a million risk, those exposed to at least 10 in a million risk, etc. up to those exposed at the highest levels. (*Id.*) This data allows agencies to calculate an approximate number of additional cancer cases expected from

the project. However, it is not possible to predict which particular individuals will be affected.

For the so-called criteria pollutants[5], such as ozone, it may be more difficult to quantify health impacts. Ozone is formed in the atmosphere from the chemical reaction of the nitrogen oxides (NO_x) and volatile organic compounds (VOC) in the presence of sunlight. (U.S. EPA, Ground Level Ozone, http://www.epa.gov/airquality/ozonepollution/ (last updated Mar. 25, 2015).) It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. (U.S. EPA, *Guideline on Ozone Monitoring Site Selection* (Aug. 1998) EPA-454/R-98-002 § 5.1.2, http://www.epa.gov/ttnamti1/archive/cpreldoc.html (last visited Apr. 1, 2015).) NO_x and VOC are known as "precursors" of ozone.

Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes. (U.S. EPA, *Health Effects of Ozone in the General Population,* Figure 9, http://www.epa.gov/apti/ozonehealth/population.html#levels (last visited Apr. 1, 2015).) However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP showed that reducing NO_x by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. (South Coast Air Quality Management District, *Final 2012 AQMP (February 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "Appendix V: Modeling & Attainment Demonstrations" hyperlink,

[5] See discussion of types of pollutants, supra, Part I.A.

pp. v-4-2, v-7-4, v-7-24.) SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects.

On the other hand, this type of analysis may be feasible for projects on a regional scale with very high emissions of NO_x and VOCs, where impacts are regional. For example, in 2011 the SCAQMD performed a health impact analysis in its CEQA document for proposed Rule 1315, which authorized various newly-permitted sources to use offsets from the districts "internal bank" of emission reductions. This CEQA analysis accounted for essentially *all* the increases in emissions due to new or modified sources in the District between 2010 and 2030.[6] The SCAQMD was able to correlate this very large emissions increase (e.g., 6,620 pounds per day NO_x (1,208 tons per year), 89,180 pounds per day VOC (16,275 tons per year)) to expected health outcomes from ozone and particulate matter (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to ozone).[7] (SCAQMD Governing Board Agenda, February 4, 2011, Agenda Item 26, *Assessment for: Re-adoption of Proposed Rule 1315 – Federal New Source Review Tracking System* (see hyperlink in fn 6*)* at p. 4.1-35, Table 4.1-29.)

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[6] (SCAQMD Governing Board Agenda, February 4, 2011, Agenda Item 26, Attachment G, *Assessment for: Re-adoption of Proposed Rule 1315 – Federal New Source Review Tracking System, Vol. 1, p.4.0-6,* http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=governing-board-meeting-agenda-february-4-2011; the follow "26. Adopt Proposed Rule 1315 – Federal New Source Review Tracking System" (last visited April 1, 2015).)

[7] The SCAQMD was able to establish the location of future NO_x and VOC emissions by assuming that new projects would be built in the same locations and proportions as existing stationary sources. This CEQA document was upheld by the Los Angeles County Superior Court in *Natural Res. Def. Council v SCAQMD*, Los Angeles Superior Court No. BS110792).

However, a project emitting only 10 tons per year of NO_x or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models that are currently used to determine ozone levels. Thus, in this case it would not be feasible to directly correlate project emissions of VOC or NO_x with specific health impacts from ozone. This is in part because ozone formation is not linearly related to emissions. Ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology and seasonal impacts, and because ozone is formed some time later and downwind from the actual emission. (EPA Guideline on Ozone Monitoring Site Selection (Aug. 1998) EPA-454/R-98-002, § 5.1.2; https://www.epa.gov/ttnamti1/archive/cpreldoc.html; then search "Guideline on Ozone Monitoring Site Selection" click on pdf) (last viewed Apr. 1, 2015).)

SCAQMD has set its CEQA "significance" threshold for NO_x and VOC at 10 tons per year (expressed as 55 lb/day). (SCAQMD, *Air Quality Analysis Handbook*, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook; then follow "SCAQMD Air Quality Significance Thresholds" hyperlink (last visited Apr. 1, 2015).) This is because the federal Clean Air Act defines a "major" stationary source for "extreme" ozone nonattainment areas such as SCAQMD as one emitting 10 tons/year. (42 U.S.C. §§ 7511a(e), 7511a(f); CAA §§ 182(e), 182(f).) Under the Clean Air Act, such sources are subject to enhanced control requirements (42 U.S.C. §§ 7502(c)(5), 7503; CAA §§ 172(c)(5), 173), so SCAQMD decided this was an appropriate threshold for making a CEQA "significance" finding and requiring feasible mitigation. Essentially, SCAQMD takes the position that a source that emits 10 tons/year of NO_x or VOC would contribute cumulatively to ozone formation. Therefore, lead agencies that use SCAQMD's thresholds of significance may determine

that many projects have "significant" air quality impacts and must apply all feasible mitigation measures, yet will not be able to precisely correlate the project to quantifiable health impacts, unless the emissions are sufficiently high to use a regional modeling program.

In the case of particulate matter ($PM_{2.5}$)[8], another "criteria" pollutant, SCAQMD staff is aware of two possible methods of analysis. SCAQMD used regional modeling to predict expected health impacts from its proposed Rule 1315, as mentioned above. Also, the California Air Resources Board (CARB) has developed a methodology that can predict expected mortality (premature deaths) from large amounts of $PM_{2.5}$. (California Air Resources Board, *Health Impacts Analysis: PM Premature Death Relationship*, http://www.arb.ca.gov/research/health/pm-mort/pm-mort_arch.htm (last reviewed Jan. 19, 2012).) SCAQMD used the CARB methodology to predict impacts from three very large power plants (e.g., 731-1837 lbs/day). (Final Environmental Assessment for Rule 1315, *supra*, pp 4.0-12, 4.1-13, 4.1-37 (e.g., 125 premature deaths in the entire SCAQMD in 2030), 4.1-39 (0.05 to 1.77 annual premature deaths from power plants.) Again, this project involved large amounts of additional $PM_{2.5}$ in the District, up to 2.82 tons/day (5,650 lbs/day of $PM_{2.5}$, or, or 1029 tons/year. (*Id.* at table 4.1-4, p. 4.1-10.)

However, the primary author of the CARB methodology has reported that this $PM_{2.5}$ health impact methodology is not suited for small projects and may yield unreliable results due to various uncertainties.[9] (SCAQMD, *Final Subsequent Mitigated Negative Declaration for: Warren*

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[8] SCAQMD has not attained the latest annual or 24-hour national ambient air quality standards for "$PM_{2.5}$" or particulate matter less than 2.5 microns in diameter.

[9] Among these uncertainties are the representativeness of the population used in the methodology, and the specific source of PM and the corresponding health impacts. (*Id.* at p. 2-24.)

E&P, Inc. WTU Central Facility, New Equipment Project (certified July 19, 2011), http://www.aqmd.gov/home/library/documents-support-material/lead-agency-permit-projects/permit-project-documents---year-2011; then follow "Final Subsequent Mitigated Negative Declaration for Warren E&P Inc. WTU Central Facility, New Equipment Project" hyperlink, pp. 2-22, 2-23 (last visited Apr. 1, 2015).) Therefore, when SCAQMD prepared a CEQA document for the expansion of an existing oil production facility, with very small $PM_{2.5}$ increases (3.8 lb/day) and a very small affected population, staff elected not to use the CARB methodology for using estimated $PM_{2.5}$ emissions to derive a projected premature mortality number and explained why it would be inappropriate to do so. (*Id.* at pp 2-22 to 2-24.) SCAQMD staff concluded that use of this methodology for such a small source could result in unreliable findings and would not provide meaningful information. (*Id.* at pp. 2-23, 2-25.) This CEQA document was not challenged in court.

In the above case, while it may have been technically possible to plug the data into the methodology, the results would not have been reliable or meaningful. SCAQMD believes that an agency should not be required to perform analyses that do not produce reliable or meaningful results. This Court has already held that an agency may decline to use even the "normal" "existing conditions" CEQA baseline where to do so would be misleading or without informational value. (*Neighbors for Smart Rail v. Exposition Metro Line* (2013) 57 Cal.4th 439, 448, 457.) The same should be true for a decision that a particular study or analysis would not provide reliable or meaningful results.[10]

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[10] Whether a particular study would result in "informational value" is a part of deciding whether it is "feasible." CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and

Therefore, it is not possible to set a hard-and-fast rule on whether a correlation of air quality impacts with specific quantifiable health impacts is required in all cases. Instead, the result turns on whether such an analysis is reasonably feasible in the particular case.[11] Moreover, what is reasonably feasible may change over time as scientists and regulatory agencies continually seek to improve their ability to predict health impacts. For example, CARB staff has been directed by its Governing Board to reassess and improve the methodology for estimating premature deaths. (California Air Resources Board, *Health Impacts Analysis: PM Mortality Relationship*, http://www.arb.ca.gov/research/health/pm-mort/pm-mort.htm (last reviewed Dec. 29, 2010).) This factor also counsels against setting any hard-and-fast rule in this case.

III. THE QUESTION OF WHETHER AN EIR CONTAINS SUFFICIENT ANALYSIS TO MEET CEQA'S REQUIREMENTS IS A MIXED QUESTION OF FACT AND LAW GOVERNED BY TWO DIFFERENT STANDARDS OF REVIEW.

A. Standard of Review for Feasibility Determination and Sufficiency as an Informative Document

A second issue in this case is whether courts should review an EIR's informational sufficiency under the "substantial evidence" test as argued by Friant Ranch or the "independent judgment" test as argued by Sierra Club.

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technological factors." (Pub. Resources Code § 21061.1.) A study cannot be "accomplished in a *successful* manner" if it produces unreliable or misleading results.

[11] In this case, the lead agency did not have an opportunity to determine whether the requested analysis was feasible because the comment was non-specific. Therefore, SCAQMD suggests that this Court, after resolving the legal issues in the case, direct the Court of Appeal to remand the case to the lead agency for a determination of whether the requested analysis is feasible. Because Fresno County, the lead agency, did not seek review in this Court, it seems likely that the County has concluded that at least some level of correlation of air pollution with health impacts is feasible.

As this Court has explained, "a reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts." (*Vineyard Area Citizens v. City of Rancho Cordova, supra,* 40 Cal.4th at 435.) For questions regarding compliance with proper procedure or other legal questions, courts review an agency's action de novo under the "independent judgment" test. (*Id.*) On the other hand, courts review factual disputes only for substantial evidence, thereby "accord[ing] greater deference to the agency's substantive factual conclusions." (*Id.*)

Here, Friant Ranch and Sierra Club agree that the case involves the question of whether an EIR includes sufficient information regarding a project's impacts. However, they disagree on the proper standard of review for answering this question: Sierra Club contends that courts use the independent judgment standard to determine whether an EIR's analysis is sufficient to meet CEQA's informational purposes,[12] while Friant Ranch contends that the substantial evidence standard applies to this question.

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[12] Sierra Club acknowledges that courts use the substantial evidence standard when reviewing predicate factual issues, but argues that courts ultimately decide as a matter of law what CEQA requires. (Answering Brief, pp. 14, 23.)

SCAQMD submits that the issue is more nuanced than either party contends. We submit that, whether a CEQA document includes sufficient analysis to satisfy CEQA's informational mandates is a mixed question of fact and law,[13] containing two levels of inquiry that should be judged by different standards.[14]

The state CEQA Guidelines set forth standards for the adequacy of environmental analysis. Guidelines Section 15151 states:

> An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

In this case, the basic question is whether the underlying analysis of air quality impacts made the EIR "sufficient" as an informative document. However, whether the EIR's analysis was sufficient is judged in light of what was reasonably feasible. This represents a mixed question of fact and law that is governed by two different standards of review.

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[13] Friant Ranch actually states that the claim that an EIR lacks sufficient relevant information is, "most properly thought of as raising mixed questions of fact and law." (Opening Brief, p. 27.) However, the remainder of its argument claims that the court should apply the substantial evidence standard of review to all aspects of the issue.

[14] Mixed questions of fact and law issues may implicate predominantly factual subordinate questions that are reviewed under the substantial evidence test even though the ultimate question may be reviewed by the independent judgment test. *Crocker National Bank v. City and County of San Francisco* (1989) 49 Cal.3d 881, 888-889.

SCAQMD submits that an EIR's sufficiency as an informational document is ultimately a legal question that courts should determine using their independent judgment. This Court's language in *Laurel Heights I* supports this position. As this Court explained: "The court does not pass upon the correctness of the EIR's environmental conclusions, but only upon its *sufficiency as an informative document.*" (*Laurel Heights I, supra*, 47 Cal.3d at 392-393) (emphasis added.) As described above, the Court in *Vineyard Area Citizens v. City of Rancho Cordova, supra,* 40 Cal.4th at 431, also used its independent judgment to determine what level of analysis CEQA requires for water supply impacts. The Court did not defer to the lead agency's opinion regarding the law's requirements; rather, it determined for itself what level of analysis was necessary to meet "[t]he law's informational demands." (*Id.* at p. 432.) Further, existing case law also holds that where an agency fails to comply with CEQA's information disclosure requirements, the agency has "failed to proceed in the manner required by law." (*Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118.)

However, whether an EIR satisfies CEQA's requirements depends in part on whether it was reasonably feasible for an agency to conduct additional or more thorough analysis. EIRs must contain "a detailed statement" of a project's impacts (Pub. Res. Code § 21061), and an agency must "use its best efforts to find out and disclose all that it reasonably can." (CEQA Guidelines § 15144.) Nevertheless, "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." (CEQA Guidelines § 15151.)

SCAQMD submits that the question of whether additional analysis or a particular study suggested by a commenter is "feasible" is generally a question of fact. Courts have already held that whether a particular alternative is "feasible" is reviewed by the substantial evidence test.

(*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 598-99; *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, 883.) Thus, if a lead agency determines that a particular study or analysis is infeasible, that decision should generally be judged by the substantial evidence standard. However, SCAQMD urges this Court to hold that lead agencies must explain the basis of any determination that a particular analysis is infeasible in the EIR itself. An EIR must discuss information, including issues related to the feasibility of particular analyses "in sufficient detail to enable meaningful participation and criticism by the public. '[W]hatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.'" (*Laurel Heights I, supra*, 47 Cal.3d at p. 405 (quoting *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831) (discussing analysis of alternatives).) The evidence on which the determination is based should also be summarized in the EIR itself, with appropriate citations to reference materials if necessary. Otherwise commenting agencies such as SCAQMD would be forced to guess where the lead agency's evidence might be located, thus thwarting effective public participation.

Moreover, if a lead agency determines that a particular study or analysis would not result in reliable or useful information and for that reason is not feasible, that determination should be judged by the substantial evidence test. (See *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority*, *supra*, 57 Cal.4th 439, 448, 457:

whether "existing conditions" baseline would be misleading or uninformative judged by substantial evidence standard.[15])

If the lead agency's determination that a particular analysis or study is not feasible is supported by substantial evidence, then the agency has not violated CEQA's information disclosure provisions, since it would be infeasible to provide additional information. This Court's decisions provide precedent for such a result. For example, this Court determined that the issue of whether the EIR should have included a more detailed discussion of future herbicide use was resolved because substantial evidence supported the agency's finding that "the precise parameters of future herbicide use could not be predicted." *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 955.

Of course, SCAQMD expects that courts will continue to hold lead agencies to their obligations to consult with, and not to ignore or misrepresent, the views of sister agencies having special expertise in the area of air quality. (*Berkeley Keep Jets Over the Bay v. Board of Port Commissioners* (2007) 91 Cal.App.4th 1344, 1364 n.11.) In some cases, information provided by such expert agencies may establish that the purported evidence relied on by the lead agency is not in fact "substantial". (*Id.* at pp. 1369-1371.)

In sum, courts retain ultimate responsibility to determine what CEQA requires. However, the law does not require exhaustive analysis, but only what is reasonably feasible. Agencies deserve deference for their factual determinations regarding what type of analysis is reasonably feasible. On the other hand, if a commenter requests more information, and the lead agency declines to provide it but does *not* determine that the

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[15] The substantial evidence standard recognizes that the courts "have neither the resources nor the scientific expertise" to weigh conflicting evidence on technical issues. (*Laurel Heights I, supra,* 47 Cal.3d 376, 393.)

requested study or analysis would be infeasible, misleading or uninformative, the question becomes whether the omission of that analysis renders the EIR inadequate to satisfy CEQA's informational purposes. (*Id.* at pp. 1370-71.) Again, this is predominantly a question of law and should be judged by the de novo or independent judgment standard of review. Of course, this Court has recognized that a "project opponent or reviewing court can always imagine some additional study or analysis that might provide helpful information. It is not for them to design the EIR. That further study...might be helpful does not make it necessary." (*Laurel Heights I, supra,* 47 Cal.3d 376, 415 – see also CEQA Guidelines § 15204(a) [CEQA "does not require a lead agency to conduct every test. . . recommended or demanded by commenters."].) Courts, then, must adjudicate whether an omission of particular information renders an EIR inadequate to serve CEQA's informational purposes.[16]

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[16] We recognize that there is case law stating that the substantial evidence standard applies to "challenges to the scope of an EIR's analysis of a topic" as well as the methodology used and the accuracy of the data relied on in the document "because these types of challenges involve factual questions." (*Bakersfield Citizens for Local Control v. City of Bakersfield, supra,* 124 Cal.App.4th 1184, 1198, and cases relied on therein.) However, we interpret this language to refer to situations where the question of the scope of the analysis really is factual—that is, where it involves whether further analysis is feasible, as discussed above. This interpretation is supported by the fact that the *Bakersfield* court expressly rejected an argument that a claimed "omission of information from the EIR should be treated as inquiries whether there is substantial evidence supporting the decision approving the project. " *Bakersfield, supra,* 124 Cal.App.4th at p. 1208. And the *Bakersfield* court ultimately decided that the lead agency must analyze the connection between the identified air pollution impacts and resulting health impacts, even though the EIR already included some discussion of air-pollution-related respiratory illnesses. *Bakersfield, supra,* 124 Cal.App.4th at p. 1220. Therefore, the court must not have interpreted this question as one of the "scope of the analysis" to be judged by the substantial evidence standard.

B. Friant Ranch's Rationale for Rejecting the Independent Judgment Standard of Review is Unsupported by Case Law.

In its brief, Friant Ranch makes a distinction between cases where a required CEQA topic is not discussed at all (to be reviewed by independent judgment as a failure to proceed in the manner required by law) and cases where a topic is discussed, but the commenter claims the information provided is insufficient (to be judged by the substantial evidence test). (Opening Brief, pp. 13-17.) The Court of Appeal recognized these two types of cases, but concluded that both raised questions of law. (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 (superseded by grant of review) 172 Cal.Rptr.3d 271, 290.) We believe the distinction drawn by Friant Ranch is unduly narrow, and inconsistent with cases which have concluded that CEQA documents are insufficient. In many instances, CEQA's requirements are stated broadly, and the courts must interpret the law to determine what level of analysis satisfies CEQA's mandate for providing meaningful information, even though the EIR discusses the issue to some extent.

For example, the CEQA Guidelines require discussion of the existing environmental baseline. In *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 954-955, the lead agency had discussed the environmental baseline by describing historic month-end water levels in the affected lakes. However, the court held that this was not an adequate baseline discussion because it failed to discuss the timing and amounts of past actual water releases, to allow comparison with the proposed project. The court evidently applied the independent judgment test to its decision, even though the agency discussed the issue to some extent.

Likewise, in *Vineyard Area Citizens* (2007) 40 Cal.4th 412, this Court addressed the question of whether an EIR's analysis of water supply impacts complied with CEQA. The parties agreed that the EIR was required to analyze the effects of providing water to the development project, "and that in order to do so the EIR had, in some manner, to identify the planned sources of that water." (*Vineyard Area Citizens, supra,* at p. 428.) However, the parties disagreed as to the level of detail required for this analysis and "what level of uncertainty regarding the availability of water supplies can be tolerated in an EIR . . . ." (*Id.*) In other words, the EIR had analyzed water supply impacts for the project, but the petitioner claimed that the analysis was insufficient.

This Court noted that neither CEQA's statutory language or the CEQA Guidelines specifically addressed the question of how precisely an EIR must discuss water supply impacts. (*Id.*) However, it explained that CEQA "states that '[w]hile foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can.'" (*Id.*, [Guidelines § 15144].) The Court used this general principle, along with prior precedent, to elucidate four "principles for analytical adequacy" that are necessary in order to satisfy "CEQA's informational purposes." (*Vineyard Area Citizens, supra,* at p. 430.) The Court did not defer to the agency's determination that the EIR's analysis of water supply impacts was sufficient. Rather, this Court used its independent judgment to determine for itself the level of analysis required to satisfy CEQA's fundamental purposes. (*Vineyard Area Citizens, supra*, at p. 441: an EIR does not serve its purposes where it neglects to explain likely sources of water and "... leaves long term water supply considerations to later stages of the project.")

Similarly, the CEQA Guidelines require an analysis of noise impacts of the project. (Appendix G, "Environmental Checklist Form."[17]) In *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1123, the court held that the lead agency's noise impact analysis was inadequate even though it had addressed the issue and concluded that the increase would not be noticeable. If the court had been using the substantial evidence standard, it likely would have upheld this discussion.

Therefore, we do not agree that the issue can be resolved on the basis suggested by Friant Ranch, which would apply the substantial evidence standard to *every* challenge to an analysis that addresses a required CEQA topic. This interpretation would subvert the courts' proper role in interpreting CEQA and determining what the law requires.

Nor do we agree that the Court of Appeal in this case violated CEQA's prohibition on courts interpreting its provisions "in a manner which imposes procedural or substantive requirements beyond those explicitly stated in this division or in the state guidelines." (Pub. Resources Code § 21083.1.) CEQA requires an EIR to describe *all* significant impacts of the project on the environment. (Pub. Resources Code § 21100(b)(2); *Vineyard Area Citizens, supra,* at p. 428.) Human beings are part of the environment, so CEQA requires EIRs to discuss a project's significant impacts on human health. However, except in certain particular circumstances,[18] neither the CEQA statute nor Guidelines specify the precise level of analysis that agencies must undertake to satisfy the law's requirements. (see, e.g., CEQA Guidelines § 15126.2(a) [EIRs must describe "health and safety problems caused by {a project's} physical changes"].) Accordingly, courts must interpret CEQA as a whole to

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[17] Association of Environmental Professionals, 2015 CEQA Statute and Guidelines (2015) p.287.

[18] E.g., Pub. Resources Code § 21151.8(C)(3)(B)(iii) (requiring specific type of health risk analysis for siting schools).

determine whether a particular EIR is sufficient as an informational document. A court determining whether an EIR's discussion of human health impacts is legally sufficient does not constitute imposing a new substantive requirement.[19] Under Friant Ranch's theory, the above-referenced cases holding a CEQA analysis inadequate would have violated the law. This is not a reasonable interpretation.

IV. COURTS MUST SCRUPULOUSLY ENFORCE THE REQUIREMENTS THAT LEAD AGENCIES CONSULT WITH AND OBTAIN COMMENTS FROM AIR DISTRICTS

Courts must "scrupulously enforce" CEQA's legislatively mandated requirements. (*Vineyard Area Citizens, supra*, 40 Cal.4th 412, 435.) Case law has firmly established that lead agencies must consult with the relevant air pollution control district before conducting an initial study, and must provide the districts with notice of the intention to adopt a negative declaration (or EIR). (*Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 958.) As *Schenck* held, neither publishing the notice nor providing it to the State Clearinghouse was a sufficient substitute for sending notice directly to the air district. (*Id.*) Rather, courts "must be satisfied that [administrative] agencies have fully complied with the procedural requirements of CEQA, since only in this way can the important public purposes of CEQA be protected from subversion." *Schenck,* 198 Cal.App.4th at p. 959 (citations omitted).[20]

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[19] We submit that Public Resources Code Section 21083.1 was intended to prevent courts from, for example, holding that an agency must analyze economic impacts of a project where there are no resulting environmental impacts (see CEQA Guidelines § 15131) , or imposing new procedural requirements, such as imposing additional public notice requirements not set forth in CEQA or the Guidelines.

[20] Lead agencies must consult air districts, as public agencies with jurisdiction by law over resources affected by the project, *before* releasing an EIR. (Pub. Resources Code §§ 21104(a); 21153.) Moreover, air

Lead agencies should be aware, therefore, that failure to properly seek and consider input from the relevant air district constitutes legal error which may jeopardize their project approvals. For example, the court in *Fall River Wild Trout Foundation v. County of Shasta,* (1999) 70 Cal.App.4th 482, 492 held that the failure to give notice to a trustee agency (Department of Fish and Game) was prejudicial error requiring reversal. The court explained that the lack of notice prevented the Department from providing any response to the CEQA document. (*Id.* at p. 492.) It therefore prevented relevant information from being presented to the lead agency, which was prejudicial error because it precluded informed decision-making. (*Id.*)[21]

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districts should be considered "state agencies" for purposes of the requirement to consult with "trustee agencies" as set forth in Public Resources Code § 20180.3(a). This Court has long ago held that the districts are not mere "local agencies" whose regulations are superseded by those of a state agency regarding matters of statewide concern, but rather have concurrent jurisdiction over such issues. (*Orange County Air Pollution Control District v. Public Util. Com.* (1971) 4 Cal.3d 945, 951, 954.) Since air pollution is a matter of statewide concern, *Id* at 952, air districts should be entitled to trustee agency status in order to ensure that this vital concern is adequately protected during the CEQA process.

[21] In *Schenck,* the court concluded that failure to give notice to the air district was not prejudicial, but this was partly because the trial court had already corrected the error before the case arrived at the Court of Appeal. The trial court issued a writ of mandate requiring the lead agency to give notice to the air district. The air district responded by concurring with the lead agency that air impacts were not significant. (*Schenck,* 198 Cal.App.4th 949, 960.) We disagree with the *Schenck* court that the failure to give notice to the air district would not have been prejudicial (even in the absence of the trial court writ) merely because the lead agency purported to follow the air district's published CEQA guidelines for significance. (*Id.*, 198 Cal.App.4th at p. 960.) In the first place, absent notice to the air district, it is uncertain whether the lead agency properly followed those guidelines. Moreover, it is not realistic to expect that an air district's published guidelines would necessarily fully address all possible air-quality related issues that can arise with a CEQA project, or that those

Similarly, lead agencies must obtain additional information requested by expert agencies, including those with jurisdiction by law, if that information is necessary to determine a project's impacts. (*Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236-37.) Approving a project without obtaining that information constitutes a failure to proceed in the manner prescribed by CEQA. (*Id.* at p. 1236.)

Moreover, a lead agency can save significant time and money by consulting with the air district early in the process. For example, the lead agency can learn what the air district recommends as an appropriate analysis on the facts of its case, including what kinds of health impacts analysis may be available, and what models are appropriate for use. This saves the lead agency from the need to do its analysis all over again and possibly needing to recirculate the document after errors are corrected, if new significant impacts are identified. (CEQA Guidelines § 15088.5(a).) At the same time, the air district's expert input can help the lead agency properly determine whether another commenter's request for additional analysis or studies is reasonable or feasible. Finally, the air district can provide input on what mitigation measures would be feasible and effective.

Therefore, we suggest that this Court provide guidance to lead agencies reminding them of the importance of consulting with the relevant air districts regarding these issues. Otherwise, their feasibility decisions may be vulnerable to air district evidence that establishes that there is no substantial evidence to support the lead agency decision not to provide specific analysis. (*See Berkeley Keep Jets Over the Bay, supra,* 91 Cal.App.4th 1344, 1369-1371.)

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guidelines would necessarily be continually modified to reflect new developments. Therefore we believe that, had the trial court not already ordered the lead agency to obtain the air district's views, the failure to give notice would have been prejudicial, as in *Fall River, supra,* 70 Cal.App.4th 482, 492.

CONCLUSION

The SCAQMD respectfully requests this Court *not* to establish a hard-and-fast rule concerning whether CEQA requires a lead agency to correlate identified air quality impacts of a project with resulting health outcomes. Moreover, the question of whether an EIR is "sufficient as an informational document" is a mixed question of fact and law containing two levels of inquiry. Whether a particular proposed analysis is feasible is predominantly a question of fact to be judged by the substantial evidence standard of review. Where the requested analysis is feasible, but the lead agency relies on legal or policy reasons not to provide it, the question of whether the EIR is nevertheless sufficient as an informational document is predominantly a question of law to be judged by the independent judgment standard of review.

Respectfully submitted,

DATED: April 3, 2015

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT
KURT R. WIESE, GENERAL COUNSEL
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SOUTH COAST AIR QUALITY MANAGEMENT DISTICT

CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.520(c)(1) of the California Rules of Court, I hereby certify that this brief contains 8,476 words, including footnotes, but excluding the Application, Table of Contents, Table of Authorities, Certificate of Service, this Certificate of Word Count, and signature blocks. I have relied on the word count of the Microsoft Word Vista program used to prepare this Certificate.

DATED: April 3, 2015 Respectfully submitted,

Barbara Baird

Barbara Baird

PROOF OF SERVICE

I am employed in the County of Los Angeles, California. I am over the age of 18 years and not a party to the within action. My business address is 21865 Copley Drive, Diamond Bar, California 91765.

On April 3, 2015 I served true copies of the following document(s) described as **APPLICATION OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT FOR LEAVE TO FILE BRIEF OF *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY AND *[PROPOSED]* BRIEF OF *AMICUS CURIAE*** by placing a true copy of the foregoing document(s) in a sealed envelope addressed as set forth on the attached service list as follows:

BY MAIL: I enclosed the document(s) in a sealed envelope or package addressed to the persons at the addresses listed in the Service List and placed the envelope for collection and mailing following our ordinary business practices. I am readily familiar with this District's practice for collection and processing of correspondence for mailing. Under that practice, the correspondence would be deposited with the United States Postal Service, with postage thereon fully prepaid at Diamond Bar, California, in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on April 3, 2015 at Diamond Bar, California.

Patricia Anderson

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APPENDIX 2a

BRA, BUOW & JD (2017)

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(909) 915-5900

August 11, 2017

Tom Dodson and Associates
Attn: Tom Dodson
2150 N. Arrowhead Avenue
San Bernardino, CA 92405

RE: GENERAL BIOLOGICAL RESOURCES ASSESSMENT REPORT
FOCUSED BURROWING OWL SURVEY & JURISDICTIONAL DELINEATION
INLAND VALLEY DEVELOPMENT AGENCY SPECIFIC PLAN AMENDMENT

Dear Mr. Dodson:

On behalf of Tom Dodson & Associates (TDA) and the Inland Valley Development Agency (IVDA), Jericho Systems Inc. (Jericho) conducted a general biological resources assessment (BRA) and protocol-level breeding season burrowing owl (*Athene cunicularia*) survey for a Specific Plan Amendment (SPA) Project (Project) within the City of Highland and City of San Bernardino, that intends to rezone the areas within its borders, creating a more cohesive and organized area of business and residential use.

The purpose of the BRA was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) and/or the California Native Plant Society (CNPS). Jericho assessed the open lands within the SPA for sensitive species with attention focused on those State- and/or federally-listed as threatened or endangered species and California species of special concern that have been documented in the project vicinity and/or whose habitat requirements are present within the vicinity of the project site.

In addition to the BRA and focused surveys, Jericho's Regulatory Specialists conducted a Jurisdictional Delineation (JD) of the SPA area. The purpose of the JD was to determine the extent of State and federal jurisdictional waters within the project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1602 of the California Fish and Game Code (FCG).

PROJECT SETTING

The SPA specifically concerns the section of the City of San Bernardino located west of the 210 freeway, east of Tippecanoe Ave., north of 3rd Street, and south of 6th Street, in the eastern portion of City San Bernardino and the western portion of the City of Highland. The site is identified on the *Redlands* U.S. Geological Survey's (USGS) 7.5-minute topographic map in the southern portions of Sections 4, 5, and 6 of Township 1 South, Range West (Figure 1).

To better explain the changes proposed to the project area, we have broken up the plan into four subareas as follows: City of Highland West, City of San Bernardino, City of Highland Center, and City of Highland East (See Figure 2).

City of Highland West

This section of the SPA is bordered on the west by Tippecanoe Ave, on the north by 6th Street, the south by 3rd Street, and on the east by the city boundary between Highland and San Bernardino. Currently, this area is a mix of Vacant Land, Single Family Detached, Apartment/Condo, and Commercial uses, with Single Family Detached and Vacant Land being the primary uses, at roughly 60 percent and 20 percent of the total land use respectively. Under the SPA, this area would be converted to Planned Commercial and Business Park uses, with about 15 percent of the area being Planned Commercial on the western-most edge of the section and the rest being Business Park.

This section of the project contains mainly single family residential houses, with vegetative growth being ornamentals associated with the residences. An open, concrete-lined channel bisects the section below 5th Street. There are some scattered vacant lots, with the largest being on the east and west sides of the northern part of Del Rosa Drive and adjacent to the western section of the open channel. These fields are undeveloped lots that had at one point been disked and have since grown back with nonnative grasses and weeds. There are no native vegetative communities established on any of the vacant areas or residential lots in this section of the SPA.

City of San Bernardino

A portion of the center of the Specific Plan is City of San Bernardino land. This is currently mostly Vacant Land (80 percent of the area), with small amounts of Industrial, Single Family Detached, and Commercial uses existing near the intersection of 5th Street and Lankershim Avenue. This would shift under the Specific Plan to Commercial General on the southwest quarter of the area and Industrial light on the northwest and center sections of the area. The eastern portion of the City of San Bernardino area would be Residential Medium (considered 14 du/ac) with a small scattering of Commercial General.

This section of the SPA almost completely consists of undeveloped lots. There is a small developed section lining Lankershim Avenue that has no associated vegetation or potential habitat for biological resources. The undeveloped lots to the east, west, and south of these developed areas are regularly weed-treated via the mechanical process of disking. Invasives such as mustard (*Brassica sp.)* and brome (*Bromus sp.)* have overtaken these areas, rendering them unsuitable for many of the sensitive native species. Ground squirrel (*Spermophilus beecheyi*) colonies are present in these lots.

City of Highland Center

The part of the SPA that will be referred to as City of Highland Center consists of both a section of land north of 5th Street, south of 6th Street on either side of Lankershim Avenue that is bordered on both the east and west by City of San Bernardino land, and the part of the Specific Plan east of Victoria Avenue and west of Central Avenue (again, south of 6th Street and north of 3rd Street). The area surrounded by the City of San Bernardino land is currently mostly Single Family Detached and Industrial, with some Commercial and Vacant Land. The section between Victoria Ave and Central Ave contains an Apartment/Condo complex in the northeast portion, with the rest of the land area split between Single Family Detached (mostly to the north) and Vacant Land (mostly to the south). Under the Specific Plan, all of the area surrounding Lankershim Avenue and the southern half of the Victoria Avenue through Central Avenue land would be Business Park. The Residential areas currently existing would remain mostly

unchanged, with all of the Vacant land north of 5th Street also being converted to Low-Density Residential (considered 2.1-6.0 du/ac).

This section of the project is mostly developed around Lankershim Avenue and in the part of the Victoria Avenue to Central Avenue north of 5th Street. The area below 5th Street is mainly open lots, with an open channel cutting diagonally from the corner of 3rd Street and Victoria Avenue to near the intersection of Central Avenue and 5th Street. As with the City of San Bernardino section, the majority of the vacant land in this section is mechanically treated to keep vegetation from growing too abundantly. Non-native and invasives make up the majority of the plant species within this section.

City of Highland East

This section of the SPA is bordered on the west by Central Avenue, the north by an existing open channel that drains into City Creek to the east, the south by 3rd Street and the east by Interstate 210. This area is currently mostly Industrial (about 45 percent), with Open Space and Floodways taking up an additional 20 percent with the aforementioned open channel to the north and City Creek on the east. The remaining land is an almost even mix of Vacant Land, Single Family Detached, and Commercial uses.

Under the SPA, the open Channel and City Creek will remain Open Space with no proposed development associated with the Specific Plan, and the Industrial sections will be solidified as zoned in all other areas north of 5th Street, as well as east of Alabama Street. The sections south of 5th Street will be Business Park.

The western and southern portions of this section of the project have been developed as an industrial area. The northern boundary of the section is an open channel that will remain untouched by the implementation of the SPA, as well as City Creek on the eastern border of the section. Native habitat communities, including the Riversidean Alluvial Fan Sage Scrub (RAFSS) and Southern Riparian Scrub, are present within and along the banks of City Creek. The presence of these habitats means that several sensitive and protected species have the potential to occur within those areas, including least Bell's Vireo (*Vireo bellii pusillus*), Santa Ana River woolly star (*Eriastrum densifolium* ssp. *sanctorum*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus*). As stated, these areas have no proposed development associated with them in the SPA, and as such, no impacts to these areas will occur due to the implementation of the SPA. The developed areas in this section of the project do not, despite their proximity to City Creek, have any native vegetation communities present.

ENVIRONMENTAL SETTING

The SPA lies in the Southern California Northern Baja Ecoregion (85) specifically in the Inland Valleys (85k). The Inland Valleys ecoregion is heavily urbanized, the alluvial fans and basin floors south of the San Bernardino and San Gabriel Mountains are included in this region along with some of the flood plains spanning along the Santa Ana River. The 85k ecoregion also includes the San Jacinto and Perris Valleys in the south. The temperature of the soil in this area is thermic, meaning that the average soil temperature usually sits between 15° C and 22° C. The soil moister regime is xeric and is typical for Mediterranean climates with cool wet winters and warm dry summers. Vegetation in this ecoregion consists of Riversidean coastal sage scrub, valley grasslands and riparian woodlands. The ecoregion 85 is also characterized by chaparral hillsides that contain vegetation such as ceanothus, manzanita, scrub oak and mountain mahogany; along with Coast lie oak, canyon live oak, poison oak, and California black walnut trees.

The SPA is within the Bunker Hill Hydrologic Sub-Area (HSA 807.52) which comprises a 124,791-acre drainage area within the larger Santa Ana River Watershed (HUC 1807020). This watershed originates

within San Bernardino County and continues to the ocean through Riverside and Orange counties. The Santa Ana River Watershed is bound on the north by the Mojave Watersheds, on the east by the Whitewater River Watershed, on the south by the Newport Bay, Aliso-San Onofre, and the San Jacinto Watersheds and on the west by the San Gabriel Watershed. The Santa Ana Watershed encompasses a portion of the San Gabriel and San Bernardino Mountains in the south and is approximately 3,000 square miles in area. The Santa Ana River is the major hydrogeomorphic feature within the Santa Ana Watershed.

Soils in the SPA consist of four types 1) Hanford coarse sandy loam, a granite-based, non-hydric soil; 2) Psamments, Fluvents which are frequently flooded, sandy alluvium soils associated with flooding; 3) Soboba gravelly and stony loamy sand, a granite-based, non-hydric soil; and 4) Tujunga loamy sand and gravelly loamy sand, also a granite-based, non-hydric soil.

BIOLOGICAL SETTING

In addition to field surveys, relevant databases (USFWS threatened and endangered species occurrence data overlay, Environmental Conservation Online System (ECOS), California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI)) were searched for sensitive species data on the *Redlands, San Bernardino South* and *Harrison Mountain* USGS 7.5-minute series quadrangles. According to these data bases 92 sensitive species (35 Plants, 51 animals, and 6 habitats) have been documented to occur locally (See Appendix A for full list).

This assessment focuses attention on the specific sensitive species that have been documented in the project vicinity and/or whose habitat requirements are present within the SPA. Of the 92 species and habitats identified, only burrowing owl (*Athene cuniculara*) [BUOW] has a moderate potential to occur in an area affected by the SPA. Although not a State or federally listed as threatened or endangered species, burrowing owl are considered a State and federal Species of Special Concern and are a migratory bird protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California Fish and Game Code (CDFG Code #3513 & #3503.5). Burrowing owl are known to occur throughout the region and have been documented within the project vicinity.

The BUOW is a small, ground-dwelling owl that is protected under the Migratory Bird Treaty Act (MBTA) and by CDFW as a Species of Special Concern. In southern California, BUOW can be found in grassland, shrub steppe, and desert habitat types consisting of short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils. They can also be found in agricultural areas, ruderal grassy fields, vacant lots and pastures, and flood control facilities. Most importantly, BUOWs require underground burrows or other cavities for nesting, roosting and shelter. Burrows used by the owls are usually dug by other species, termed host burrowers.

In California, California ground squirrel (*Spermophilus beecheyi*) burrows are frequently used by BUOW but they may use dens or holes dug by other fossorial species or man-made structures such as pipes and culverts. They are active during the day, generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31.

METHODS

All surveys conducted for this project in regard to biological resources were conducted on vacant lands within the project area (See Table 1). Previously developed land in active use was not surveyed. Figure 2 depicts the surveyed area of the project.

Table 1: Summary of Surveyed Areas

SPA Sub-Area	# of Vacant Acres	Location
City of Highland West	27	Vacant lot between 5th Street and 6th Street on the west side of Sterling Avenue was surveyed, along with the channelized drainage that runs through the middle of the SPA that is between 5th Street and 3rd Street
City of San Bernardino	136	Large vacant lots to the north and south of 5th Street, bounded by Victoria Ave to the east and a small section of developed housing just east of N Del Rosa Drive to the west, were surveyed
City of Highland Center	25	Large vacant lot on the southeast corner of the intersection of 5th Street and Victoria Avenue as well as the drainage channel running through this section of the SPA were surveyed.
City of Highland East	36	Eastern and northern-most edges of the project. City Creek and the East Storm Drain flowing into it were surveyed.

Jericho biologists Daniel Smith, Shannon Dye and Eugene Jennings conducted a general biological resources assessment of the project area on April 12th and 13th, 2017. Mr. Smith is a field biologist with over a decade of experience conducting field surveys. He was assisted by Ms. Dye and Mr. Jennings, biologists with experience conducting many such field surveys in San Bernardino, Redlands, and throughout the Inland Empire.

General wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The main focus of the assessment was to identify potential habitat for special status wildlife within the project area.

Jericho biologist scheduled their focused surveys to coincide with the breeding season for BUOW. Jericho biologists Daniel Smith, Eugene Jennings, and Shannon Dye, assisted by field intern Bailey Bingham conducted the surveys on April 13, May 9, June 21, and July 15, 2017 in accordance with the March 7, 2012 "California Department of Fish and Game staff report on Burrowing Owl Mitigation". The surveyors conducted comprehensive surveys with complete coverage of the site and adjacent areas (when appropriate and feasible). They assessed the survey site for soil type and level of friability as well as habitat type and habitat structure. As per BUOW survey protocol, the surveyors systematically searched all open, undeveloped areas of the Specific Plan with sparse, low-growing vegetation or open channels with sloped banks by walking transects spaced at approximately 100 feet (30 meters), which provided 100 percent visual coverage of the ground surface. During each of the required four site visits, they inspected all natural and non-natural substrates and searched for signs of BUOW including, burrows, molted feathers, cast pellets, prey remains, and owl white-wash. Surveys were conducted during the morning hours of 6 am through 10 am.

In addition to the biological resources assessment and focused surveys, potential jurisdictional waters were also assessed within the project area. Historical aerial photographs were examined to gain an understanding of the impact of land-use on natural drainage patterns in the area. Where possible, surface drainage systems were traced using aerial imagery to downstream receiving waters. The USFWS National Wetland Inventory and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey was used to identify the soil

series in the area and to check these soils to determine whether they are regionally identified as hydric soils.

Field verification of measurements established via aerials was conducted on foot on July 26th. Suspected jurisdictional areas were checked for the presence of definable channels and/or wetland vegetation, riparian habitat, soils, and hydrology. The lateral extent of USACE jurisdiction was measured at the Ordinary High Watermark (OHWM), as indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris. Evaluation of CDFW jurisdiction followed the guidance in the FGC by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation.

Upon completion of fieldwork, all data collected in the field were incorporated into a Geographic Information System (GIS) along with base map data. The GIS was then used to quantify the extent of jurisdictional waters. Upstream and downstream connectivity of waterways was reviewed in the field and on aerial photographs and topographic maps to determine jurisdictional status per the CWA.

RESULTS

All of the vacant lands within the SPA subareas have been experienced periodic weed abatement activities. The vacant lands are characterized by long grasses and non-native weedy species, such as slender oat (*Avena barbata*), hoary mustard (*Hirschfeldia incana*), red brome (*Bromus madritensis ssp. rubens*), and ripgut (*Bromus diandrus*). Much of the SPA area and surrounding land uses have heavily disturbed, if not completely eliminated, most of the naturally occurring habitats in SPA project site, reducing the suitability of the habitat to support very sensitive species.

Habitat

Table 2: Habitats in Sub-Areas

SPA Sub-Area	Location Type/Acreage	Habitat	Wildlife Observed
City of Highland West	Vacant Lot and West Storm Drain/ 27 acres	Mediterranean grass grassland	California ground squirrel (*Spermophilus beecheyi*), domestic cat (*Felis catus*), red-tailed hawk (*Buteo jamaicensis*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*)
City of San Bernardino	Vacant Lot and West Storm Drain/ 136 acres	Mediterranean grass grassland	California ground squirrel, coyote (*Canis latrans*), domestic dog (*Canis lupus familiaris*), red-tailed hawk, side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*)
City of Highland Center	Vacant Lot/ 25 acres	Mediterranean grass grassland	American crow (*Corvus branchyrhynchos*), red-tailed hawk, domestic dog, side-blotched lizard
City of Highland East	City Creek and East Storm Drain/ 36 acres	Mediterranean grass grassland	California ground squirrel, killdeer (*Charadrius vociferus*), western kingbird (*Tyrannus vericalis*), Say's phoebe (*Sayornis saya*), house finch, side-blotched lizard

Special Status Species

No State and/or federally listed threatened or endangered species, or other sensitive species were observed on any of the sites during the field surveys. The conditions present onsite were marginally-suitable for BUOW. According to the CNDDB, there are 4 documented occurrences of BUOW within the *Redlands, San Bernardino South,* and *Harrison Mountain* quads. Of these occurrences, a 2006

observation noted BUOW within the drainage along 3rd Street, at the southern edge of the City of San Bernardino sub-area of the SPA.

The soils on site are friable and conducive to burrowing. The focused surveys were structured to detect BUOW in their peak times of activity. No evidence of BUOW was found in any of the vacant lands in any of the subareas during the survey area. All ground squirrel burrows located within the SPA property were evaluated and did not present any evidence of historic or current use by BUOW. Predators such as domestic cat, great-horned owl, domestic dog, coyote, and a red-tailed hawk were observed on site, which would deter BUOW from using the site. No BUOW individuals or BUOW sign was observed within or adjacent to SPA survey area. No sign of BUOW was found within the channel noted to have a BUOW occurrences previously.

Nesting Birds

The open areas of the SPA and immediate surrounding areas do contain habitat suitable for nesting birds. Nesting bird surveys should be conducted prior to any vegetation clearing or new construction activities taking place during the nesting season to avoid potentially taking any birds or active nests. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season (generally February 1st to August 31st), and conducting a worker awareness training. However, if all work cannot be conducted outside of nesting season, a project-specific Nesting Bird Management Plan can be prepared to determine suitable buffers.

Critical Habitat

Federally-designated Critical Habitat does exist within the SPA. City Creek contains both San Bernardino kangaroo rat (*Dipodomys merriami parvus*) [SBKR] Critical Habitat and Santa Ana sucker (*Catostomus santaanae*) [SASU] Critical Habitat. The extent of the Critical Habitat is limited in both species to within the corridor of City Creek, with no part in an actionable part of the SPA.

Jurisdictional Waters

There are potentially jurisdictional waters within the SPA. The potentially jurisdictional features that remain above-ground, with the exception of City Creek on the eastern edge, have been channelized in open channels with either rock or concrete edging or earthen channels. The jurisdictional features are tributary to the Santa Ana River, which is located south of the project site.

The Santa Ana River is jurisdictional water subject to the Clean Water Act (CWA) and Fish and Game Code under the jurisdictions of U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW respectively. Any project related impacts to the ephemeral stream that exists onsite will likely require a Streambed Alteration Agreement from the CDFW, and CWA Sections 401/404 permits from the RWQCB and Corps respectively.

There are sections within the SPA that are subject to the jurisdictions of the California FGC Section 1600 and Clean Water Act Sections 404 and 401. The eastern section contains a portion of City Creek, as well as, earthen and concrete lined channels used as storm drain facilities. The western portion of the specific plan contains an earthen channel. All jurisdictional features occur within existing flood control facilities. See Figures 4, 4.1, 5, 5.1, 6, & 6.1 for jurisdictional features within the plan area.

See table 3 below for acreages of jurisdictional features.

Table 3: Summary of Acreages of Jurisdictional Waters within the Subject Parcel

Feature	Average OHWM (feet)	Average Bank-full Width (feet)	Length (feet)	WoUS USACE jurisdiction (acres)	FGC 1600 CDFW jurisdiction (acres)
East Storm Drain	37	86	8,748	5.46	13.18
West Storm Drain	25	54	5,659	2.03	4.73
City Creek	267	352	2,362	13.83	19.43

CONCLUSIONS AND RECOMMENDATIONS

No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on any of the vacant lands within any of the SPA subareas during the field survey. No evidence of BUOW was found in the survey areas. The burrows located within the property sites showed no sign of historical or current use of BUOW. No BUOW pellets, feathers or white wash were present and no burrowing owl individuals were observed. As such, BUOW is currently absent from the vacant lands within the SPA.

Nesting birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711). The MBTA provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA prohibits take of nearly all native birds. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW, administers the MBTA. CDFW's authoritative nexus to MBTA is provided in FGC Sections 3503.5 which protects all birds of prey and their nests and FGC Section 3800 which protects all nongame birds that occur naturally in the State.

In addition to potential impacts to designated critical habitats and special status species, potential impacts to jurisdictional waters must be considered. Impacts to jurisdictional waters typically require regulatory approvals from one or more of the following regulatory agencies: USACE, RWQCB, and/or CDFW.

Clean Water Act Compliance

The proposed project is to re-designate existing land uses within the specific plan area to allow for future development of vacant parcels. The re-designation map shows that some of the existing flood control channels designated as either Public/Institutional, Commercial General, Business Park, or Planned Commercial. Any alterations to existing flood control channels within the specific plan area would be subject to the CWA and would require a Clean Water Act 401 permit from the Regional Water Quality Control Board and a Clean Water Act Section 404 permit from the Army Corps of Engineers. The proposed project is to re-designate existing land uses within the specific plan area to allow for future development of vacant parcels. The re-designation map shows that some of the existing flood control channels being either Public/Institutional, Commercial General, Business Park, or Planned Commercial.

California Fish and Game Code Streambed Alteration Compliance

The proposed project is to re-designate existing land uses within the specific plan area to allow for future development of vacant parcels. The re-designation map shows that existing flood control channels being

either Public/Institutional, Commercial General, Business Park, or Planned Commercial. Any alterations to existing flood control channels within the specific plan area would be subject to the FGC and would require a 1602 permit from the California Department of Fish and Wildlife.

CERTIFICATION

I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this Biological Survey to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and recommended protocols.

Feel free to contact me if you have any questions at (909) 915-5900 or shay@jericho-systems.com

Sincerely,



Shay Lawrey,

Appendices
- Appendix A Potential to Occur Table
- Appendix B Figures
- Appendix C Site photos

APPENDIX A
Potential to Occur Table

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
Accipiter cooperii	Cooper's hawk	None/None	G5, S4	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Agelaius tricolor	tricolored blackbird	None/ Candidate Endangered	G2G3, S1S2, SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None/None	G5T3, S3	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Anniella pulchra pulchra	silvery legless lizard	None/None	G3G4T3T4Q, S3, SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Open fields with loose loamy and sandy soils do exist on the project site. However, the sites are regularly weed-abated via disking, rendering these areas less suitable. The eastern edge of the project area, inside the City Creek drainage, may contain suitable habitat for this species, however the potential for this species to occur in the actionable area of the project is **low**.
Antrozous pallidus	pallid bat	None/None	G5, S3, SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Arenaria paludicola	marsh sandwort	Endangered/ Endangered	G1, S1, CNPS 1B.1	Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Arizona elegans occidentalis	California glossy snake	None/None	G5T2, S2, SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin	Suitable habitat for this species does not exist onsite.

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
				Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	The potential for this species to occur is **low**.
Artemisiospiza belli belli	Bell's sage sparrow	None/None	G5T2T4, S3	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Aspidoscelis hyperythra	orange-throated whiptail	None/None	G5, S2S3	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Aspidoscelis tigris stejnegeri	coastal whiptail	None/None	G5T5, S3, SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Open fields with sparse vegetation do occur in the project area. However, the fields are regularly weed-abated via disking, rendering these areas less suitable. The eastern edge of the project area, inside the City Creek drainage, may contain suitable habitat for this species, however the potential for this species to occur in the actionable area of the project is **low.**
Astragalus hornii var. hornii	Horn's milk-vetch	None/None	G4G5T1T2, S1, CNPS 1B.1	Meadows and seeps, playas. Lake margins, alkaline sites. 75-350 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Athene cunicularia	burrowing owl	None/None	G4, S3, SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester,	Suitable habitat for this species does exist onsite. Focused surveys for

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
				dependent upon burrowing mammals, most notably, the California ground squirrel.	burrowing owl were conducted within the potentially suitable sections of the project. **No burrowing owls were located** during the focused surveys.
Berberis nevinii	Nevin's barberry	Endangered/ Endangered	G1, S1, CNPS 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Bombus crotchii	Crotch bumble bee	None/None	G3G4, S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Buteo swainsoni	Swainson's hawk	None/ Threatened	G5, S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Calochortus plummerae	Plummer's mariposa-lily	None/None	G4, S4, CNPS 4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Carex comosa	bristly sedge	None/None	G5, S2, CNPS 2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -5-1620 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Carolella busckana	Busck's gallmoth	None/None	G1G3, SH		Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Catostomus santaanae	Santa Ana sucker	Threatened/ None	G1, S1	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water,	Suitable habitat for this species does not exist onsite. The potential for this species

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
				and algae.	to occur is **low**.
Centromadia pungens ssp. laevis	smooth tarplant	None/None	G3G4T2, S2, CNPS 1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/None	G5T3T4, S3S4, SSC	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat for this species does exist onsite. Disking activities in the area have reduced potential suitability for this species in the open fields in the project area. The potential for this species to occur is **moderate.**
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Endangered/ Endangered	G4?T1, S1, CNPS 1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Chorizanthe parryi var. parryi	Parry's spineflower	None/None	G3T2, S2, CNPS 1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened/ Endangered	G5T2T3, S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Coleonyx variegatus abbotti	San Diego banded gecko	None/None	G5T3T4, S1S2, SSC	Coastal & cismontane Southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Crotalus ruber	red-diamond rattlesnake	None/None	G4, S3, SSC	Chaparral, woodland, grassland, & desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	None/None	G5T4T5, SH, CNPS 2B.2	Marshes and swamps (freshwater). Freshwater marsh. 15-280 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered/ None	G5T1, S1, SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Suitable habitat for this species does exist onsite within the City Creek drainage area on the eastern edge of the site. There is a known population within City Creek, and the potential for this species to occur within that section of the project is **high.** However, no action is planned for the City Creek area and no suitable habitat exists within the actionable area of the project.
Dipodomys stephensi	Stephens' kangaroo rat	Endangered/ Threatened	G2, S2	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Dodecahema leptoceras	slender-horned spineflower	Endangered/ Endangered	G1, S1, CNPS 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered/ Endangered	G5T2, S1	Riparian woodlands in Southern California.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Eremophila alpestris actia	California horned lark	None/None	G5T4Q, S4	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	This species has been observed in the San Bernardino Airport, adjacent to the project area. The potential for this species to utilize parts of the project area

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
					is **high**.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Endangered/ Endangered	G4T1, S1, CNPS 1B.1	Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.	This species **does occur** within the City Creek area of the project. No suitable habitat exists in the project area outside of City Creek area, however. The potential for this species to occur in the actionable area of the project is **low.**
Eumops perotis californicus	western mastiff bat	None/None	G5T4, S3S4, SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Falco columbarius	merlin	None/None	G5, S3S4	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Galium californicum ssp. primum	Alvin Meadow bedstraw	None/None	G5T1, S1, CNPS 1B.2	Chaparral, lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. Granitic, sandy soils. 1350-1700 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Gila orcuttii	arroyo chub	None/None	G2, S2, SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave & San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	None/None	G5TH, SH, CNPS 1A	Marshes and swamps (coastal salt and freshwater). 10-1524 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Horkelia cuneata	mesa horkelia	None/None	G4T1, S1,	Chaparral, cismontane woodland, coastal	Suitable habitat for this

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
var. puberula			CNPS 1B.1	scrub. Sandy or gravelly sites. 15-1645 m.	species does not exist onsite. The potential for this species to occur is **low**.
Icteria virens	yellow-breasted chat	None/None	G5, S3, SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Imperata brevifolia	California satintail	None/None	G4, S3, CNPS 2B.1	Coastal scrub, chaparral, riparian scrub, mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Lanius ludovicianus	loggerhead shrike	None/None	G4, S4, SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	This species has been observed in the San Bernardino Airport, adjacent to the project area. The potential for this species to utilize parts of the project area is **high**.
Lasiurus xanthinus	western yellow bat	None/None	G5, S3, SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	None/None	G5T3, S3, CNPS 4.3	Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/None	G5T3T4, S3S4, SSC	Intermediate canopy stages of shrub habitats & open shrub / herbaceous & tree / herbaceous edges. Coastal sage scrub habitats in Southern California.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Lycium parishii	Parish's desert-thorn	None/None	G3?, S1, CNPS 2B.3	Coastal scrub, Sonoran desert scrub. 135-1000 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Malacothamnus parishii	Parish's bush-mallow	None/None	GXQ, SX, CNPS 1A	Chaparral, coastal sage scrub. In a wash. 305-455 m.	Suitable habitat for this species does not exist onsite. The potential for this species

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
					to occur is **low**.
Monardella pringlei	Pringle's monardella	None/None	GX, SX, CNPS 1A	Coastal scrub. Sandy hills. 300-400 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Nasturtium gambelii	Gambel's water cress	Endangered/ Threatened	G1, S1, CNPS 1B.1	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-330 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Neotoma lepida intermedia	San Diego desert woodrat	None/None	G5T3T4, S3S4, SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Suitable habitat for this species exists within the City Creek section of the project area. The potential for this species to occur within the drainage there is **high**. However, no suitable habitat for this species exists outside of that area, and therefore it is unlikely that this species will occur within the actionable area of the project.
Nyctinomops femorosaccus	pocketed free-tailed bat	None/None	G4, S3, SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Onychomys torridus ramona	southern grasshopper mouse	None/None	G5T3, S3, SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Open fields with friable soils do exist on the project site. However, the sites are regularly weed-abated via disking, rendering these areas less suitable. The eastern edge of the project area, inside the City Creek drainage, may contain suitable habitat for this species, however the potential for this species to occur in the actionable area of the project is **low**.

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/None	G5T1T2, S1S2, SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Open fields with loose loamy and sandy soils do exist on the project site. However, the sites are regularly weed-abated via disking, rendering these areas less suitable. The potential for this species to occur in the actionable area of the project is **moderate**.
Phrynosoma blainvillii	coast horned lizard	None/None	G3G4, S3S4, SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Polioptila californica californica	coastal California gnatcatcher	Threatened/ None	G4G5T2Q, S2, SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Suitable habitat for this species exists onsite in the City Creek portion of the project site. However, they are not known to occur in this area. The potential for this species to occur is **low**.
Rana muscosa	southern mountain yellow-legged frog	Endangered/ Endangered	G1, S1	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	Endangered/ None	G1T1, S1	Found only in areas of the Delhi Sands formation in southwestern San Bernardino & northwestern Riverside counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes & sparse vegetation. Oviposition req. shade.	Suitable habitat for this species does not exist onsite. No Delhi Sands are mapped near the project area. The potential for this species to occur is **low**.
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	None/None	G5T1, S1, SSC	Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the	Suitable habitat for this species does not exist onsite.

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
				Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	The potential for this species to occur is **low**.
Ribes divaricatum var. parishii	Parish's gooseberry	None/None	G4TX, SX, CNPS 1A	Riparian woodland. Salix swales in riparian habitats. 65-300 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Riversidian Alluvial Fan Sage Scrub		None/None	G1, S1.1	Habitat type **does occur** within the City Creek section of the project area. It does not occur outside of this section and is not likely to be impacted by the implementation of the project.	
Setophaga petechia	yellow warbler	None/None	G5, S3S4, SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Sidalcea neomexicana	Salt Spring checkerbloom	None/None	G4, S2, CNPS 2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 0-1530 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Southern Coast Live Oak Riparian Forest		None/None	G4, S4	Habitat type **does not occur** onsite.	
Southern Cottonwood Willow Riparian Forest		None/None	G3, S3.2	Habitat type **does not occur** onsite.	
Southern Riparian Scrub		None/None	G3, S3.2	Habitat type **does occur** within the City Creek section of the project area. It does not occur outside of this section and is not likely to be impacted by the implementation of the project.	
Southern Sycamore Alder Riparian Woodland		None/None	G4, S4	Habitat type **does not occur** onsite.	
Spea hammondii	western spadefoot	None/None	G3, S3, SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Sphenopholis obtusata	prairie wedge grass	None/None	G5, S2, CNPS 2B.2	Cismontane woodland, meadows and seeps. Open moist sites, along rivers and springs, alkaline desert seeps. 300-2000 m.	Suitable habitat for this species does not exist onsite. The potential for this species

Scientific Name	Common Name	Federal/State Rankings	Other Rankings	Habitat	Potential to Occur
					to occur is **low**.
Symphyotrichum defoliatum	San Bernardino aster	None/None	G2, S2, CNPS 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040 m.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Taxidea taxus	American badger	None/None	G5, S3, SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Thamnophis hammondii	two-striped gartersnake	None/None	G4, S3S4, SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Suitable habitat for this species does not exist onsite. The potential for this species to occur is **low**.
Vireo bellii pusillus	least Bell's vireo	Endangered/ Endangered	G5T2, S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Suitable habitat for this species exists onsite in the City Creek portion of the project site, and they have been found to occur in the upper reaches of City Creek, approximately 1.3 miles upstream of the project area. The potential for this species to occur is **moderate**. However, no suitable habitat exists in the project area outside of City Creek, and therefore the potential of this species to occur within the actionable portion of the project area is **low**.

APPENDIX B
Figures

Tom Dodson
BRA – Specific Plan Amendment
August 11, 2017

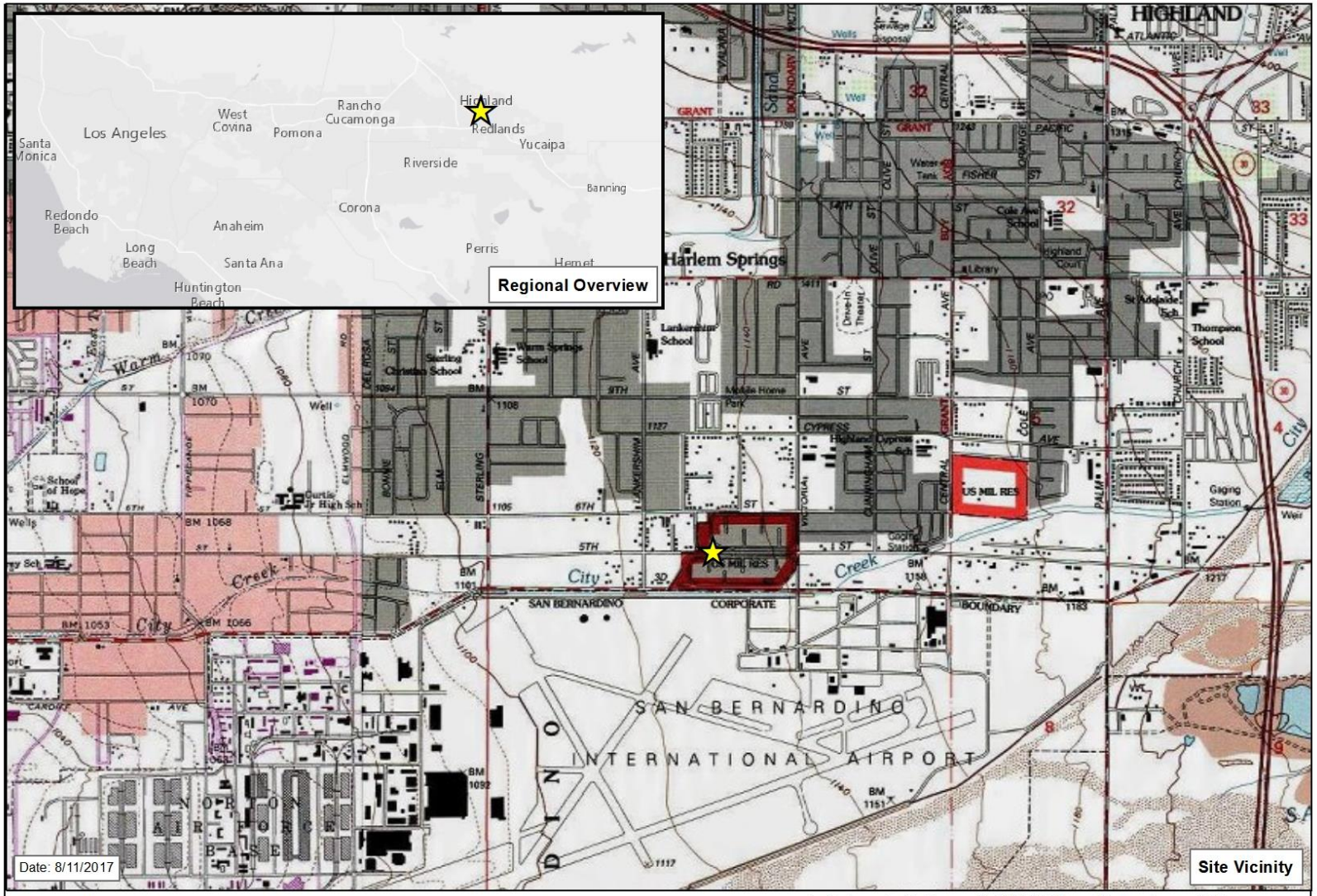
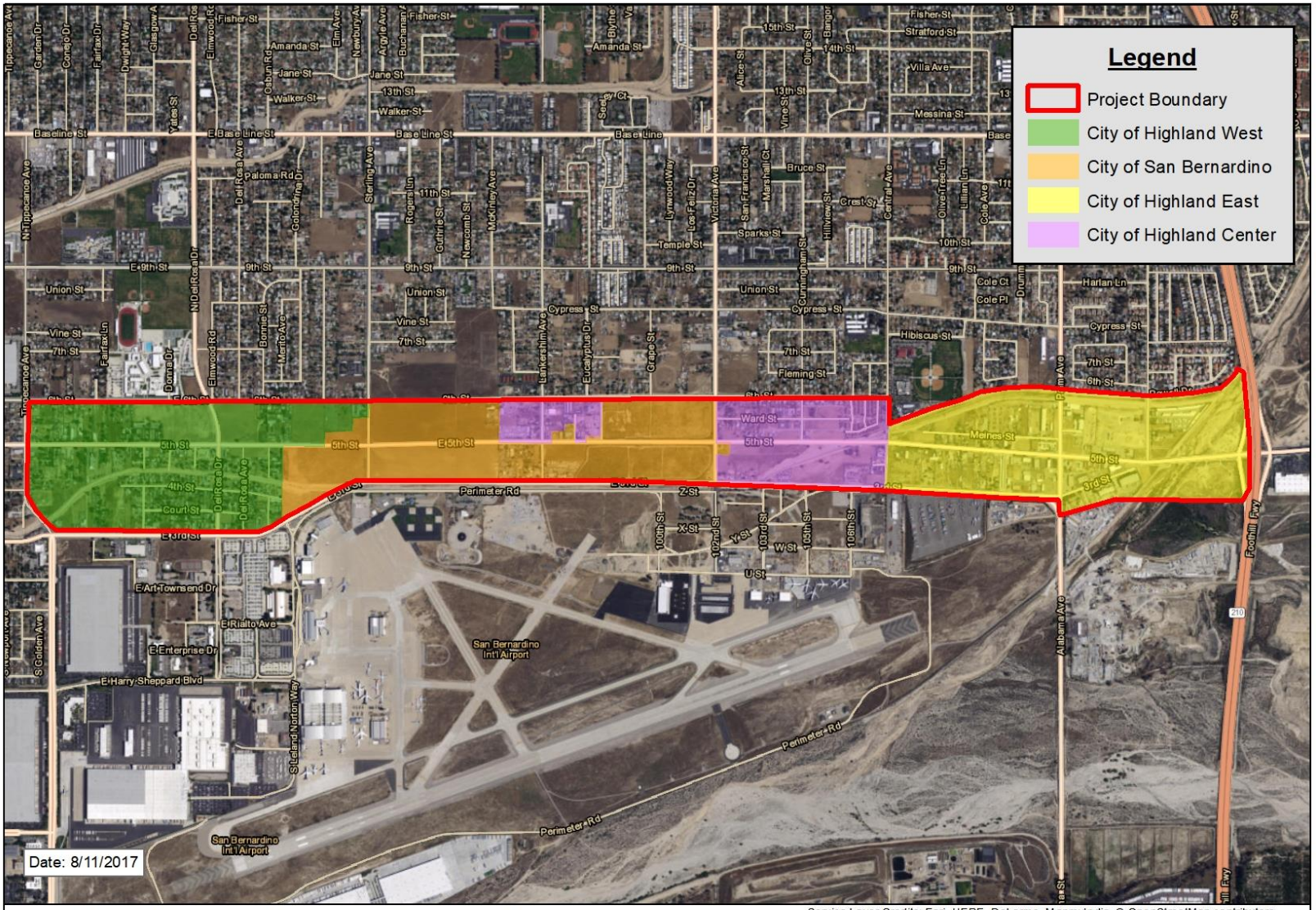
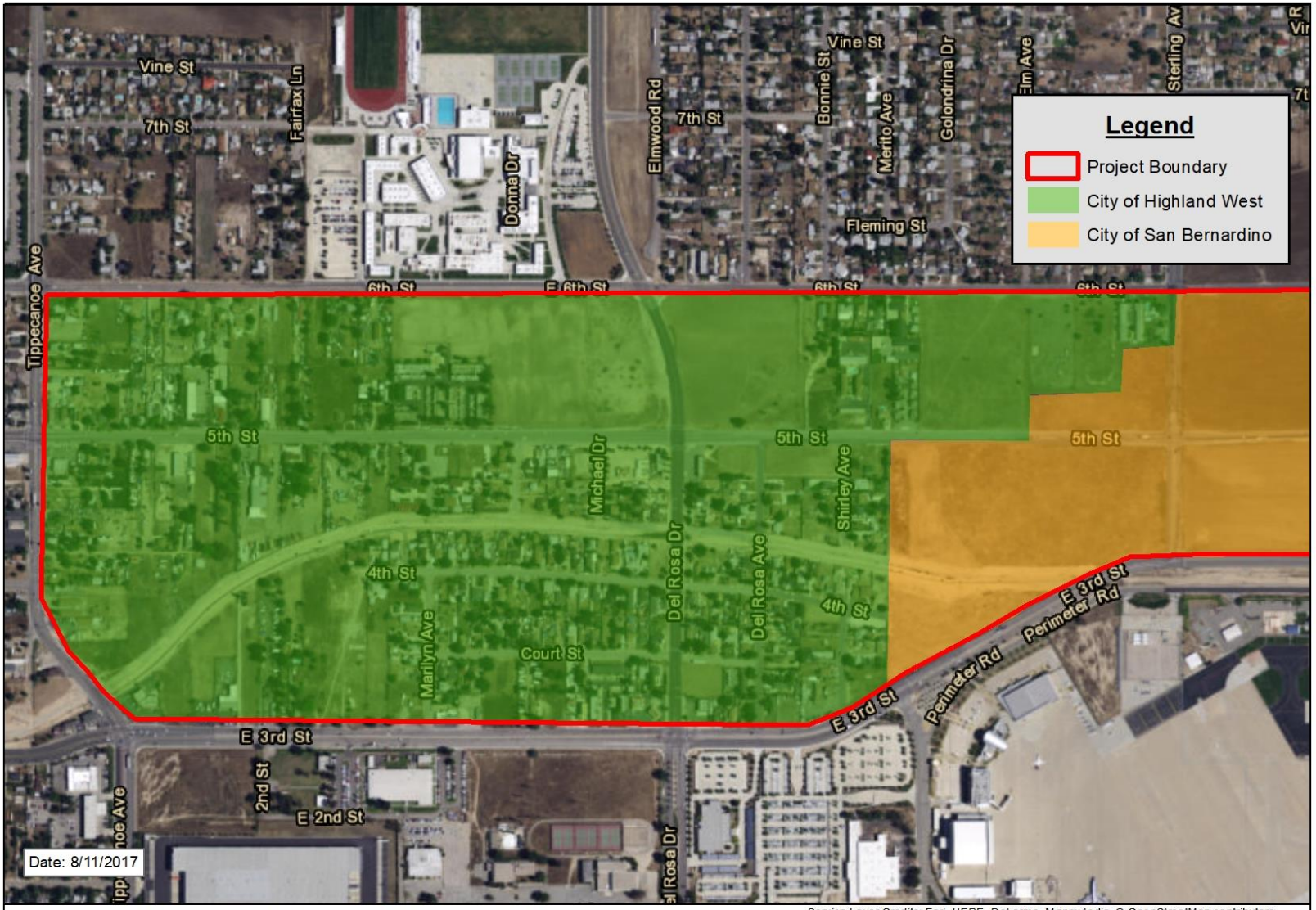
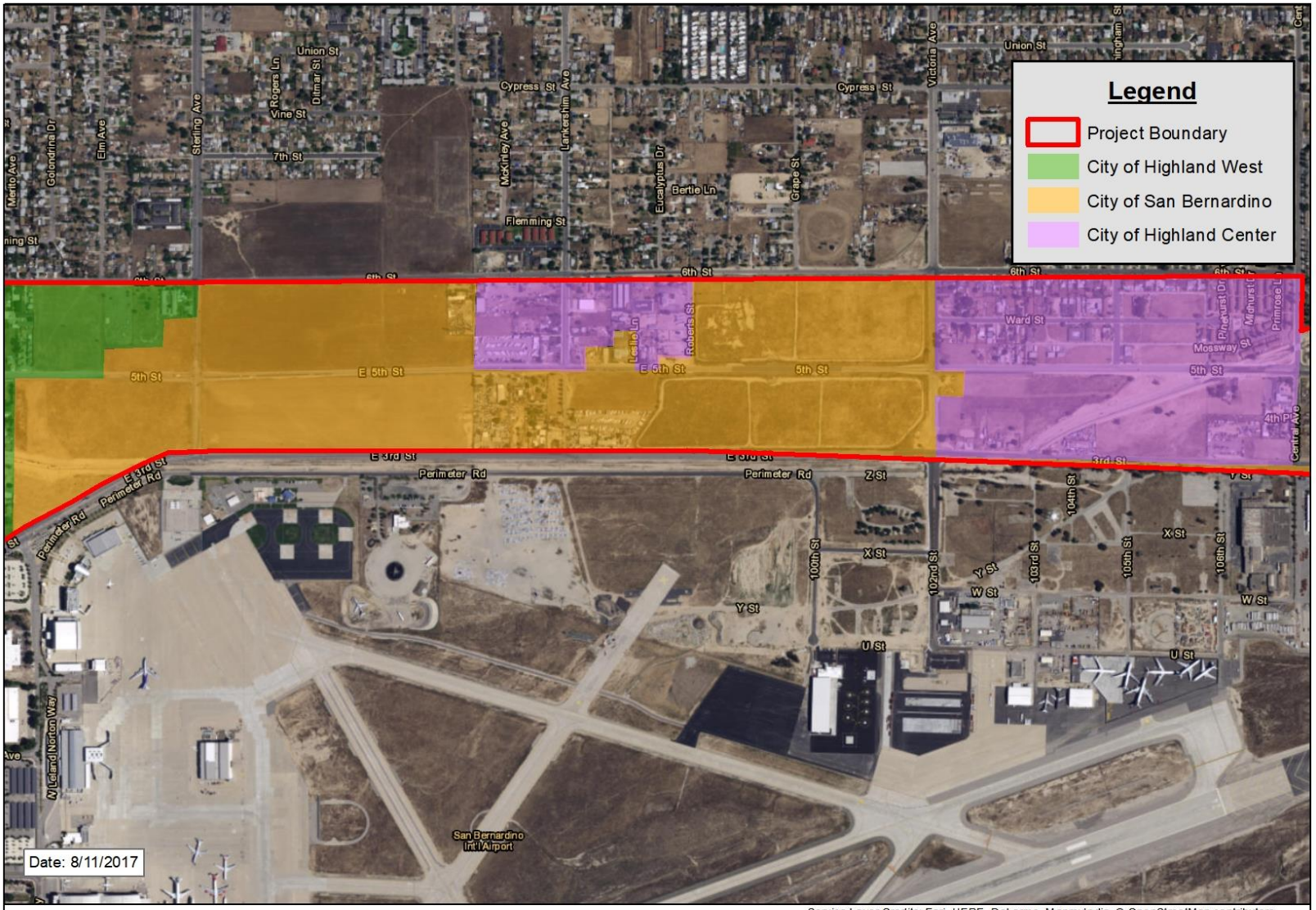


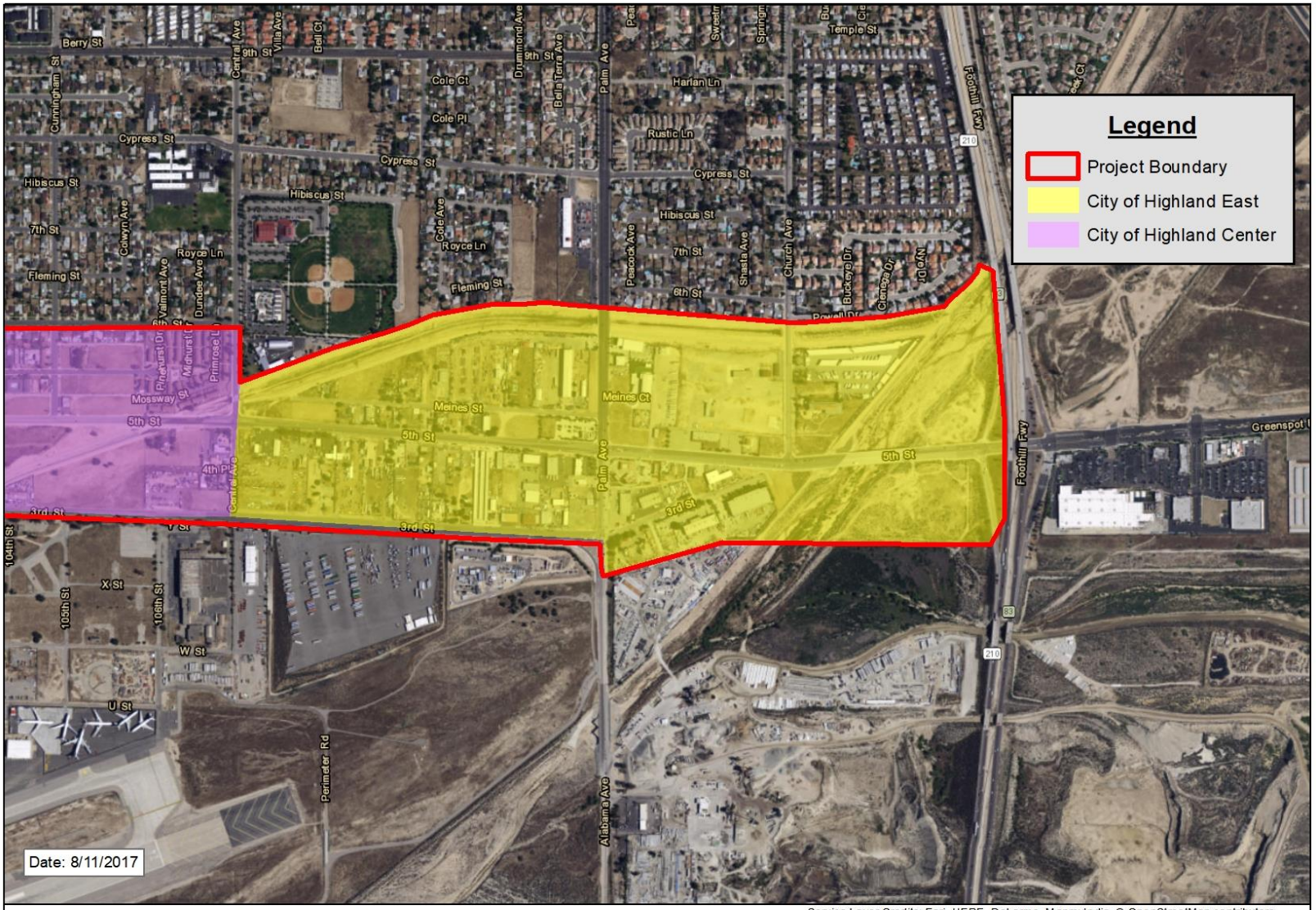
Figure 1 - Regional Location and Site Vicinity

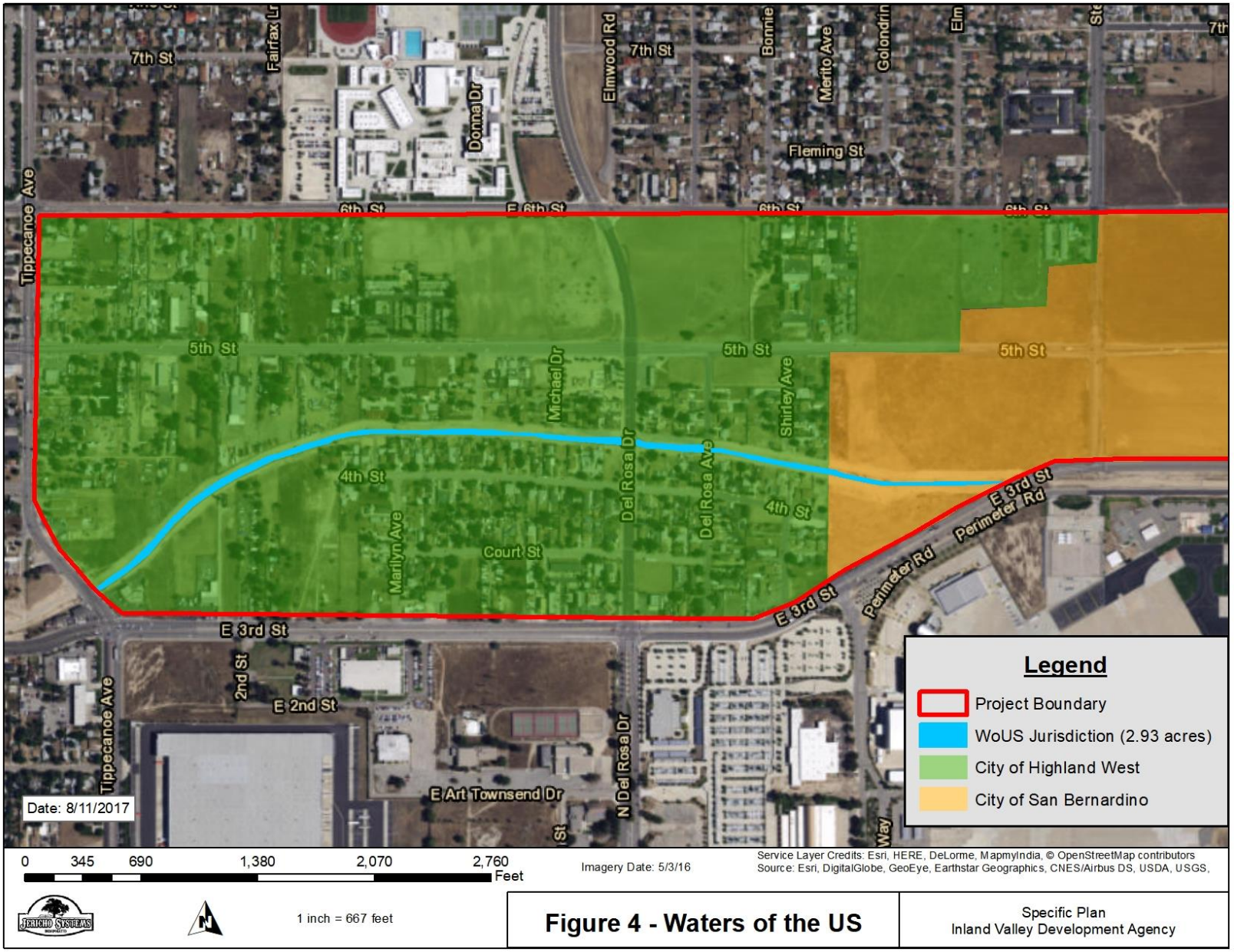
Specific Plan
Inland Valley Development Agency


Legend
Project Boundary
City of Highland West
City of San Bernardino
City of Highland East
City of Highland Center
Date: 8/11/2017
0 1,150 2,300 4,600 6,900 9,200 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 2,212 feet
Figure 2 - Site Location and Breakdown
Specific Plan
Inland Valley Development Agency

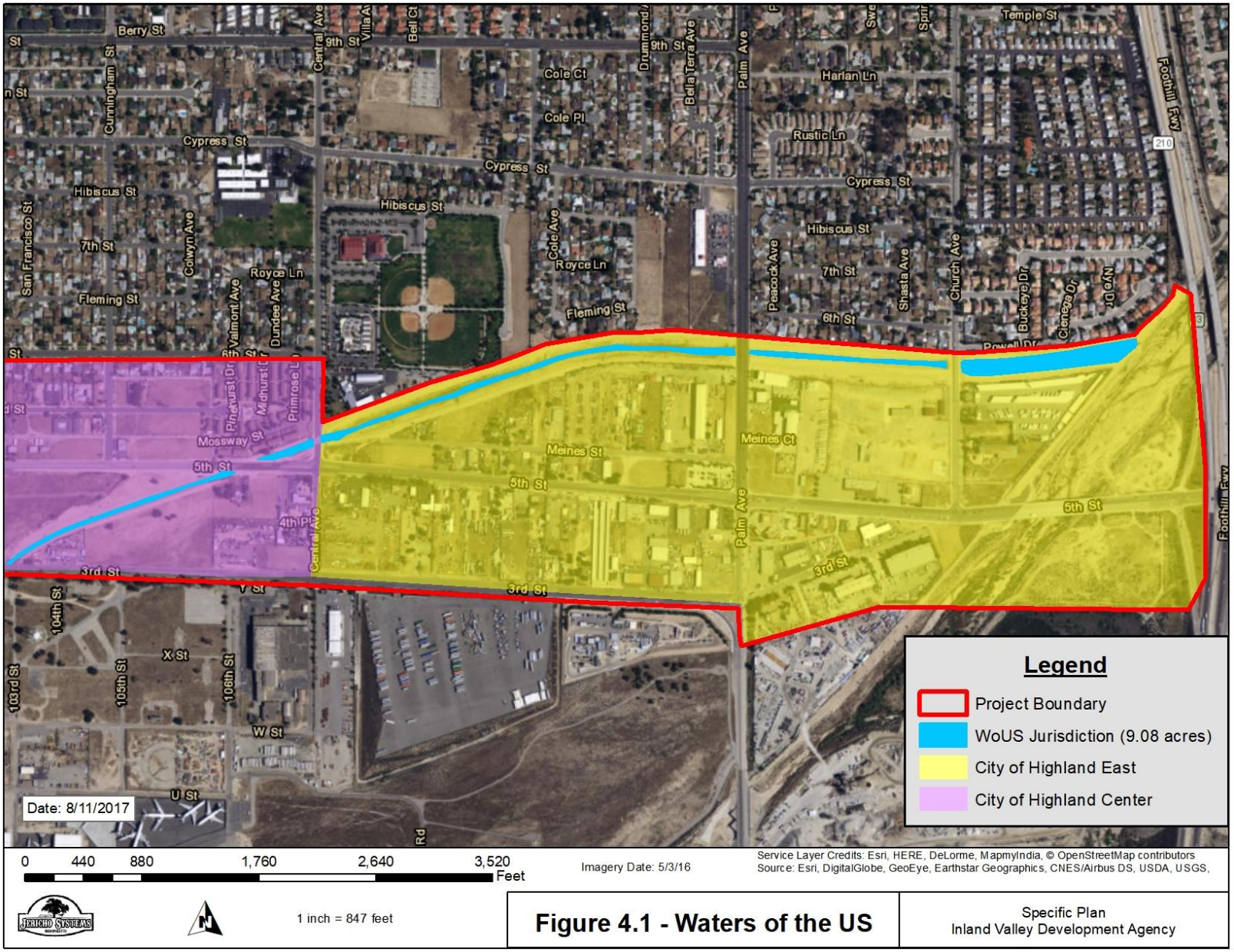

Legend
Project Boundary
City of Highland West
City of San Bernardino
Vine St
7th St
Fairfax Ln
Donna Dr
Elmwood Rd
Bonnie St
Merito Ave
Golondrina Dr
Elm Ave
Sterling Ave
Fleming St
6th St
Tippecanoe Ave
5th St
Michael Dr
Del Rosa Dr
Del Rosa Ave
Shirley Ave
4th St
Marilyn Ave
Court St
E 3rd St
Perimeter Rd
2nd St
E 2nd St
Date: 8/11/2017
0 345 690 1,380 2,070 2,760 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 667 feet
Figure 3 - Specific Plan West
Specific Plan
Inland Valley Development Agency

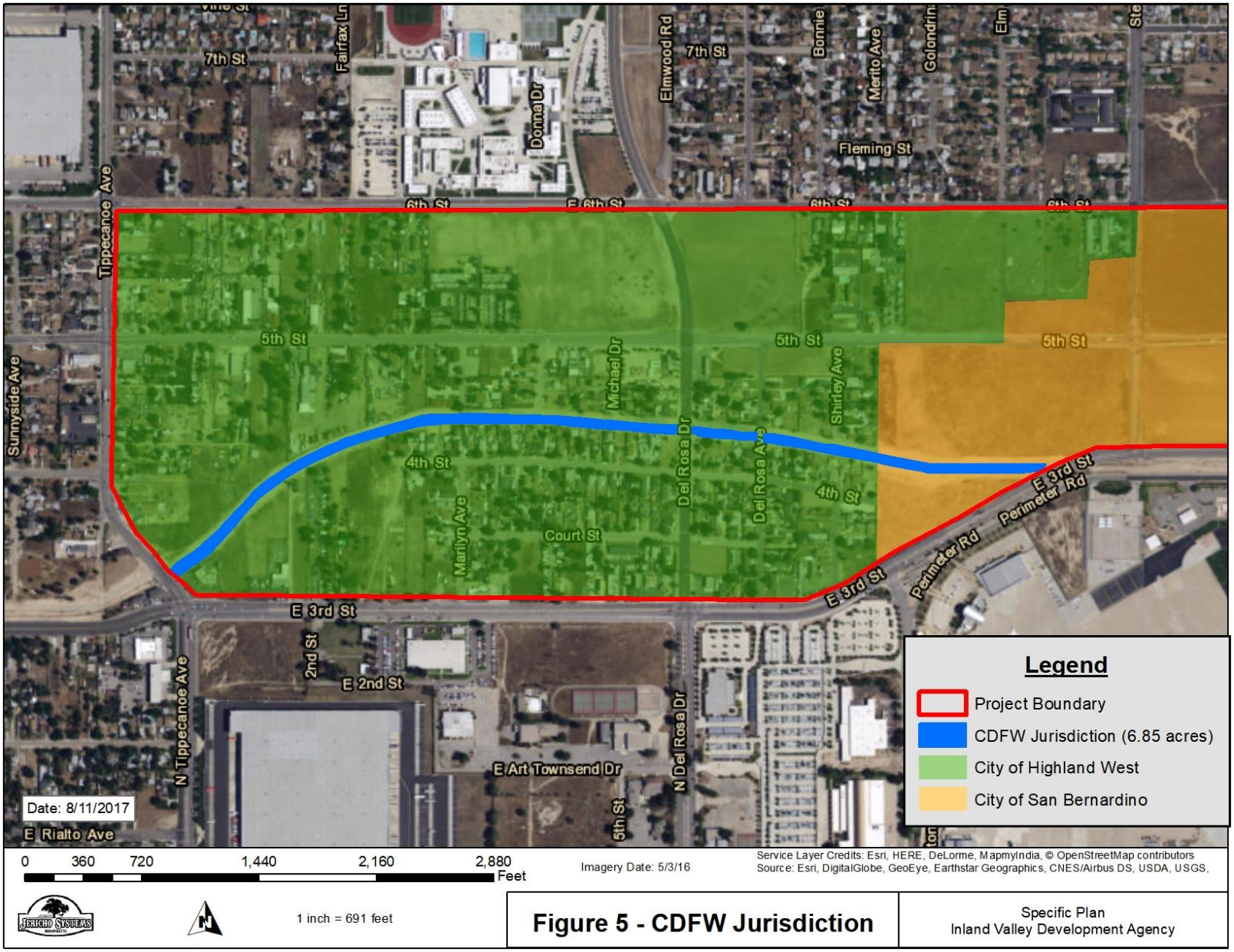

Legend
Project Boundary
City of Highland West
City of San Bernardino
City of Highland Center
Union St
Cypress St
Victoria Ave
Vine St
7th St
Flemming St
Bertie Ln
6th St
Ward St
Mossway St
5th St
E 5th St
E 3rd St
Perimeter Rd
Z St
X St
Y St
W St
U St
100th St
102nd St
103rd St
104th St
105th St
106th St
N Leland Norton Way
San Bernardino Int'l Airport
Date: 8/11/2017
0 500 1,000 2,000 3,000 4,000 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 1,042 feet
Figure 3.1 - Specific Plan Center
Specific Plan
Inland Valley Development Agency

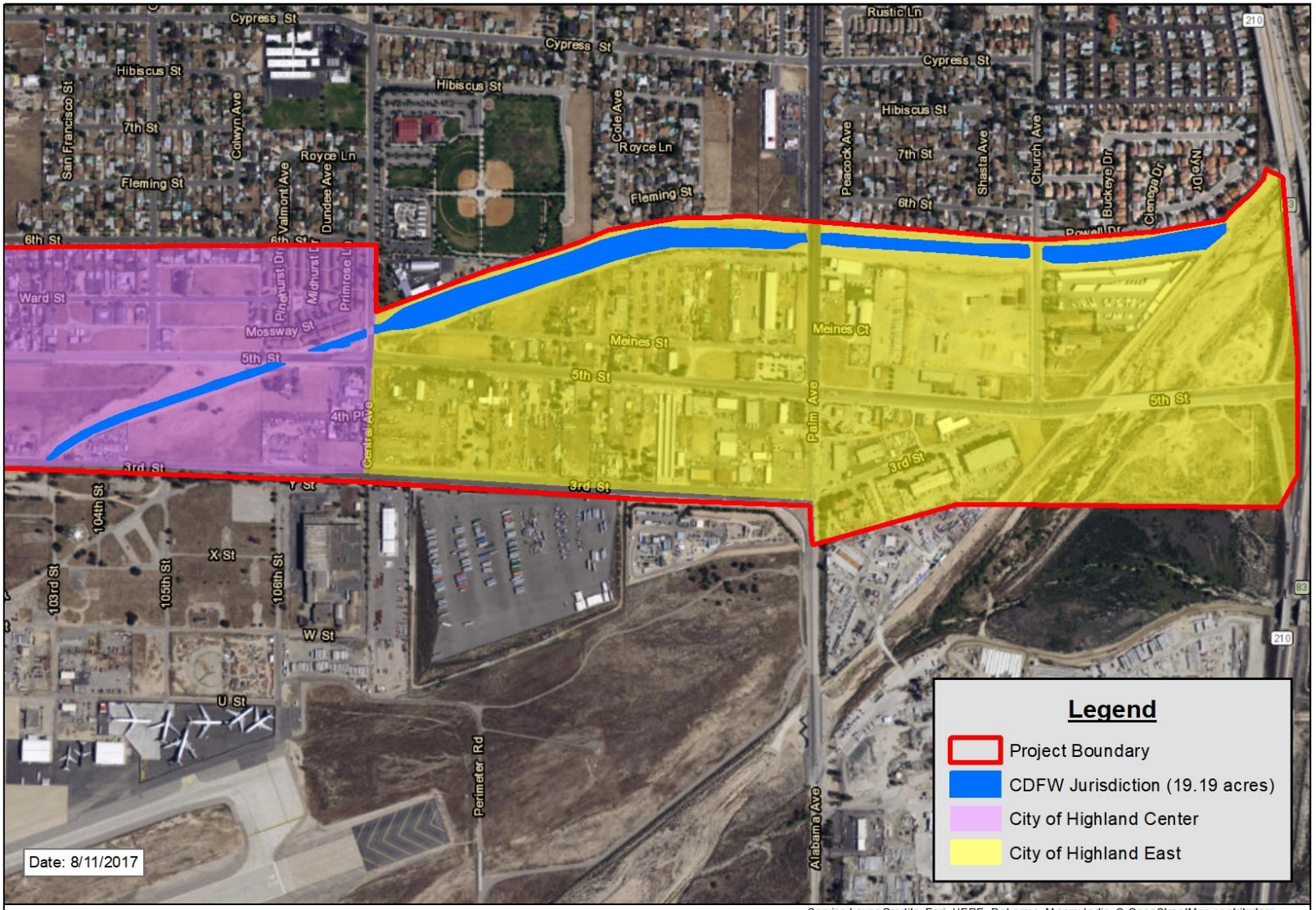

Legend
Project Boundary
City of Highland East
City of Highland Center
Date: 8/11/2017
0 500 1,000 2,000 3,000 4,000 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 1,042 feet
Figure 3.2 - Specific Plan East
Specific Plan
Inland Valley Development Agency


7th St
Fairfax Ln
Donna Dr
Elmwood Rd
7th St
Bonnie
Merito Ave
Golondrin
Elm
Fleming St
Tippecanoe Ave
6th St
E 6th St
5th St
Michael Dr
Del Rosa Dr
Del Rosa Ave
Shirley Ave
4th St
Marilyn Ave
Court St
E 3rd St
Perimeter Rd
2nd St
E 2nd St
Tippecanoe Ave
E Art Townsend Dr
N Del Rosa Dr
Date: 8/11/2017
Legend
Project Boundary
WoUS Jurisdiction (2.93 acres)
City of Highland West
City of San Bernardino
0 345 690 1,380 2,070 2,760 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 667 feet
Figure 4 - Waters of the US
Specific Plan
Inland Valley Development Agency

Tom Dodson
BRA – Specific Plan Amendment
August 11, 2017




7th St
Fairfax Ln
Donna Dr
Elmwood Rd
7th St
Bonnie
Merito Ave
Golondrina
Elm
Fleming St
6th St
E 6th St
Tippecanoe Ave
5th St
Michael Dr
Del Rosa Dr
Shirley Ave
Sunnyside Ave
4th St
Del Rosa Ave
Marilyn Ave
Court St
E 3rd St
Perimeter Rd
2nd St
E 2nd St
N Tippecanoe Ave
E Art Townsend Dr
N Del Rosa Dr
5th St
E Rialto Ave
Date: 8/11/2017
Legend
Project Boundary
CDFW Jurisdiction (6.85 acres)
City of Highland West
City of San Bernardino
0 360 720 1,440 2,160 2,880 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 691 feet
Figure 5 - CDFW Jurisdiction
Specific Plan
Inland Valley Development Agency


Cypress St
Hibiscus St
7th St
Fleming St
6th St
Royce Ln
Rustic Ln
Ward St
Mossway St
5th St
Meines St
Meines Ct
4th Pl
3rd St
Palm Ave
Central Ave
104th St
103rd St
105th St
106th St
X St
W St
U St
Perimeter Rd
Alabama Ave
Legend
Project Boundary
CDFW Jurisdiction (19.19 acres)
City of Highland Center
City of Highland East
Date: 8/11/2017
0 450 900 1,800 2,700 3,600 Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 865 feet
Figure 5.1 - CDFW Jurisdiction
Specific Plan
Inland Valley Development Agency

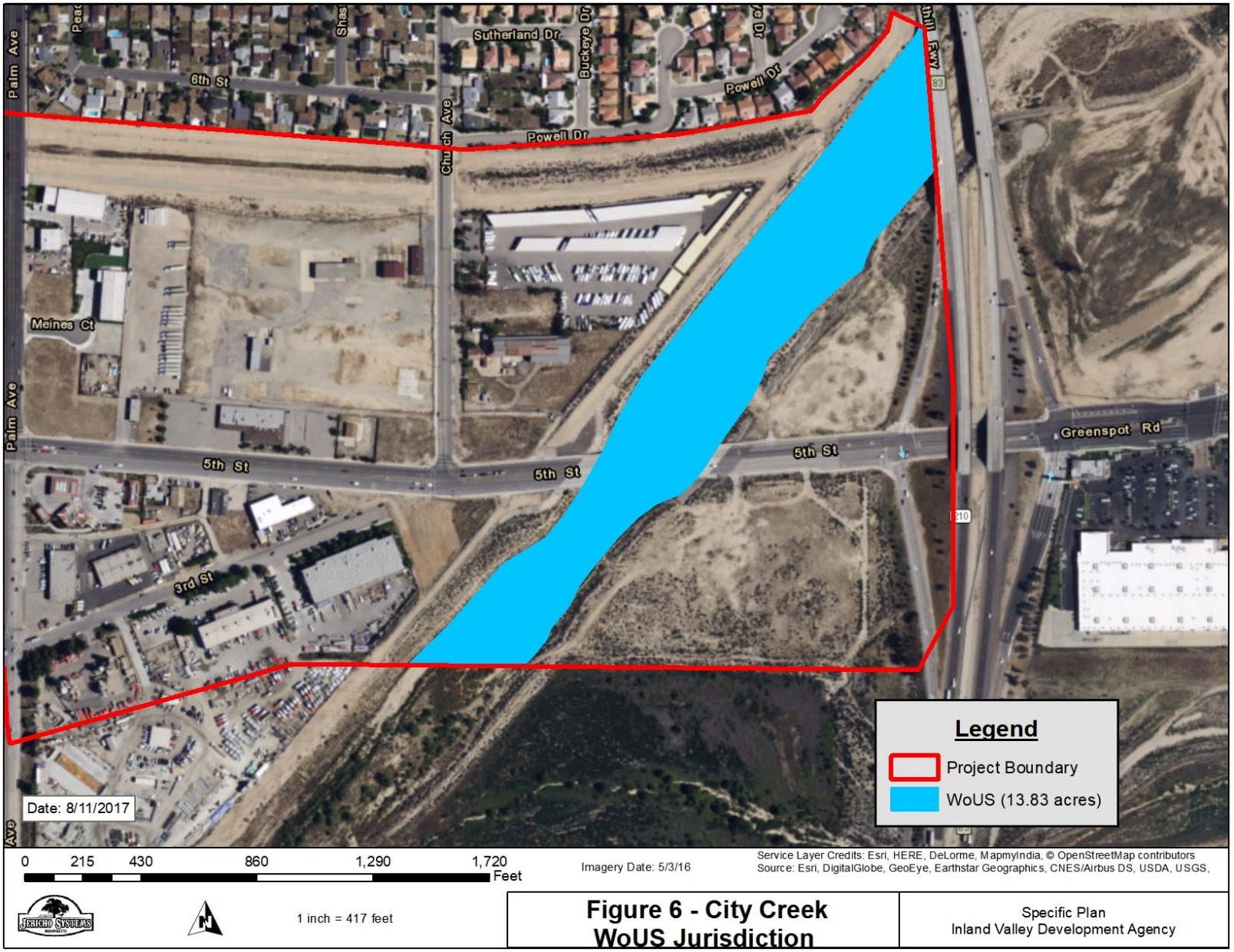


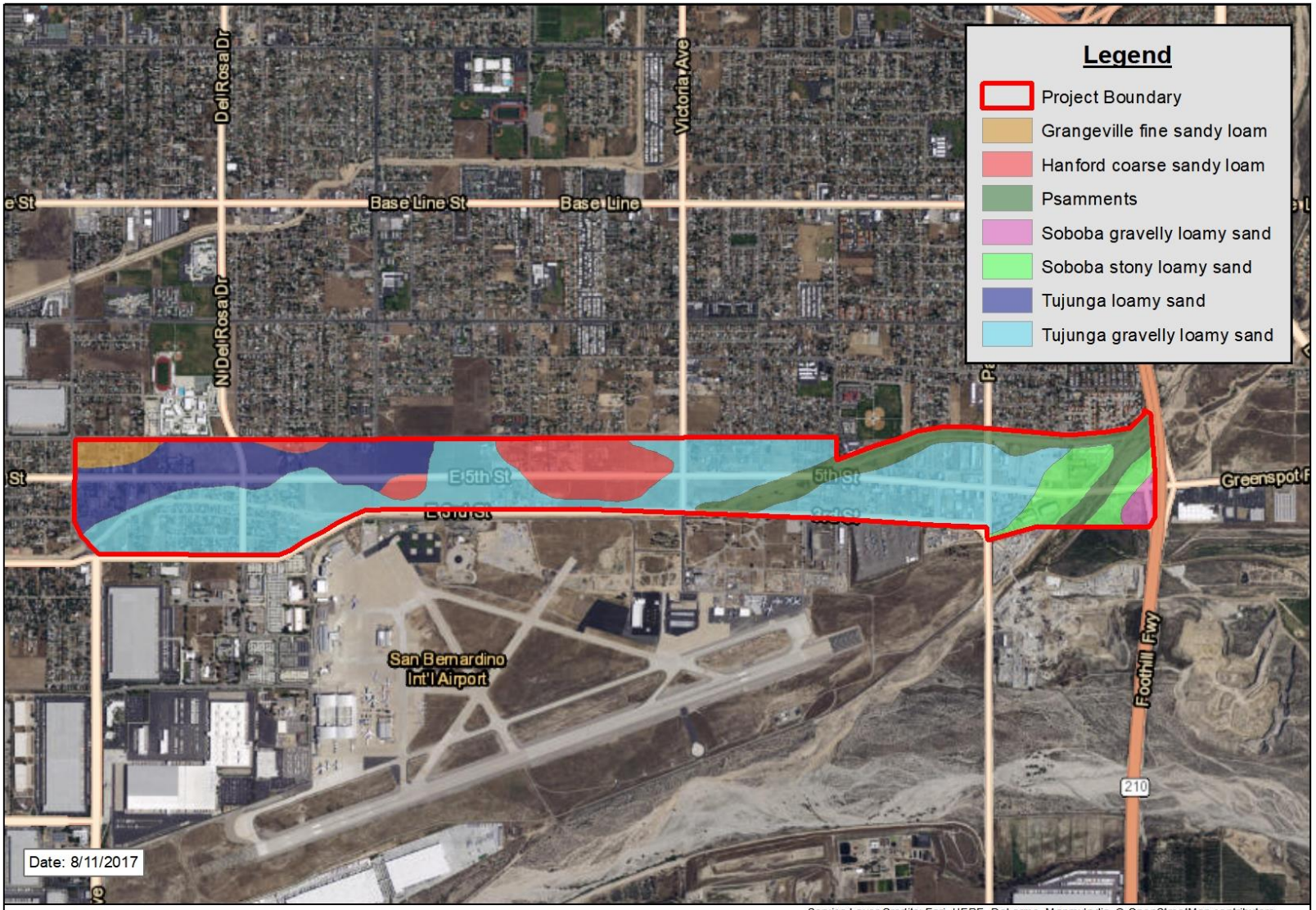
Figure 6 - City Creek WoUS Jurisdiction

Specific Plan
Inland Valley Development Agency



Figure 6.1 - City Creek CDFW Jurisdiction

Specific Plan
Inland Valley Development Agency


Legend
Project Boundary
Grangeville fine sandy loam
Hanford coarse sandy loam
Psamments
Soboba gravelly loamy sand
Soboba stony loamy sand
Tujunga loamy sand
Tujunga gravelly loamy sand
Del Rosa Dr
N Del Rosa Dr
Victoria Ave
Base Line St
Base Line
E 5th St
5th St
Greenspot
San Bernardino Int'l Airport
Foothill Fwy
210
Date: 8/11/2017
0 1,300 2,600 5,200 7,800 10,400
Feet
Imagery Date: 5/3/16
Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
1 inch = 2,500 feet
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Specific Plan
Inland Valley Development Agency

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BRA / JD (2020)

BIOLOGICAL RESOURCES ASSESSMENT
JURISDICTIONAL DELINEATION REPORT

Airport Gateway Specific Plan Project
Cities of San Bernardino and Highland, CA

Date Prepared: August 22, 2020

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Certification

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Contact: Shay Lawrey, President and Ecologist/Regulatory Specialist

Certification: I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this Biological Resources Repot to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me and/or under my direct supervision.



_____
Shay Lawrey, Ecologist/Regulatory Specialist

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1 INTRODUCTION

On behalf of Tom Dodson and Associates, Jericho Systems, Inc. (Jericho) conducted a biological resources assessment (BRA) and jurisdictional delineation (JD) for the Airport Gateway Specific Plan (AGSP or Specific Plan area) located in the cities of San Bernardino and Highland, San Bernardino County, California. The purpose of the BRA/JD was to identify sensitive or protected biological and hydrological resources that occur within, or adjacent to, the Specific Plan area and to determine if any project-related impacts would result to those resources. Attention was focused on the overall Specific Plan area, the City Creek Bypass Channel which traverses the eastern portion of the Specific Plan area, as well as sensitive species known to occur locally such as the burrowing owl (*Athene cunicularia hypugaea*) [BUOW] which is known to occupy or have occurred previously in the Specific Plan area.

This report is designed to address potential effects to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA), or species designated as sensitive by California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS). This report also addresses resources protected under the Migratory Bird Treaty Act (MBTA), federal Clean Water Act (CWA) regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) respectively, and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW.

1.1 Site Location

The Specific Plan area is an approximately 679-acre area located within the cities of San Bernardino and Highland, San Bernardino County, California, within northwest quarter of the *Redlands* U.S. Geological Survey (USGS) 7.5-minute topographic map series (Figures, 1, 2, and 3). The Specific Plan area is just north of the San Bernardino International Airport (SBIA) and extends to the north side of 6th street. The western boundary extends to the Tippecanoe Ave, and to the east as far as the I-210, along 3rd and 5th streets near SBIA (Figures 1-3). The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194 acres).

The north side of the Specific Plan area is predominantly bordered by vacant lands, as well as low to medium density residential uses and is located directly across the street from several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park, and the Highland Branch Library.

2 PROJECT DESCRIPTION

Overall, the purpose of developing a Specific Plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area. The primary goal of the AGSP is to implement a streamlined regulatory framework for the plan area that includes a comprehensive theme for the corridor, align land use and development codes, provide efficient and effective access to freeway corridors, improve infrastructure and drainage, and develop streetscape and design standards that support opportunities for transition and change within the planning area.

Regional access to the Specific Plan area is located within the cities of San Bernardino and Highland, is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the Specific Plan area. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5

miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan area eastern boundary. The streets that service the Specific Plan area are Waterman Avenue, Tippecanoe Avenue, Del Rosa Drive, Sterling Avenue, Victoria Avenue, 6th Street, 5th Street and 3rd Street.

The AGSP also identifies improvements to existing roads to improve connectivity to major thoroughfares.

2.1 Land Use

The Specific Plan area occupies a visually prominent and heavily trafficked location as the gateway to the SBIA from the I-210 freeway; however, the irregular jurisdictional boundaries, long and narrow configuration of the blocks, and the narrow lot depths have made economic development of the area more challenging than areas to the south and west that had larger parcel configurations. The Specific Plan area is also located in a unique transition area between the established residential neighborhoods to the north, distribution centers to the west and the boundary of the SBIA to the south.

The proposed land uses in the Highland and San Bernardino General Plans envisioned light industrial, business park, general commercial and residential uses, but much of that never came to fruition partly because of the configuration of the properties in the project area (requiring significant lot consolidation of existing residential uses to create an industrial lot) and partly because demand for retail was not as strong in this area (shoppers opted to go to other locations along the Baseline Corridor or near the freeways).

Existing land uses surrounding the site include:

North: Immediately 6th Street single-family residential properties
East: Immediately Interstate 210, industrial land uses
South: SBIA and industrial uses
West: Commercial, residential, and institutional

The existing land use category most affected is "Vacant" land which comprises about 209 acres of the existing land within the Specific Plan area. The total acreage within the Specific Plan planning area is 669.73 acres, so the 209 acres of vacant land constitutes about 31.2 percent of the total acreage in the planning area.

The three uses envisioned in the future within the planning area are:

- Industrial Mixed Use
- Right-of-Way (ROW)
- Floodway

In summary, the AGSP envisions replacing the existing mix of uses within the planning area (residential, commercial, educational, industrial, and vacant land) with approximately 9.2 million square feet (sf) of Industrial Mixed Uses. To accomplish this land use transition within the Specific Plan area would require development of up to 251.26 acres of existing developed acreage and conversion of about 209 acres of vacant land to Industrial Mixed Uses. Also, due to the number of small parcels that existing within the AGSP, future developers and project proponents will have to assemble land parcels in order to fully develop the AGSP. The areas of most intense property consolidation must occur in the area between Tippecanoe and Del Rosa on the west and Victoria and the freeway on the east.

2.2 Environmental Setting

The local area climate of the Specific Plan area is semi-arid, with an average annual temperature of 67°F and a range from 25-110°F. The rainy season begins in November and continues through March, with the quantity and frequency of rain varying from year to year. The average annual rainfall is approximately 18.1 inches. Elevations within the Plan Area range from approximately from 1,470 feet to 1,500 feet above mean sea level. The terrain is level, with a gradual increase in elevation to the north and east.

There are no distinctive topographic features or rock outcroppings that exist within or adjacent to the Specific Plan area.

Under present circumstances, the Specific Plan area contains a mix of uses, with large expanses of vacant land. Where undeveloped, the onsite soils have historically been used to support dry farming activities. Most native vegetation has been removed by past activities, and most trees and shrubs are found where limited human landscaping occurs.

2.3 Ecoregion

According to the U.S. Environmental Protection Agency (EPA) Regional map, the Plan Area is located in the Inland Valleys Ecoregion. An Ecoregion is a regional area that has similar ecosystems in terms of type, quality, and quantity of environmental resources. The Inland Valleys Ecoregion consists of alluvial fans and basin floors immediately south of the San Gabriel and San Bernardino Mountains of Southern California and includes the San Jacinto and Perris Valleys toward the south. This ecoregion includes some floodplains along the Santa Ana River. The soil moisture regime is xeric which is characterized by long periods of drought in the summer. Historically, vegetation in this ecoregion included Riversidean coastal sage scrub, valley grasslands, and riparian woodlands. However, currently, much of this ecoregion, including the Plan Area and surrounding vicinity is heavily urbanized.

2.4 Soils

Figure 4 shows the soils within the Specific Plan area which consists of the following:
Grangeville fine sandy loam, saline-alkali; Hanford coarse sandy loam, 2 to 9 percent slopes; Hanford sandy loam, 0 to 2 percent slopes; Psamments, Fluvents and Frequently flooded soils; Soboba gravelly loamy sand, 0 to 9 percent slopes; Soboba stony loamy sand, 2 to 9 percent slopes; Tujunga loamy sand, 0 to 5 percent slopes; Tujunga gravelly loamy sand, 0 to 9 percent slopes.

2.5 Watershed and Hydrology

The Specific Plan Area is located within the Santa Ana River Wash Watershed (HUC 180702030403) in the. Surface runoff within the Specific Plan area generally flows to the south and west. A small man-made drainage channel, City Creek Bypass, originates along the western levee of City Creek just north of the State Route 30 (I-210) and 5th Street Interchange and crosses through the central-southern portion of the Specific Plan area along 3rd and 5th Streets and extends west to Warm Creek Channel where it terminates at a confluence with Twin Creek outside of the planning area. The City Creek Bypass typically experiences flows during storms and flows to the south over a very shallow grade.

The existing drainage system in the project area is fairly rudimentary. The following information is abstracted from a study of the area hydrology by JLC Engineering & Consulting, Inc, titled "*Preliminary Hydrology and Channel Design for City Creek By-Pass Channel*," April 20, 2020. The study concludes that downstream of the Victoria Avenue-City Creek Bypass Channel it is insufficient to convey the 100-

year flood flows in its current configuration. The study includes a new channel design (two alternatives) that will need to be installed to have sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. For reference, Figure 5 identifies the National Hydrology Dataset flow lines and FEMA 100-Year flood zones.

As part of the proposed Project, the channel may be altered, although final designs are not yet complete.

3 REGULATORY BACKGROUND

3.1 Clean Water Act (CWA)

The CWA is the principal federal law that governs pollution in the nation's lakes, rivers, and coastal waters. Originally enacted in 1972 as a series of amendments to the Federal Water Pollution Control Act of 1948 the Act was last amended in 1987. The overriding purpose of the CWA is to "restore and maintain the chemical, physical and biological integrity of the nation's waters." Discharges of dredged or fill material in Waters of the U.S (WoUS) are regulated pursuant to Sections 404 and 401 of the CWA. The congressional intent of Section 404 of the CWA as articulated in Section 10 is to "maintain and restore the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA gives the USACE and the U.S. Environmental Protection Agency (EPA) regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters." Permits issued by the USACE in California require certification by the State of California that the proposed discharge complies with the requirements of the California Porter-Cologne Water Quality Control Act. These certifications are issued by the State Water Resources Control Board or one of the nine RWQCBs.

Waters are defined broadly under the CWA to include all traditionally navigable waters, including those used or susceptible for use in interstate commerce, including all waters subject to the ebb and flow of the tide, interstate waters, territorial seas, impoundments and tributaries. Waters may also include wetlands and other waters that are not traditionally navigable such as wetlands that are adjacent to traditionally navigable waters. Wetlands are defined under federal regulations as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

3.1.1 US Army Corps of Engineers Regulated Activities

Pursuant to Section 404 of the CWA, the US Army Corps of Engineers (USACE) regulates the discharge (temporary or permanent) of dredged or fill material into Waters of the US (WoUS), including wetlands. A discharge of fill material includes, but is not limited to, grading, placing riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material into WoUS. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, performing certain drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling.

The limit of USACE jurisdiction, excluding wetlands and tidal waters, is delineated using the Ordinary High Water Mark (OHWM), defined in CFR 328.3(e) as:

> *…that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction*

of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

On April 21, 2020, the United States Environmental Protection Agency (US EPA) and the United States Army Corps of Engineers (Corps) published, in the Federal Register, their final rule (2020 Rule) that revised the definition of "waters of the United States," narrowing the scope of waters subject to federal regulation under the Clean Water Act, particularly with respect to adjacent wetlands and ephemeral streams, and also abandons the "significant nexus text" in the 2015 Rule.

The 2020 Rule defines four categories of waters as jurisdictional:

1. *Waters which are traditionally thought of as "waters of the United States," those being the territorial seas and traditional navigable waters. 33 CFR 328.3(a).*
2. *Perennial and intermittent tributaries that contribute surface water flow to the territorial seas and navigable waters either directly or indirectly through other jurisdictional waters. 33 CFR 328.3(b).*
3. *Lakes, ponds, and impoundments that are standing bodies of water that contribute surface water flow in a typical year to a territorial sea or a traditional navigable water either directly or through another jurisdictional water. 33 CFR 328.3(c).*
4. *Wetlands that abut a territorial sea or traditional navigable water, or other jurisdictional water and that are inundated by flooding by a jurisdictional water in a typical year, are physically separated from a jurisdictional water by a natural berm, dune or similar feature or physically separated by an artificial structure so long as that artificial structure allows for a direct hydrologic surface connection between the wetlands and a jurisdictional water in a typical year. 33 CFR 328.3(c)*

The surface water flow is gauged in the "typical year" which is defined to mean "when precipitation and other climatic variables are within the normal periodic range (e.g. seasonally, annually) for the geographic area of the applicable aquatic resource based on a rolling thirty-year period." 33 CFR 328.3(c)(13). The "significant nexus test" with its reliance on whether a water has a significant nexus to another jurisdictional water has been abandoned in favor of this categorical approach.

The 2020 Rule excluded the following:

1. *Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;*
2. *Groundwater, including groundwater drained through subsurface drainage systems;*
3. *Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;*
4. *Diffuse stormwater run-off and directional sheet flow over upland;*
5. *Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;*
6. *Prior converted cropland;*
7. *Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
8. *Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;*
9. *Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;*
10. *Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;*
11. *Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and*
12. *Wastewater treatment systems.*

"Ephemeral" is now defined as "surface water flowing or pooling only in direct response to precipitation (e.g. rain or snow fall)."

3.2 Activities Regulated by the State

A federal permit or license cannot be issued that may result in a discharge to WoUS unless certification under Section 401 of the CWA is granted or waived by EPA, the state, or the tribe where the discharge would originate (EPA 2010).

Pursuant to Section 401 of the CWA:

> *...any applicant for a federal permit for activities that involve a discharge to WoUS shall provide the federal permitting agency a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal CWA.*

Therefore, before USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification or waiver, as applicable. Under Section 401 of the CWA, all activities that are regulated at the federal level by USACE are also regulated at the state level.

Therefore, state jurisdiction usually includes all waters or tributaries to waters that are determined to be WoUS and, similar to WoUS, are typically delineated at the OHWM. State-regulated WoUS are overseen by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs).

However, if waters are determined not to be WoUS, they may still be subject to state jurisdiction based on the Porter-Cologne Act, which are regulated by the SWRCB and the RWQCBs under California's Porter-Cologne Water Quality Control Act (Porter-Cologne). In April 2019, the SWRCB adopted a state wetlands definition and procedures for the discharge of dredged or fill material into waters of the State (collectively, the Procedures). The Procedures are expected to become effective in mid-2020. The Procedures establish a permit process for discharges to both wetland and non-wetland waters of the State. Under Porter-Cologne and the Procedures, "Waters of the State" are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." Under the Procedures, a water of the State is a wetland "if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both, (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate, and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation." This definition varies from the federal definition in several respects, most notably that the state considers unvegetated features, such as mudflats or playas, to constitute wetlands.

3.2.1 California Fish and Game Code

Sections 1600 to 1616 of the California Fish and Game Code require any person, state, or local government agency or public utility (i.e., an entity) to notify the CDFW before beginning any activity that will divert the flow of or substantially modify a river, stream, or lake or result in the deposit of certain waste materials that may pass into a river, stream or lake. Following receipt of such a notification, CDFW determines whether the activity may affect fish and wildlife resources and, if it will, issues a "Lake and Streambed Alteration Agreement" to be entered into by the entity and CDFW and which authorizes the activity in question. CDFW defines the term "stream" as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic regime [i.e., 'circa 1800 to the present'], and where the width of its course can

reasonably be identified by physical or biological indicators." CDFW regulates rivers and streams to their "maximum expression" on the landscape, often including the entire floodplain. *MESA Field Guide, Mapping Episodic Stream Activity* (2011).

3.3 Special Status Species Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to the continued existence and existing knowledge of population levels.

3.3.1 Federal Endangered Species Act

The USFWS administers the federal ESA of 1973. The ESA provides a legal mechanism for listing species as either threatened or endangered, and a process of protection for those species listed. Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include adverse modification of habitats used by a threatened or endangered species during any portion of its life history. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act. Take authorization can be obtained under Section 7 or Section 10 of the
act.

3.3.2 California Endangered Species Act

The CDFW administers the CESA. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. And a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants. Further, all raptors and their nests are protected under Section 3503.5 of the California Fish and Game Code (FGC).

4 METHODS

4.1 Biological Resources Assessment

As stated above, the objective of this document is to determine whether the Specific Plan area supports special status or otherwise sensitive species and/or their habitat, and to address the potential effects associated with the proposed project on those resources. The species and habitats addressed in this document are based on database information and field investigation.

Prior to conducting the field study, species and habitat information was gathered from the relevant industry standard databases for the *Redlands* USGS quadrangle to determine which species and/or habitats would be expected to occur in the Specific Plan area. These sources include:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Information for Planning and Consultation System (IPaC);
- California Natural Diversity Database (CNDDB) *Rarefind 5*;

- CNDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- USFWS Designated Critical Habitat Maps

Jericho biologists Shay Lawrey, Craig Lawrey and Lauren Hall conducted a general BRA on March 4 and 5, 2020 with an emphasis on special-status species known to occur in the area. Each member of the survey team has advance degrees, expertise and is experienced in conducting floristic and faunal field surveys, has knowledge in taxonomy and natural community ecology, is familiar with the habitats and sensitive species that occur locally and the applicable protective state and federal statutes, and has experience with analyzing impacts on natural communities.

Due to the presence of suitable habitat within the Specific Plan area for BUOW, the survey team conducted focused protocol BUOW surveys on April 20, May 12, May 29 and June 21, 2020 in accordance with the *Burrowing Owl Survey Protocol and Mitigation Guidelines"* prepared by the California Burrowing Owl Consortium and the March 7, 2012 *"California Department of Fish and Game Staff Report on Burrowing Owl Mitigation."* The protocol survey was conducted consistent with the rule which recommends each visit occur at least three weeks apart during the peak of the breeding season, commonly accepted in California as between April 15 and July 15.

For BUOW natural and non-natural substrates were examined for potential burrow sites. All burrows encountered were examined for shape, size, molted feathers, owl whitewash, suitable surrogate burrows, cast pellets and/or prey remains. Disturbance characteristics and all other animal sign encountered within the survey area were recorded.

The survey team conducted systematic and comprehensive surveys during calm weather, one hour before dawn to three hours after dawn and again two hours before dusk to one hour after dusk each day. Weather conditions during the surveys consisted of clear skies with temperatures ranging from 54° F to 78° F and 5 mph winds. Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the project area.

The surveys included 100 percent coverage of Specific Plan area where accessible and feasible due to private occupied parcels. Field work included the following activities:

a) Recording dominant vegetation communities and plant species
b) Focused BUOW surveys
c) Focused searches for woolystar (which can be surveyed for any time of year),
d) Systematic searches for heteromyid burrows and burrowing owl surrogate burrows
e) General wildlife survey and inventory
f) Assessment of habitat suitability for sensitive species.

The surveyors concentrated their survey efforts inside and directly adjacent to City Creek Bypass Channel, along roads in the Specific Plan area, and vacant parcels where accessible. All plant species present on site were identified in the field or, if unknown, either a photo or relevant pieces of the plant were collected. Identification of species utilized a Leica 7- 35x dissecting scope and floras such as the *Jepson Manual of the California Flora, Manual of North American Grasses*, and Calflora.org. Plant communities were identified within the project area; all plant and alliance classifications will in

accordance with Sawyer, John O., Keeler-Wolf, Todd, and Evens, Julie M. 2009, *A Manual of California Vegetation. Second Edition*, California Native Plant Society, Sacramento, California.

Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species actually observed, expected wildlife usage of the sites was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area.

The primary focus of the biological surveys was to identify potential habitat for the following special status wildlife and critical habitat found locally in surrounding areas:

- burrowing owl (*Athene cunicularia hypugaea*) [BUOW]
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) [SBKR]
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) critical habitat
- Santa Ana sucker (*Catostomus santaannae*) critical habitat
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum)*
- Coastal California gnatcatcher (*Polioptila californica californica*)

The suitability of habitat on-site was assessed for these species, taking into consideration the different habitat requirements and any Primary Constituent Elements (PCEs) defined for these species. It is acknowledged that some wildlife species with a nocturnal pattern of activity or otherwise difficult to detect may have not been identified by the survey. No trapping/focused surveys for SBKR were conducted. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (1997) and Fisher (2001) for amphibians and reptiles, Jones, et al., (1992) for mammals and American Ornithologists' Union (AOU) Check-list (2006) for birds.

No limitations affected the results and conclusions given herein. Surveys were conducted during the appropriate season to observe the target species, in good weather conditions and by qualified biologists who followed all pertinent protocols.

4.2 Jurisdictional Delineation

The survey team also evaluated the Specific Plan area for the limits of jurisdictional waters, i.e. WoUS as regulated by the USACE and RWQCB, and streambed and associated riparian habitat as regulated by the CDFW. The evaluation of CWA WoUS was based upon the Corps' regulations and technical guidance issued by the USACE including, among other sources described further below, (i) *USACE Wetlands Research Program Technical Report Y-87-1 (on-line edition), Wetlands Delineation Manual, Environmental Laboratory, 1987 (Wetland Delineation Manual)*, *USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, December 2008 (Arid West Supplement)* and *USACE A Guide to Ordinary High Water Mark (OHWM) Delineation Arid West Region of the United States, 2010.* The lateral extent of USACE jurisdiction was measured at the Ordinary High Watermark (OHWM), which is indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris.

Evaluation of FGC Section 1600 Streambed Waters followed guidance in the FGC in the *MESA Field Guide*, described above, pursuant to which CDFW claims jurisdiction beyond traditional stream banks and the outer edge of riparian. Under MESA, the term stream is defined broadly to include "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic regime [i.e., 'circa 1800 to the present'], and where

the width of its course can reasonably be identified by physical or biological indicators." Specifically, CDFW jurisdiction was delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation. Here the extent of associated riparian vegetation was used to mark the lateral extent of the jurisdictional areas. Other data recorded included bank height and morphology, substrate type, and vegetation within and adjacent to the low flow streambed.

A variety of reference materials relevant to the project site were reviewed during the course of this delineation, including historical and current aerial imagery, Federal Emergency Management Agency (FEMA) flood insurance rate maps (FIRM), National Oceanic & Atmospheric Administration (NOAA) climate data, USFWS National Wetland Inventory (NWI) and EPA Water Program "My Waters" data layers and United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) web soil survey. The data provided in the Web Soil Survey provides a standard basis for the soil textures and types that are assigned a hydric indicator status of "hydric" or "non-hydric" by the National Technical Committee for Hydric Soils.

The wetland investigation was based on the three-parameter approach (vegetation, soil, and hydrology). Potential wetland areas were assessed to the outer reach of the applicable vegetative community and corresponding soils that displayed wetland characteristics. Plant species were identified and given an indicator status as prescribed in the 2016 National Wetland Plant List (Arid West Region) (Lichvar, 2016). Vegetation nomenclature follows The Jepson Manual, Vascular Plants of California, 2nd Edition (Baldwin, 2012). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology.

4.2.1 Hydrophytic vegetation

Hydrophytic (wetland) vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2016 National Wetland Plant List (Arid West Region) (Lichvar, 2016). Each species on the list is rated according to a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have wetland indicator status, i.e., be rated as Obligate Wetland (OBL), Facultative Wetland (FACW) or Facultative (FAC).

Table 1
Wetland Indicator Vegetation Categories

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

4.2.2 Hydric Soil

Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. Generally, hydric soils are dark in color resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration.

Generally, the hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are indicators suggesting a long-term reducing environment in the upper part of the soil profile. Typically, reducing conditions are most easily assessed using soil color.

a) Color characteristics (Hue, Value, and Chroma) were recorded using a standard Munsell soil color chart (Munsell Color 2009).
b) Soil physical characteristics were evaluated during the field delineations by excavating to a depth needed to evaluate potential hydric soil indicators below ground surface 18-24 inches.
c) Soils that exhibited hydric soil indicators, such as low chroma colors and/or evidence of reducing conditions met the hydric soil criterion per USACE (1987 and 2012).

The Arid West Supplement provides a list of 23 of hydric soil indicators known to occur in the Arid West region. Hydric soils are considered to be present at any sample plot where the soil samples met one or more of those 23 hydric indicators. As set forth in the Arid West Supplement (2008), some wetlands can be difficult to identify because wetland indicators, including those relating to soils, may be missing due to natural processes or recent disturbances. As set forth on Page 97 of the Arid West Supplement, sand and gravel bars within floodplains can be problematic because they may lack hydric indicators due to seasonal and annual depositions, resulting in sandy substrates that are low in iron and manganese content and have low organic matter content. Chapter 5 of the Arid West Supplement provides guidance for making wetland determinations in these and other "difficult-to-identify wetland situations," and was referred to for purposes of evaluating soil indicators in the City Creek Bypass Channel.

The riverine system within the Plan Area has varying patterns of increasing and decreasing flows associated with storms and seasonal variation in rainfall. The patterns of flow in conjunction with the size composition and amount of sediments that the flow carries or deposits, determines the dynamic nature of the channel. Here, the soils are sandy and highly porous and therefore typical field indicators for hydric soils are not present (e.g.: low chroma colors, mottling, organic matter, etc.).

4.2.3 Wetland Hydrology

Hydrology (water depth, extent of inundation, period of inundation) determines all other wetland characteristics. Federal Regulation 33 CFR 328.3(b) defines "wetlands" as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." According to the Corps' 1987 Wetland Delineation Manual, the primary hydrologic test to determine soil saturation was whether the area's water table rises to within 18 inches of the surface for seven consecutive days during the growing season (February-June).

Seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage are factors that control hydrology. Wetland hydrology indicators include: surface water, high water tables, saturation, water marks, sediment deposits, drift deposits, surface soil cracks, inundation visible on aerial imagery, water stained leaves, salt crusts, biotic crusts, aquatic invertebrates, hydrogen sulfide odor, oxidized rhizospheres along living roots, the presence of iron reduction in tilled soils, thin muck surfaces, drainage patterns, crayfish burrows, and shallow aquitards. The Project area was examined for primary or secondary indicators of wetland hydrology as described in the Arid West Supplement.

In normal rainfall years, the instream floodplain within the Project area is in a state of dynamic equilibrium in terms of how the flows move sediment. Large flood events change the main channel form and results in a reset. This of type of change occurs approximately every 20-50 years. The instream

floodplain is an infinitely adjustable complex of interrelations among flow, width, depth, bed resistance, sediment transport, and vegetation. Changes in any of these factors causes adjustments in all other factors. Thus, the instream floodplain in the Project area encompasses a riverine/wetland mosaic of wetlands, and other waters which include active channels and unvegetated wetlands.

5 RESULTS

5.1 Literature Review

According to the database queries, 49 sensitive species and habitats (13 plants, 33 animals, and 3 habitats) have been documented to in the *Redlands* USGS quadrangle. (See Appendix A for full list). The native sensitive habitats documented in the local vicinity are Riversidean alluvial fan sage scrub RAFSS, Southern Willow Scrub and Southern Sycamore-Alder Riparian Woodland. None of these habitats occur within or adjacent to the Specific Plan area.

As per the CNDDB and USFWS species occurrence data overlay, no sensitive species are documented within the Specific Plan area (Figure 6). However, some sensitive species including woollystar, SBKR and BUOW are documented in the literature in areas where suitable habitat occurs adjacent to the east (City Creek) and southeast corner (SBIA property and Santa Ana River) of the Specific Plan area.

Table 2 represents a compiled list of results from databases of the listed species which have been documented within approximately 3 miles of the Plan Area. A total of 10 listed species (5 plants, 5 animals) are identified. Table 2 also provides a potential to occur assessment based on the field investigations and surveyor's knowledge of the species and local ecology. Table 3, located at the end of the document, provides a complete list of State and/or federally listed threatened or endangered species CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

5.1.1 Critical Habitat

According to the databases, the developable area of the Specific Plan area is not located within designated Critical Habitat (CH) and is separated from the CH for the SBKR and Santa Ana sucker (*Catostomus santaanae*) [SASU] located to the south and east of the Plan Area by the SBIA (Figure 7). The CH in the east of the Specific Plan area are currently developed.

5.2 Field Review

5.2.1 General Habitat

Based on the field survey results, the overall conditions within the Plan Area are disturbed and degraded. The habitat within the Specific Plan area includes non-native grassland (Holland community code 42200), transitional bare areas (Holland community code 11760), and disturbed ground (Holland community code 11100). A small one-quarter acre sized vacant area located north of 5th Street, east of Central Avenue and west of City Creek in the Specific Plan area contains disturbed isolated buckwheat scrub alliance. Figure 8 identifies vegetation in the Specific Plan area. Please note that the vegetation map also serves as to where BUOW surveys were conducted. Appendix A contains photos of typical habitat within the Specific Plan area.

Table 2:
Listed Species Occurrence Potential within the Action Area

Scientific Name	Common Name	Federal Status	Habitat	Potential to Occur
Mammals				
Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	None of the Primary Constituent Elements for this species occur on site. A small ¼ acre sized vacant area located north of 5th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support SBKR. Aside from this small area, the Specific Plan area is separated from known populations of this species by active Airport operations, high volume roadways, and industrial and commercial uses. The potential for this species to occur is **low**.
Dipodomys stephensi	Stephens' kangaroo rat	Endangered	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Suitable habitat for this species does not exist within the Specific Plan area. The site location is outside of the current range of this species. The potential for this species to occur is **none**.
Birds				
Polioptila californica	coastal California gnatcatcher	Threatened	Obligate, permanent resident of coastal sage scrub below 762 m in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	None of the Primary Constituent Elements for this species occur on site. A small ¼ acre sized vacant area located north of 5th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support CAGN. Aside from this small area, the Specific Plan area is separated from known populations of this species by active Airport operations, high volume roadways, and industrial and commercial uses. The potential for this species to occur is **low**.
Vireo bellii pusillus	least Bell's vireo	Endangered	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 610 m. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	This species is found locally within the Santa Ana River in areas that are highly suitable for this species. The nearest location is approx.. 2.5 miles to the west southwest of the Specific Plan area. Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is **none.**
Empidonax traillii extimus	Southwestern Willow Flycatcher	Endangered	Habitat consists of dense linear stands of riparian. Dominant species include salix lasiolepis, salix hindsiana, populus fremontii and bacharis glutinosa.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is **none.**

Scientific Name	Common Name	Federal Status	Habitat	Potential to Occur
Plants				
Arenaria paludicola	marsh sandwort	Endangered	Habitat consist of riparian, alluvial-fans, bogs/fens, brackish-marsh, freshwater-marsh, lake-margins.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is **none**.
Berberis nevinii	Nevin's barberry	Endangered	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is **none**.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	Endangered	Habitat consist of riparian, alluvial-fans, bogs/fens, brackish-marsh, freshwater-marsh.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is **none**.
Dodecahema leptoceras	slender-horned spineflower	Endangered	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	This species is found locally within the Santa Ana River in areas that are highly suitable for this species. The nearest location is approx.. 2.5 miles to the east of the Specific Plan area. Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is **low**.
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	Endangered	Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.	This species is found on the east ¼ of the Airport and to the south within the Santa Ana River in areas that are highly suitable for this species. A small ¼ acre sized vacant area located north of 5th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support this species. The remainder of the Specific Plan area has no suitable habitat for this species. This species was not found during survey The potential for this species to occur is **low**.

The ground cover in the Plan Area generally consists of compact graded dirt, old pavement, non-native grasses, ruderal herbs, and non-native and native trees.

Adjacent to the roadways and within all of the vacant parcels, habitat consist of dense ruderal vegetation dominated by numerous non-native plant species are also found throughout the project area including tumbleweed (*Amaranthus albus*), common ragweed (*Ambrosia artemisiifolia*), non-native grasses (*Bromus* sp.), short pod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), fountaingrass (*Pennisetum setaceum*), date palm (*Phoenix* sp.), castor bean (*Ricinus communis*), Russian thistle (*Salsola tragus*), Peruvian pepper tree (*Schinus molle*), tamarisk (*Tamarix ramosissima*), Mexican fan palm (*Washingtonia robusta*), and Eucalyptus trees as well as numerous ornamental trees and shrubs. Native species include California buckwheat (*Erioginum faciculatum*) which is found at the far east of the Specific Plan area in isolated patches adjacent to the west levee of City Creek and within the City Creek Bypass Channel between City Creek downstream to Church Street and sycamore trees (*Platanus occidentalis)* which occur sparsely scattered about the Specific Plan area.

5.2.2 Vegetation/Heritage Trees

According to the City of Highland Municipal Code (16.64.040) heritage tree preservation requires replacement at a 2:1 ratio of all mature trees (those with 24-inch diameters or greater measured 4½ feet above the ground) that are removed by permit. The requirements for a permit states:

1. *No person, firm, or corporation shall remove, relocate or destroy any heritage tree within the city limits, including an applicant for a building permit, without first obtaining a tree removal permit from the community development director.*
2. *No tree removal permit shall be issued for the removal of any heritage tree on any lot associated with a proposal for development, unless all discretionary approvals have been obtained from the city.*
3. *No tree designated as an historic landmark shall be altered, removed, relocated or destroyed by any person, firm or corporation without first obtaining a landmark alteration permit and tree removal permit.*

There are trees scattered throughout the City of Highland portion of the Specific Plan area that meet the size requirements to be considered a heritage tree.

5.2.3 Sensitive Plants

None of the sensitive plant species documented within the *Redlands* quadrangle have anything greater than a low potential to occur within and/or adjacent to the Plan Area because the required habitat types are absent including RAFSS, chaparral, riparian and/or brackish wetlands. The City Creek Bypass Channel does not have the hydrological regime and broad flood plain associated with the sensitive plants known locally.

Sensitive plants identified by literature review to occur within the *Redlands* quadrangle included marsh sandwort, Nevin's barberry, salt marsh bird's-beak, slender-horned spineflower or Santa Ana River woollystar. None of these species were observed during the general floristic survey conducted by the survey team. No suitable environment for these species occurs within the Specific Plan area and the local RAFSS or riparian habitats are outside of the Specific Plan area envelope. No further investigations relative to these species are warranted or required.

5.2.4 General Wildlife

Birds were the most observed wildlife group during survey. Common wildlife species observed or otherwise detected on or in the vicinity of the site during the reconnaissance-level survey included mallard (*Anas platyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*), bushtit (*Psaltriparus minimus*).

Wildlife detections or signs included those for amphibians, reptiles, birds, and mammals. The most common wildlife observed included coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Great Basin fence lizard (*Sceloporus occidentalis longipes*) and side-blotched lizard (*Uta stansburiana elegans*)..

5.2.5 Sensitive Wildlife

According to the CNDDB, USFWS species occurrence data overlay, and other relevant literature and databases, four State and/or federally-listed threatened or endangered wildlife species are documented within three miles of the Specific Plan area. Additionally, there are several other sensitive wildlife species that are documented to occur within the vicinity of the Specific Plan area. An analysis of the likelihood for occurrence of all sensitive wildlife species is provided in Table 3. This analysis takes into account species range as well as documentation within the vicinity of the project area. The five State and/or federally-listed threatened or endangered wildlife species documented within the proposed maintenance project area are described below, as well as the burrowing owl (*Athene cunicularia*), considered a SSC by the CDFW.

San Bernardino kangaroo rat

The San Bernardino kangaroo rat (SBKR) is one of several kangaroo rat species in its range. The Dulzura (*Dipodomys simulans*), the Pacific kangaroo rat (*D. agilis*) and the Stephens kangaroo rat (*D. stephensi*) occur in areas occupied by the SBKR, but these other species have a wider habitat range. The habitat of the SBKR is described as being confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs. The SBKR is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage.

No aspect of the Specific Plan area supports habitat suitable for SBKR for the following reasons:

- The Specific Plan area is NOT located within proximity of where SBKR have been found in the last 10 years;
- The surrounding area does NOT consist of alluvial sage scrub and associated vegetation, such as RAFSS with a moderately open canopy, the California buckwheat scrub is a monotypical habitat;
- A river and floodplain bench/terrace subject to dynamic geomorphological and hydrological processes typical of fluvial systems does NOT occur in the Specific Plan area and;
- Upland areas proximal to the floodplains with suitable habitat does NOT occur nearby

Further, permitted biologist Mikael Romich (USFWS 10(A)1(a) permit # TE-068799-5) conducted a presence/absence survey for SBKR in the City Creek Bypass Channel between October 15 and 20, 2018. Results of that survey were negative for SBKR. A total of two deer mouse (*Peromyscus maniculatus*) individuals and one house mouse (*Mus musculus*) were trapped. The lack of SBKR presence during the

2018 trapping effort was not surprising because the habitat conditions within the City Creek Bypass Channel are not what typify SBKR occupation and/or utilization. Alluvial sage scrub and associated vegetation, such as coastal sage scrub and chamise chaparral, with a moderately open canopy is absent from the channel and the channel morphology lacks any benches, terraces or a braids. The City Creek Bypass channel is not subject to a dynamic geomorphological and hydrological processes typical of fluvial systems and the adjacent upland areas proximal to City Creek Bypass do not contain habitat suitable for SBKR.

Ms. Lawrey is a permitted biologist to trap and handle SBKR (USFWS 10(A)1(a) permit # TE-094308-4) surveyed the Specific Plan area and found the overall habitat conditions unsuitable for SBKR with the exception of a small, approximately one-quarter acre sized, vacant area with remnant coastal sage scrub elements, such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek. This habitat patch is potentially suitable to support SBKR. Aside from this small area, the Specific Plan area is separated from known populations of SBKR by active Airport operations, high volume roadways, and industrial and commercial uses. Although the potential for this species to occur is low, the small habitat patch should be investigated prior to development on it.

Riparian birds

A variety of sensitive, riparian obligate birds such as the least bell's vireo (LBVI), southwestern willow flycatcher (SWWF) and yellow-billed cuckoo (YBCU) have nesting habitats consisting of a well-developed overstory, understory, and low densities of aquatic and herbaceous cover. The understory frequently contains dense sub-shrub or shrub thickets. These thickets are often dominated by plants such as narrow-leaf willow, mulefat, young individuals of other willow species such as arroyo willow or black willow, and one or more herbaceous species. This type of habitat is absent from the Specific Plan area. Further investigation related to LBVI, SWWF and YBCU is not warranted or recommended for this project.

California gnatcatcher

The California gnatcatcher (CAGN) is a resident (non-migratory) small songbird which typically nests and forages in coastal sage scrub vegetation in southern California year-round. CAGN occur in dynamic and successional sage scrub habitats and non-sage scrub habitats such as chaparral, grassland, riparian areas, in proximity to sage scrub habitats. The CAGN was federally listed as Threatened in 1993 and critical habitat for this species was designated by the USFWS in 2000 and revised in 2007. The PCEs identified by the USFWS for CAGN consist of the following: (1) Dynamic and successional sage scrub habitats: Venturan coastal sage scrub, San Diegan coastal sage scrub, Riversidean sage scrub, maritime succulent scrub, RAFSS, southern coastal bluff scrub, and coastal sage-chaparral scrub in Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and (2) Non-sage scrub habitats such as chaparral, grassland, riparian areas, in proximity to sage scrub habitats as described for PCE 1 above that provide space for dispersal, foraging, and nesting.

Ms. Lawrey biologist familiar with CAGN surveyed the Specific Plan area and found the overall habitat conditions unsuitable for CAGN with the exception of a small, approximately one acre sized, vacant area with remnant coastal sage scrub elements, such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek. This habitat patch is only marginal for CAGN but is potentially suitable to support for them. Aside from this small area, the Specific Plan area is separated from suitable habitat for CAGN by active Airport operations, high volume roadways, and industrial and commercial uses. Although the potential for this species to occur is low, the small habitat patch should be investigated prior to development on it.

western Burrowing Owl

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711) provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA prohibits take of nearly all native birds. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW administers the MBTA.

Although not a federally listed species, the BUOW is protected under the MBTA and is listed as a Migratory Birds of Conservation Concern (BCC) by the USFWS and is therefore, also recognized by the CNDBB. The western Burrowing Owl (*A.c. hypugaea*) is one of 18 New World Burrowing Owl subspecies, and one of only two in North America. The western BUOW ranges from Texas to California and north to southern Canada. Individuals of resident populations in southern California, northern Mexico, and Florida breed and overwinter in an area without a significant migration (Haug et al. 1993). BUOW are found across American open landscapes, showing activity chiefly in the daytime. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils. In addition, BUOW may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures, and flood control facilities if the surrounding vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.

Unique among North American raptors, the BUOW requires underground burrows or other cavities for nesting during the breeding season and for roosting and cover, year-round. Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by BUOW but they may use dens or holes dug by other fossorial species and/or human made structures such as cement culverts and pipes.

BUOW have a high fidelity to their birth territory and they often prefer nesting in areas of high burrow densities. Breeding pairs are easily located within the surrounding of their nests (usually 90 feet) due to their territorial behavior. They are active during the day and night and are generally observed in the early morning hours or at twilight. BUOW breeding season begins February 1 and extends to August 31. Pair formation can begin in February. Peak of the BUOW breeding season, commonly accepted in California, occurs between April 15 and July 15. April to mid-May is when most burrowing owls are in the egg laying and incubation stages. BUOW egg incubation period is about 27-28 days Chick rearing typically occurs between May 15 and July 1. July 15 is typically considered the late nestling period when most owls are spending time above ground. The non-breeding season (September 1 to January 31). BUOW are semi-colonial and will sometimes share a burrow for incubation and chick rearing.

Following the survey protocol for BUOW within burrowing owl breeding season, no BUOW individuals or sign (burrows, surrogate burrows, feathers, whitewash, castings, prey remains, etc.) were observed within the City Creek Bypass Channel, vacant parcels or adjacent to the roads associated with the Specific Plan area therefore, BUOW is currently absent.

The habitat within the City Creek Bypass Channel and within the vacant parcels throughout the Specific Plan area remain potentially suitable for this species because of the presence of surrogate ground squirrel burrows, culvert pipes and short grasses part of the year.. Future investigation as the Specific Plan area is developed are warranted for BUOW.

5.2.6 Wildlife Corridors

The Specific Plan area is not considered an established wildlife movement corridor or nursery site for native or migratory wildlife, because the area does not connect two or more significant habitat areas and the area is not a major feature influencing the local plant and small mammal communities. The AGSP will not create any shift in habitat use by wildlife, alter population dynamics, or change the local species compositions. Therefore, this project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species through the Specific Plan area.

5.2.7 Jurisdictional waters

The area surrounding the City Creek Bypass is primarily urbanized and is in a heavily disturbed condition. The channel bottom is primarily sandy and is periodically maintained; it is also primarily unvegetated and the sparse vegetation that does occur is non-native dominated by scattered tumbleweed (*Amaranthus albus*), common ragweed (*Ambrosia artemisiifolia*), non-native grasses (*Bromus* sp.), short pod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), Russian thistle (*Salsola tragus*), and Mexican fan palm (*Washingtonia robusta*).

No wetland or riparian habitat characteristics are present. Therefore, modifications to the channel will not impact a state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal areas) as they do not exist within the Specific Plan area. This channel is considered a non-wetland jurisdictional water subject to the federal CWA regulated by the USACE and RWQCB respectively and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW. It originates at City Creek and terminates at the Warm Creek/Twin Creek confluence which is tributary to the Santa Ana River which is then tributary to the Pacific Ocean. Improvements to this channel will require permits from these agencies.

6 CONCLUSIONS

No federally listed species, or other sensitive species were observed during the field survey nor are any expected to occur. Two federally listed species are documented on the Airport property. One is the endangered SBKR which has been found along the southwesten border of the Airport, and the other is the threatened Santa Ana River woolystar which is found in the eastern 1/10th of the Airport AOA. A Conservation Management Plan (CMP) governs these portions of the Airport property where SBKR and woollystar are known to occur. Both species are associated with habitat strictly associated with the Santa Ana River and floodplain and are not found in the Specific Plan area due to the composition of incompatible habitat and plant composition, weed management regimes and current uses.. The occupied habitat on the Airport property is separated from the Specific Plan area by the existing AOA. No impacts will occur to any listed species as a result of this project.

Overall, the habitat conditions within the Specific Plan area are not suitable for any sensitive species found locally, particularly woollystar, spineflower, riparian birds, CAGN, and/ or SBKR. The vegetation is non-native and is far more dense than what these species prefer or require. Further, weed abatement occurs frequently on the vacant parcels by way of disking and within City Creek Bypass Channel by way of herbicide and mechanical treatments. Domestic dogs and cats were seen throughout the survey area of the Specific Plan area as well as raptors - all of which are predators of BUOW and SBKR. This is all with the exception of the ¼ acre parcel located at the east end of the Specific Plan area that is vacant consisting of California buckwheat alliance.

As far as BUOW, the habitat within the vacant parcels and the City Creek Bypass Channel is considered potentially suitable for burrowing owl. Per the definition provided in the 1993 and *2012 CDFG Staff Report on Burrowing Owl Mitigation*, "Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey." Although, there was no evidence indicating BUOW historical use or current occupation with no BUOW individuals or sign of BUOW, including feathers, casting, prey remains or whitewash being observed during the protocol survey, future surveys for BUOW would be recommended as development occurs. Therefore, the following is recommended to minimize and avoid potential impacts to BUOW:

- A Pre-construction Burrowing Owl Survey shall be conducted by a qualified biologist at least 14 days prior to any Project activities, at any time of year. Surveys shall be completed following the recommendations and guidelines provided within the *Staff Report on Burrowing Owl Mitigation* (CDFG, March 2012) or most recent version by a qualified biologist. If an active burrowing owl burrow is detected within any Project disturbance area, or within a 500-foot buffer of the disturbance area, a 300- foot radius buffer zone surrounding the burrow shall be flagged, and no impacts to soils or vegetation or noise levels above 65 dBA shall be permitted while the burrow remains active or occupied. Disturbance-free buffers may be modified based on site-specific conditions in consultation with CDFW. The qualified biologist shall monitor active burrows daily and will increase buffer sizes as needed if owls show signs of disturbance. If active burrowing owl burrows are located within any work area and impact cannot be avoided, a qualified biologist shall submit a burrowing owl exclusion plan to CDFW for review and approval. The burrowing owl exclusion plan shall include permanent compensatory mitigation consistent with the recommendations in the *Staff Report on Burrowing Owl Mitigation* such that the habitat acreage, number of burrows and burrowing owls impacted are replaced. Passive relocation shall take place outside the nesting season (1 February to 31 August).

There is habitat for nesting birds and foraging raptors in the ornamental trees, California pepper trees and *Eucalyptus* trees found in the Specific Plan area. Therefore, to reduce potential impacts to nesting birds and foraging raptors at the time of development, the following recommendation is made:

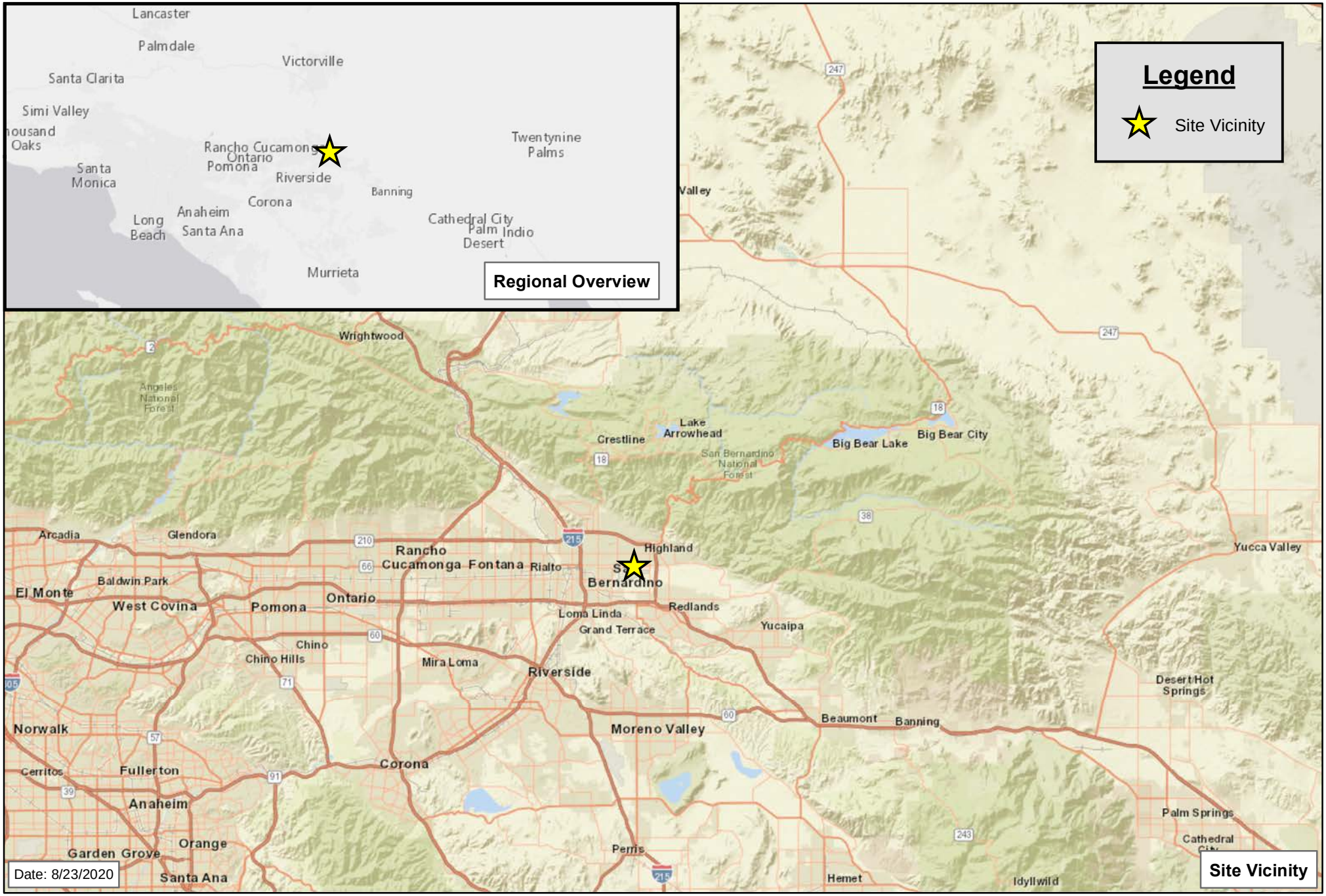
- Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

The City Creek Bypass Channel is located along 3rd and 5th Streets and extends from Warm Creek Channel on the west (terminus) and terminates at City Creek Channel just north of the State Route 30 (I-210) and 5th Street Interchange. Downstream of the Victoria Avenue-City Creek Bypass Channel is insufficient to convey the 100-year flood flows in its current configuration. Therefore, a new channel design (two alternatives) will need to be installed to have sufficient capacity to convey the 100-year flood

flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. To date the alternative channel designs are preliminary and not ready for construction. Impacts to the City Creek Bypass Channel will require CWA 404/401 permits from the USACE and RWQCB respectively; and a Section 1602 of the California Fish and Game Code (FCG) Streambed Alteration Agreement from the CDFW.

Preconstruction surveys for SBKR by a permitted biologist and a habitat suitability assessment for CAGN by a permitted biologist in the ¼ acre parcel are recommended to ensure no impacts to these species will result.

FIGURES

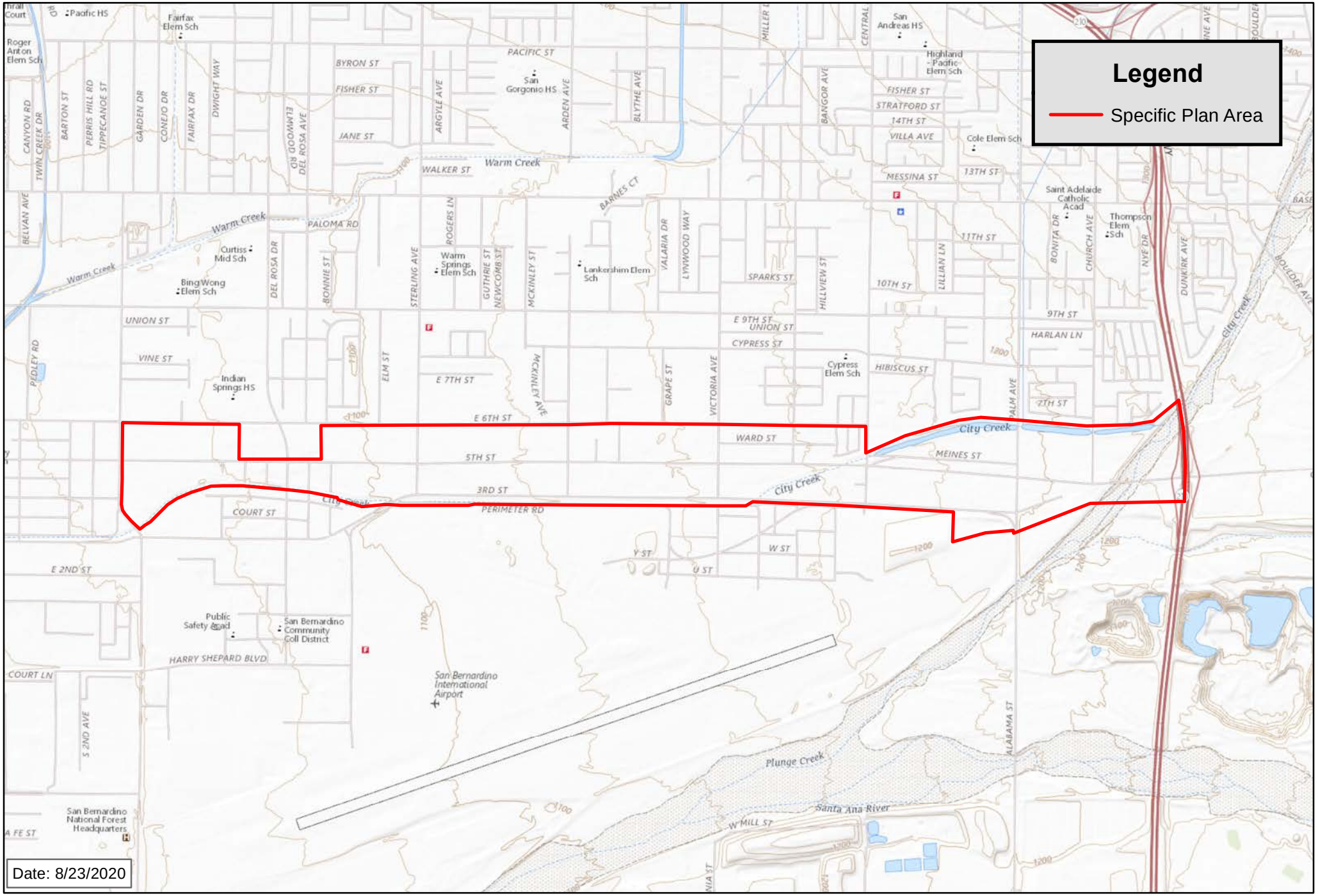


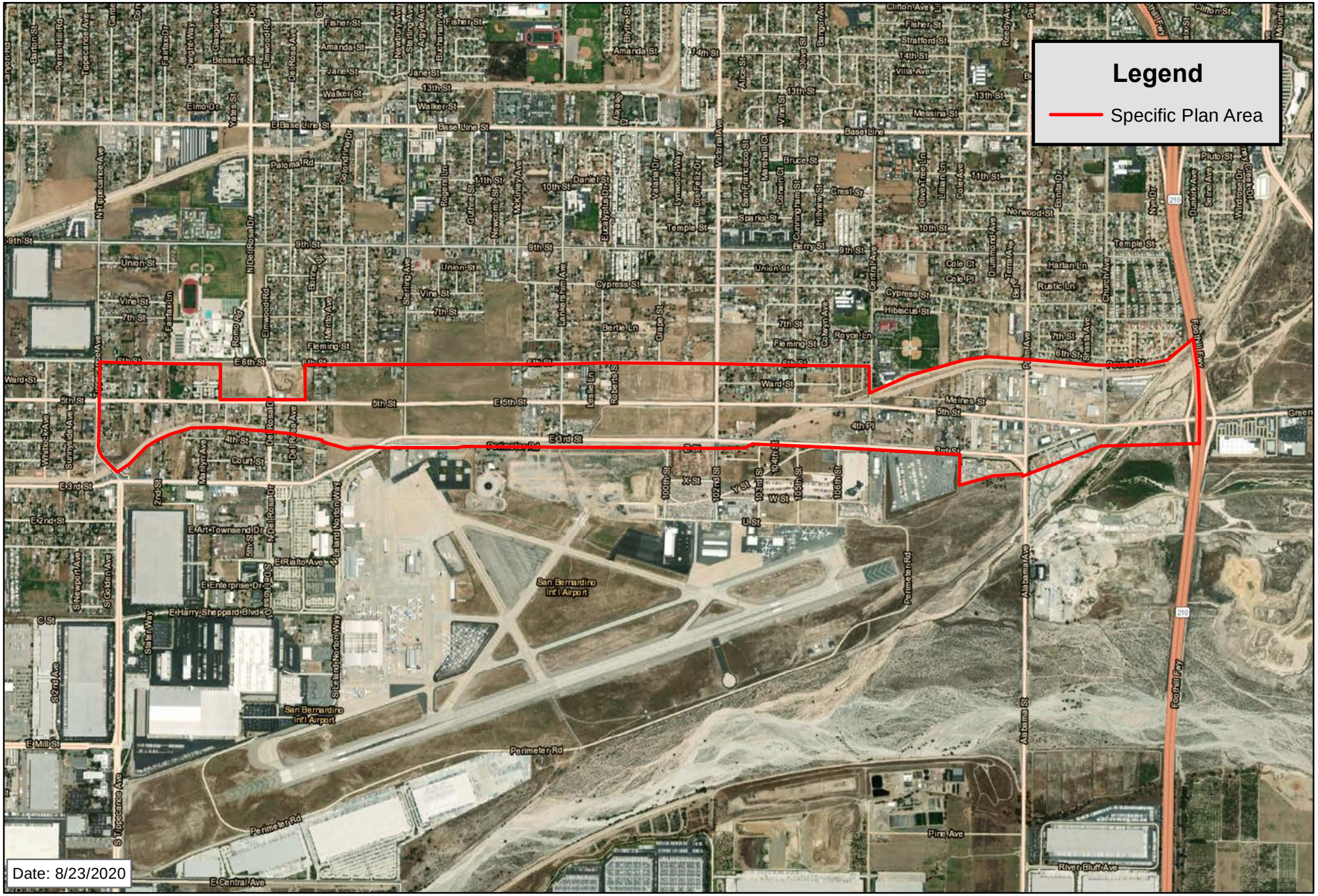
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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Progress & Preservation

Figure 1 - Regional Overview Site Vicinity

Airport Gateway Specific Plan


Legend
Specific Plan Area
Date: 8/23/2020
0 0.2 0.4 0.8 1.2 1.6 Miles
Imagery Date: 2/19/2019
Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset,
1 inch = 2,167 feet
Figure 2
Site Location
Airport Gateway
Specific Plan



Imagery Date: 2/19/2019

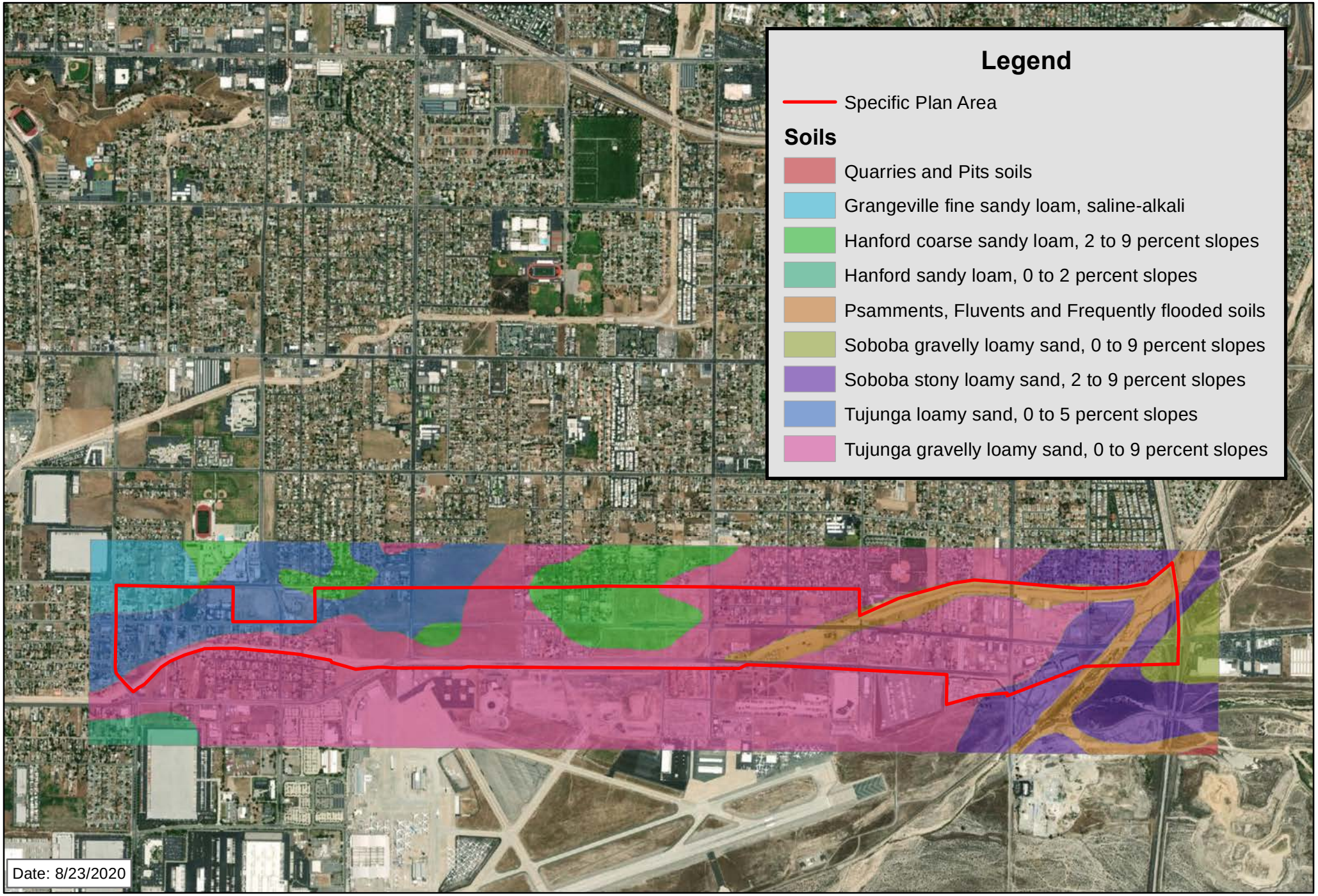
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

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1 inch = 2,094 feet

Figure 3
Site Location

Airport Gateway
Specific Plan



0 0.2 0.4 0.8 1.2 1.6 Miles

Imagery Date: 2/19/2019

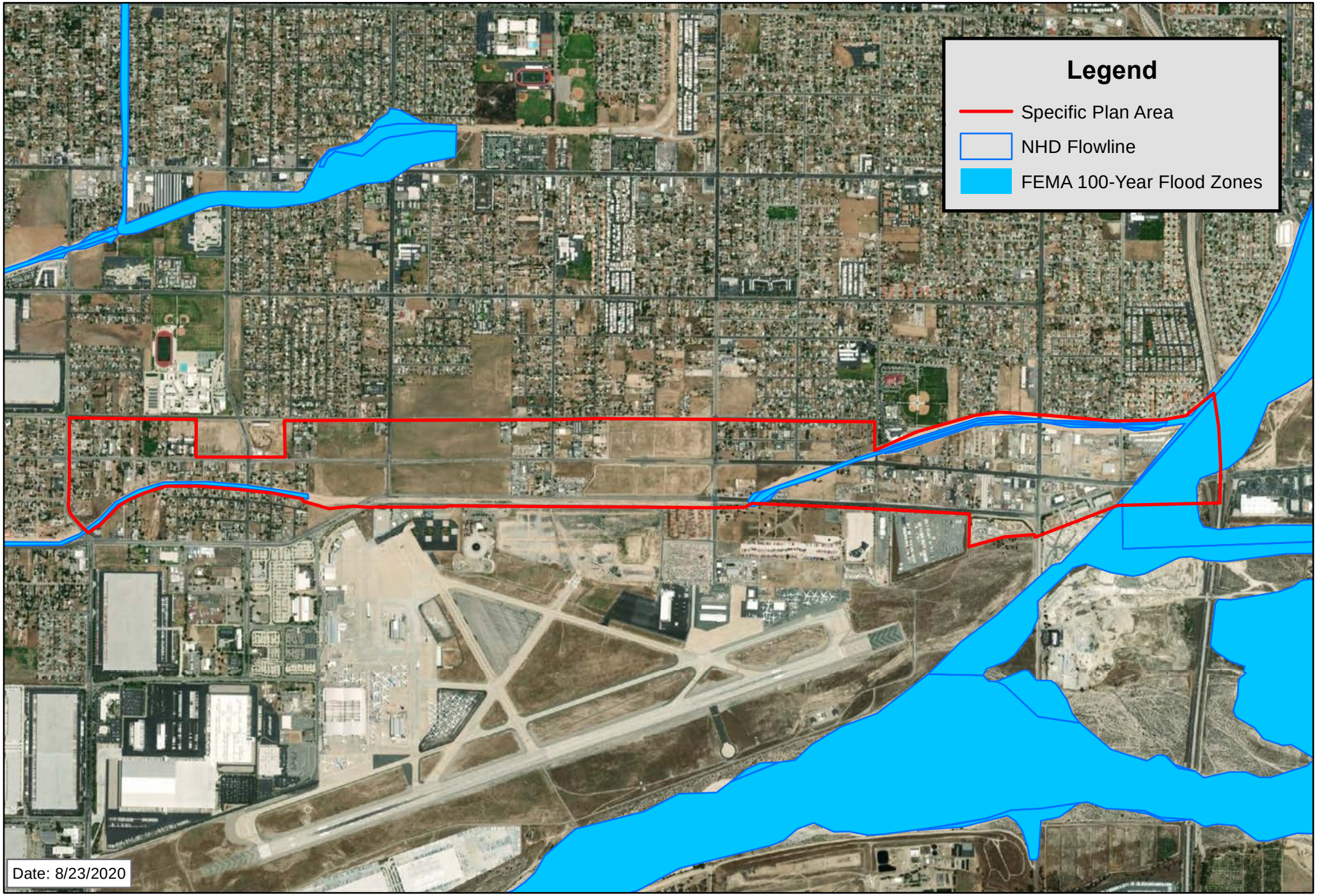
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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1 inch = 2,167 feet

Figure 4
Soils

Airport Gateway
Specific Plan



0 0.175 0.35 0.7 1.05 1.4 Miles

Imagery Date: 2/19/2019

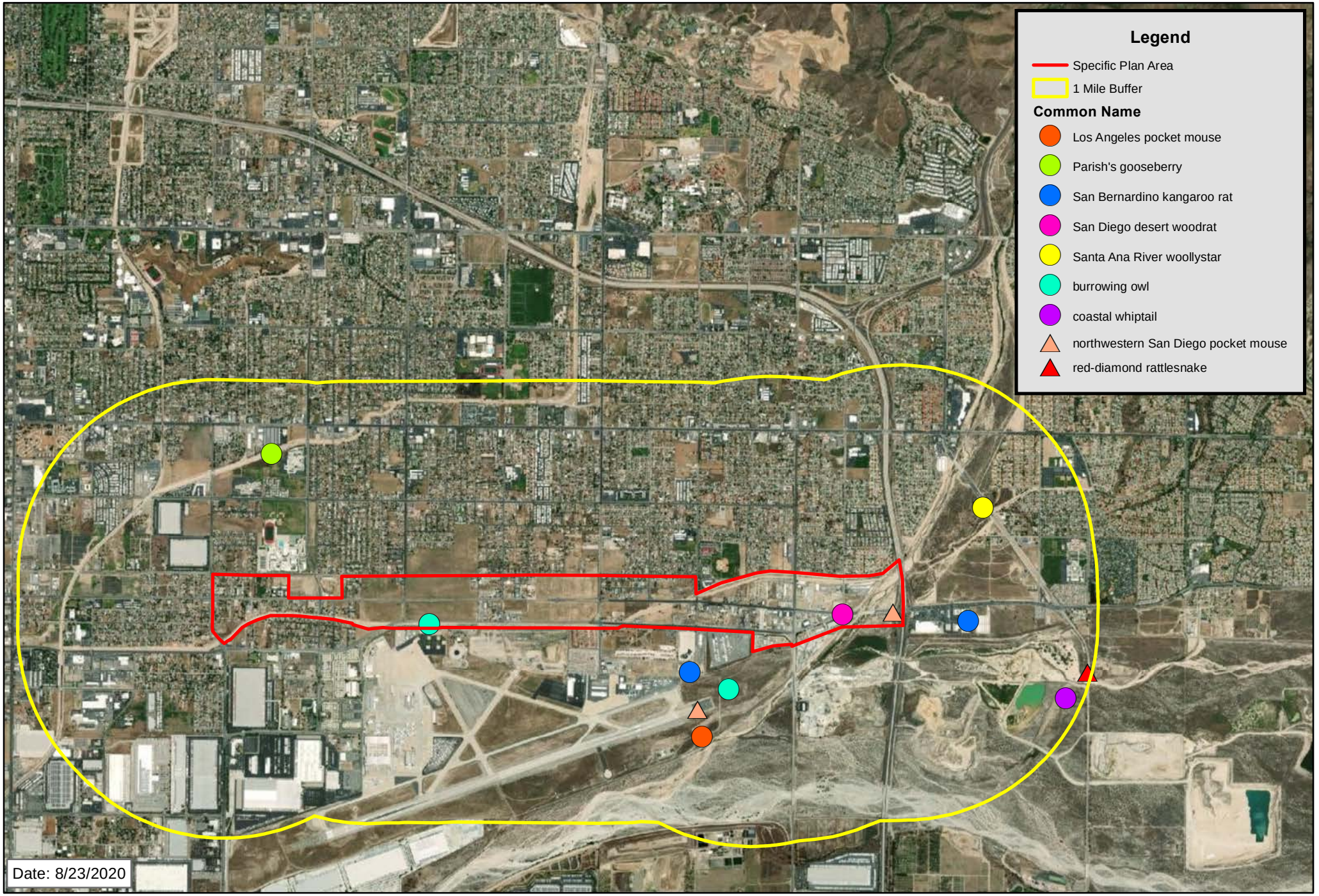
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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1 inch = 2,000 feet

Figure 5
FEMA/NHD

Airport Gateway
Specific Plan



0 0.3 0.6 1.2 1.8 2.4 Miles

Imagery Date: 2/19/2019

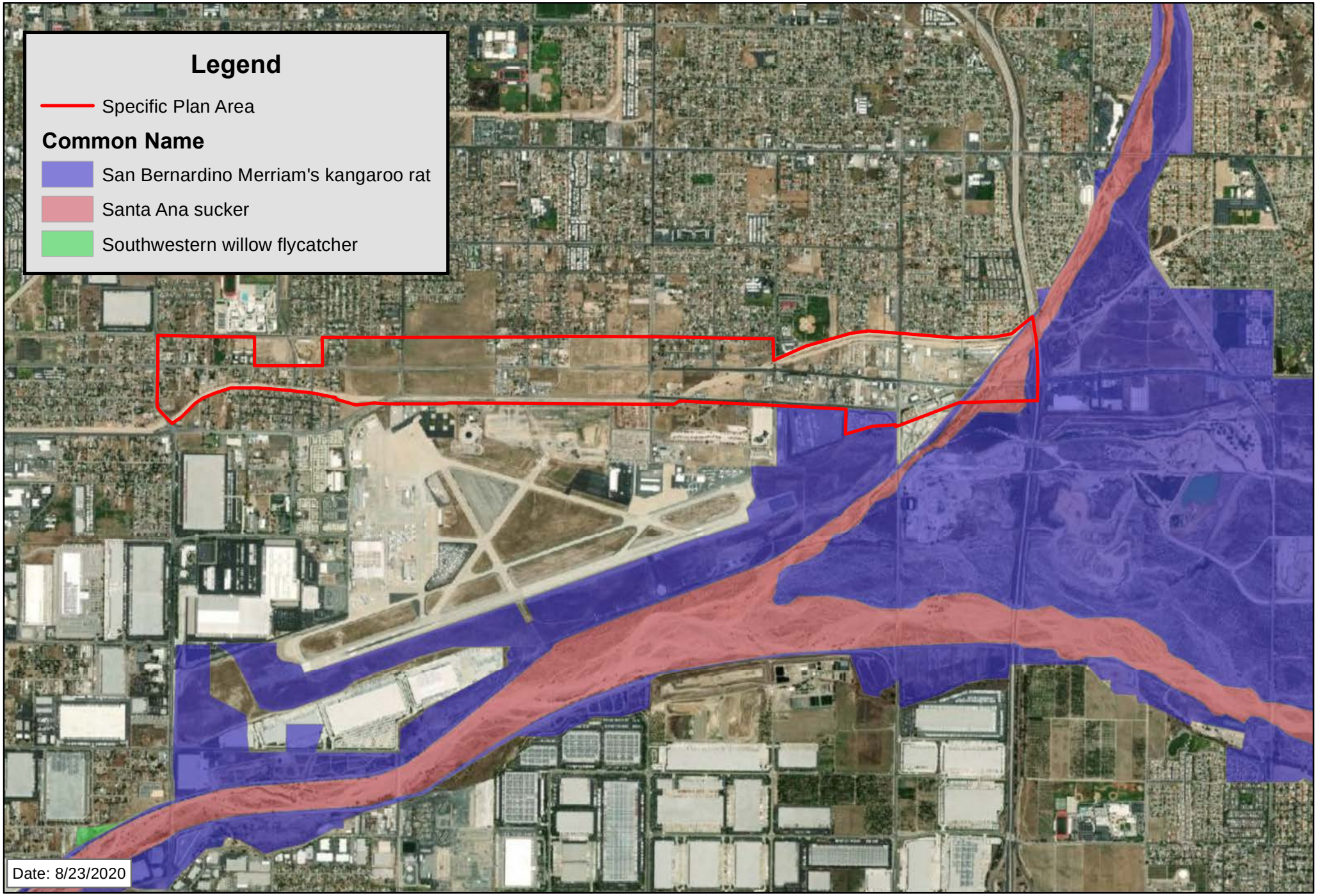
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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1 inch = 3,333 feet

Figure 6
CNDDB

Airport Gateway
Specific Plan



0 0.25 0.5 1 1.5 2 Miles

Imagery Date: 2/19/2019

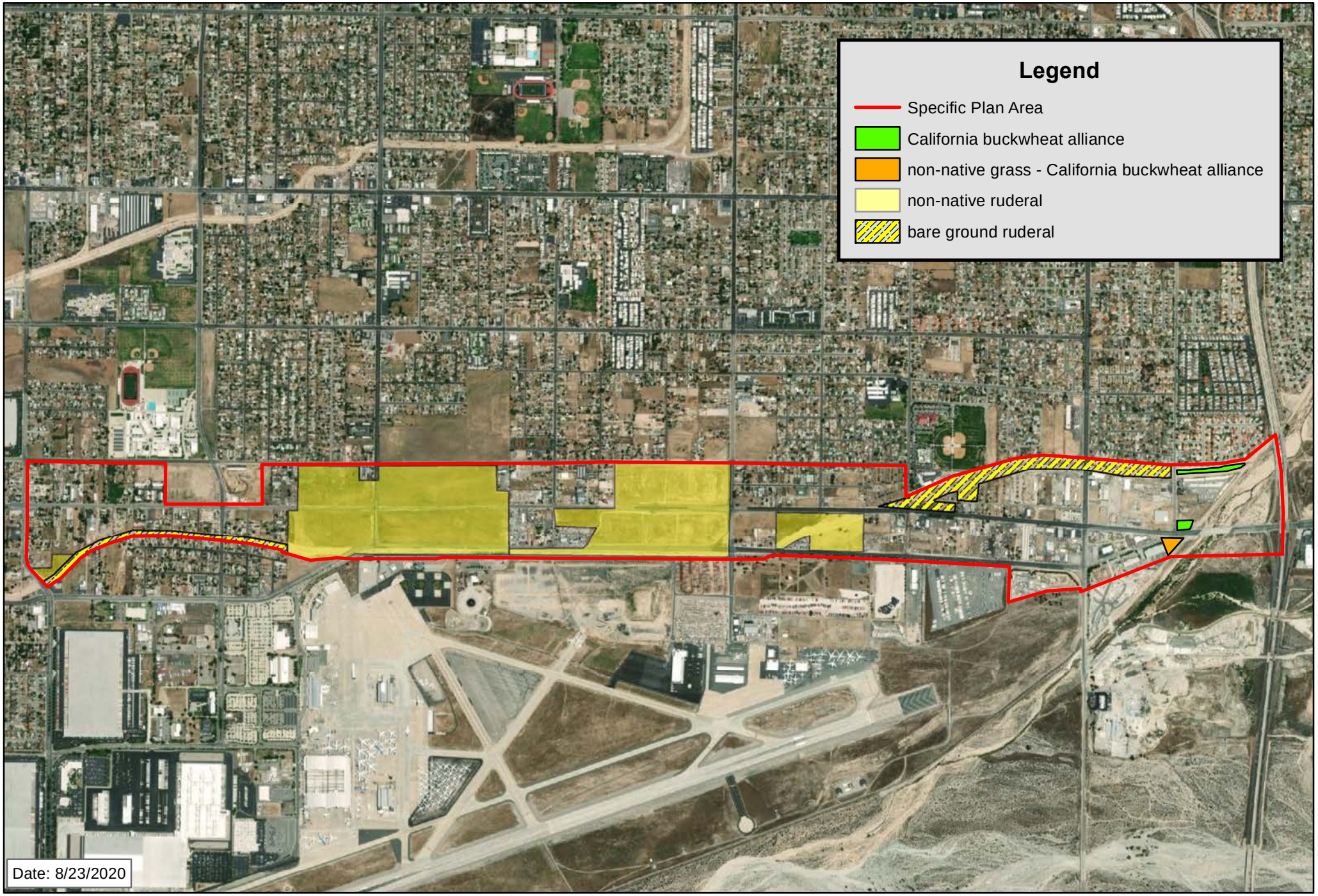
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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1 inch = 2,617 feet

Figure 7
Critical Habitat

Airport Gateway
Specific Plan



0 0.175 0.35 0.7 1.05 1.4 Miles

Imagery Date: 2/19/2019

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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1 inch = 1,833 feet

Figure 8
Vegetation

Airport Gateway
Specific Plan

APPENDIX A
Site Photos

	**Photo 1.** Facing north toward 5th Street at vacant field adjacent to the City Creek Bypass Channel. An example of the BUOW survey area.
	**Photo 2.** Looking at the City Creek Bypass Channel facing west along 3rd Street. An example of the BUOW survey area.

	**Photo 3.** Looking at the City Creek Bypass Channel facing east along 3rd Street. An example of the BUOW survey area.
	**Photo 4.** Looking at small vacant area with native buckwheat facing west along 5th street towards Central Avenue. City Creek and the 210 freeway located in opposite direction.

	**Photo 5.** Standing at Church Street looking at the City Creek Bypass Channel facing east toward the bypass origination point along the west levee of City Creek.
	**Photo 6.** Standing at 5th Street looking south at a vacant field an example of a BUOW survey area.

	**Photo 7.** Example photo representing the presence of scattered sycamore trees.

APPENDIX B
Sensitive Species Potential To Occur

CNDDB Sensitive Species Documented within the *Redlands* USGS 7.5 Minute Quadrangle

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
Accipiter cooperii	Cooper's hawk	None/None	G5, S4, CDFW-WL	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest. Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Suitable habitat does not occur on site. Potential to occur is **low**.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None/None	G5T3, S3, CDFW-WL	Chaparral, Coastal scrub. Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat does not occur on site. Potential to occur is **low**.
Anniella stebbinsi	southern California legless lizard	None/None	G3, S3, CDFW-SSC	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub. Generally, south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally, in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat does not occur on site. Potential to occur is **low**.
Antrozous pallidus	pallid bat	None/None	G5, S3, CDFW-SSC	Chaparral, Coastal scrub, Desert wash, Great Basin Grassland Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Suitable habitat does not occur on site. Potential to occur is **low**.
Arenaria paludicola	marsh sandwort	Endangered/Endangered	G1, S1, 1B.1, SB_SBBG-Santa Barbara Botanic Garden	Freshwater marsh, Marsh & swamp, Wetland. Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m.	Suitable habitat does not occur on site. Potential to occur is **none.**
Arizona elegans occidentalis	California glossy snake	None/None	G5T2, S2, CDFW-SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Suitable habitat does not occur on site. Potential to occur is **low**.
Aspidoscelis hyperythra	orange-throated whiptail	None/None	G5, S2S3, CDFW-WL	Chaparral, Cismontane woodland, Coastal scrub. Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	Suitable habitat does not occur on site. Potential to occur is **low**.

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
Aspidoscelis tigris stejnegeri	coastal whiptail	None/None	G5T5, S3, CDFW-SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Suitable habitat does not occur on site. Potential to occur is **low**.
Athene cunicularia	burrowing owl	None/None	G4, S3, CDFW-SSC	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran-desert scrub, Valley & foothill grassland. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Species not observed during protocol presence absence surveys. Potentially suitable habitat occurs on site. Preveiously documented in the City Creek Bypass Channel. Potential to occur is **moderate**
Berberis nevinii	Nevin's barberry	Endangered/Endangered	G1, S1, 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub. Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	Suitable habitat does not occur on site. Potential to occur is **none.**
Bombus crotchii	Crotch bumble bee	None/None	G3G4, S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Suitable habitat does not occur on site. Potential to occur is **low**.
Calochortus plummerae	Plummer's mariposa-lily	None/None	G4, S4, 4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland. Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	Suitable habitat does not occur on site. Potential to occur is **none.**
Carolella busckana	Busck's gallmoth	None/None	G1G3, SH	Coastal dunes and Coastal scrub.	Suitable habitat does not occur on site. Potential to occur is **none.**
Centromadia pungens ssp. *laevis*	smooth tarplant	None/None	G3G4T2, S2, 1B.1	Alkali playa, Chenopod scrub Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland. Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	Suitable habitat does not occur on site. Potential to occur is **none.**
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/None	G5T3T4, S3S4, CDFW-SSC	Chaparral, Coastal scrub, Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat does not occur on site. Potential to occur is **low**.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	Endangered/Endangered	G4, T1, S1, 1B.2	Coastal dunes, Marsh & swamp, Salt marsh, Wetland. Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None/None	G3T2, S2, 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland. Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation	Suitable habitat does not occur on site. Potential to occur is **low**.

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
				types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened/Endangered	G5T2T3, S1	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Suitable habitat does not occur on site. Potential to occur is **none.**
Crotalus ruber	red-diamond rattlesnake	None/None	G4, S3, CDFW-SSC	Chaparral, Mojavean desert scrub, Sonoran-desert scrub. Chaparral, woodland, grassland, & desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Suitable habitat does not occur on site. Potential to occur is **low**.
Cuscuta obtusiflora var. *glandulosa*	Peruvian dodder	None/None	G5T4T5, SH, 2B.2,	Marsh & swamp, Wetland. Marshes and swamps (freshwater). Freshwater marsh. 15-280 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered/None	G5T1, S1, CDFW-SSC	Coastal scrub. Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Suitable habitat does not occur on site. Potential to occur is **low**.
Dipodomys stephensi	Stephens' kangaroo rat	Endangered/Threatened	G2, S2	Coastal scrub, Valley & foothill grassland. Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Suitable habitat does not occur on site. Potential to occur is **none. Outside of species range**
Dodecahema leptoceras	slender-horned spineflower	Endangered/Endangered	G1, S1, 1B.1	Chaparral, Cismontane woodland, Coastal scrub. Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered/Endangered	G5T2, S1	Riparian woodland. Riparian woodlands in Southern California.	Suitable habitat does not occur on site. Potential to occur is **none.**
Eremophila alpestris actia	California horned lark	None/None	G5T4Q, S4, CDFW-WL	Marine intertidal & splash zone communities, Meadow & seep. Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Suitable habitat does not occur on site. Potential to occur is **low**.
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	Endangered/Endangered	G4T1, S1, 1B.1	Chaparral, Coastal scrub. Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Eumops perotis californicus	western mastiff bat	None/None	G5T4, S3S4, CDFW-SSC	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland. Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat does not occur on site. Potential to occur is **low**.

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
Icteria virens	yellow-breasted chat	None/None	G5, S3, CDFW-SSC	Riparian forest, Riparian scrub, Riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft. of ground.	Suitable habitat does not occur on site. Potential to occur is **none.**
Imperata brevifolia	California satintail	None/None	G4, S3, 2B.1	Chaparral Coastal scrub, Meadow & seep, Mojavean desert scrub, Riparian scrub, Wetland Coastal scrub, chaparral, riparian scrub, Mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Lanius ludovicianus	loggerhead shrike	None/None	G4, S4, CDFW-SSC	Broadleaved upland forest, Desert wash, Joshua tree woodland, Mojavean desert scrub, Pinon & juniper woodlands, Riparian woodland, and Sonoran-desert scrub Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Suitable habitat does not occur on site. Potential to occur is **low**.
Lasiurus xanthinus	western yellow bat	None/None	G5, S3, CDFW-SSC	Desert wash. Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Suitable habitat does not occur on site. Potential to occur is **low**.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None	G5T3, S3, 4.3	Chaparral, Coastal scrub, Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Malacothamnus parishii	Parish's bush-mallow	None/None	GXQ, SX, 1A	Chaparral, Coastal scrub. Chaparral, coastal sage scrub. In a wash. 305-455 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Neotoma lepida intermedia	San Diego desert woodrat	None/None	G5T3T4, S3S4, CDFW-SSC	Coastal scrub. Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Suitable habitat does not occur on site. Potential to occur is **low**.
Nyctinomops femorosaccus	pocketed free-tailed bat	None/None	G4, S3, CDFW-SSC	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran-desert scrub. Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Suitable habitat does not occur on site. Potential to occur is **low**.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/None	G5T1T2, S1S2, CDFW-SSC	Coastal scrub. Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Suitable habitat does not occur on site. Potential to occur is **low**.
Phrynosoma blainvillii	coast horned lizard	None/None	G3G4, S3S4, CDFW-SSC	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland. Frequents a wide variety of habitats, most	Suitable habitat does not occur on site. Potential to occur is **low**.

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
				common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	
Polioptila californica californica	coastal California gnatcatcher	Threatened/None	G4G5T2Q, S2, CDFW-SSC	Coastal bluff scrub, Coastal scrub. Obligate, permanent resident of coastal sage scrub below 2500 ft. in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Suitable habitat does not occur on site. Potential to occur is **low**.
Rana muscosa	southern mountain yellow-legged frog	Endangered/Endangered	G1, S1, , CDFW-WL	Aquatic; Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014.Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	Suitable habitat does not occur on site. Potential to occur is **none.**
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	None/None	G5T1, S1, CDFW-SSC	Aquatic, South coast flowing waters. Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Suitable habitat does not occur on site. Potential to occur is **none.**
Ribes divaricatum var. *parishii*	Parish's gooseberry	None/None	G4TX, SX, 1A	Riparian woodland. Riparian woodland. Salix swales in riparian habitats. 65-300 m.	Suitable habitat does not occur on site. Potential to occur is **low**.
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	None/None	G1, S1.1	Coastal scrub	Suitable habitat does not occur on site. Potential to occur is **low**.
Setophaga petechia	yellow warbler	None/None	G5, S3S4, , CDFW-SSC	Riparian forest, Riparian scrub, Riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Suitable habitat does not occur on site. Potential to occur is **none.**
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	None/None	G4, S4	Riparian forest	**Absent**
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	None/None	G4, S4	Riparian woodland	**Absent**
Spea hammondii	western spadefoot	None/None	G3, S3, CDFW-SSC	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland. Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Suitable habitat does not occur on site. Potential to occur is **low**.

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
Taxidea taxus	American badger	None/None	G5, S3, , CDFW-SSC	Many habitat types. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat does not occur on site. Potential to occur is **low**.
Thamnophis hammondii	two-striped gartersnake	None/None	G4, S3S4, CDFW-SSC	Marsh & swamp, Riparian scrub, Riparian woodland, Wetland. Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft. elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Suitable habitat does not occur on site. Potential to occur is **low**.
Vireo bellii pusillus	least Bell's vireo	Endangered/Endangered	G5T2, S2	Riparian forest, Riparian scrub, Riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Suitable habitat does not occur on site. Potential to occur is **none.**

Coding and Terms

E = Endangered T = Threatened SSC = Species of Special Concern
R = Rare C = Candidate FP = Fully Protected

Federal Species of Concern: "taxa for which the U.S. Fish and Wildlife Service has information that indicates proposing to list the taxa as endangered or threatened is possibly appropriate, but for which substantial data on the biological vulnerability and threats are not currently known or on file to support the immediate preparation of rules." (Arnold). All of these species have a limited range. In fact, some species are limited to the San Bernardino Mountains area, however, they are locally common.

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: “It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird.”

State Plant Rankings:

S1 - less than 6 element occurrences, or less than 1,000 individuals, or less than 2,000 acres
S2 - 6 to 20 element occurrences, or between 1,000 and 3,000 individuals, or between 2,000 and 10,000 acres
S3 - 21 to 100 element occurrences, or between 3,000 and 10,000 individuals, or between 10,000 and 50,000 acres
S4 - No Threat Rank
S5 - No Threat Rank
SH - all sites in California are historical
.1 - very threatened
.2 - threatened
.3 - no current threats known

APPENDIX 3a

Cultural Reconnaissance (2017)

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

December 8, 2017

Tom Dodson, President
Tom Dodson and Associates
2150 North Arrowhead Avenue
San Bernardino, CA 92405

Re: Historical/Archaeological Resources Reconnaissance
Fifth and Third Street Corridor Specific Plan
Cities of San Bernardino and Highland, San Bernardino County, California
CRM TECH Contract No. 3176

Dear Mr. Dodson:

At your request, CRM TECH has completed a historical/archaeological resources reconnaissance for the Fifth and Third Street Corridor Specific Plan proposed by the Inland Valley Development Agency (IVDA). The specific plan covers approximately 675 acres of urban land in an area of mixed residential and commercial uses, which lies across the boundary between the Cities of San Bernardino and Highland, San Bernardino County, California (Figure 1). The planning area extends between Third Street and Sixth Street from Tippecanoe Avenue on the west to State Route 210 on the east, within Sections 4, 5, 8, and 9, T1S R3W, San Bernardino Baseline and Meridian, and a portion of the Rancho San Bernardino land grant (Figure 1).

The study is a part of the environmental review process for the Fifth and Third Street Corridor Specific Plan. As the lead agency for the specific plan, the IVDA required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to identify and inventory all potential "historical resources" or "tribal cultural resources," as defined by CEQA, that are located within the planning area for future statutory/regulatory compliance considerations. In order to accomplish this objective, CRM TECH conducted a historical/archaeological resources records search, pursued general historical background research, contacted Native American representatives, and carried out a systematic field survey. This letter presents a summary of the methods and results of these research procedures.

PREVIOUS CULTURAL RESOURCES STUDIES

On February 14, 2017, CRM TECH archaeologist Nina Gallardo, B.A., conducted the historical/archaeological resources records search at the South Central Coastal Information Center (SCCIC), California State University, Fullerton. During the records search, Gallardo examined maps and records on file at the SCCIC for previously identified cultural resources in or near the planning area and existing cultural resources reports pertaining to the vicinity. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

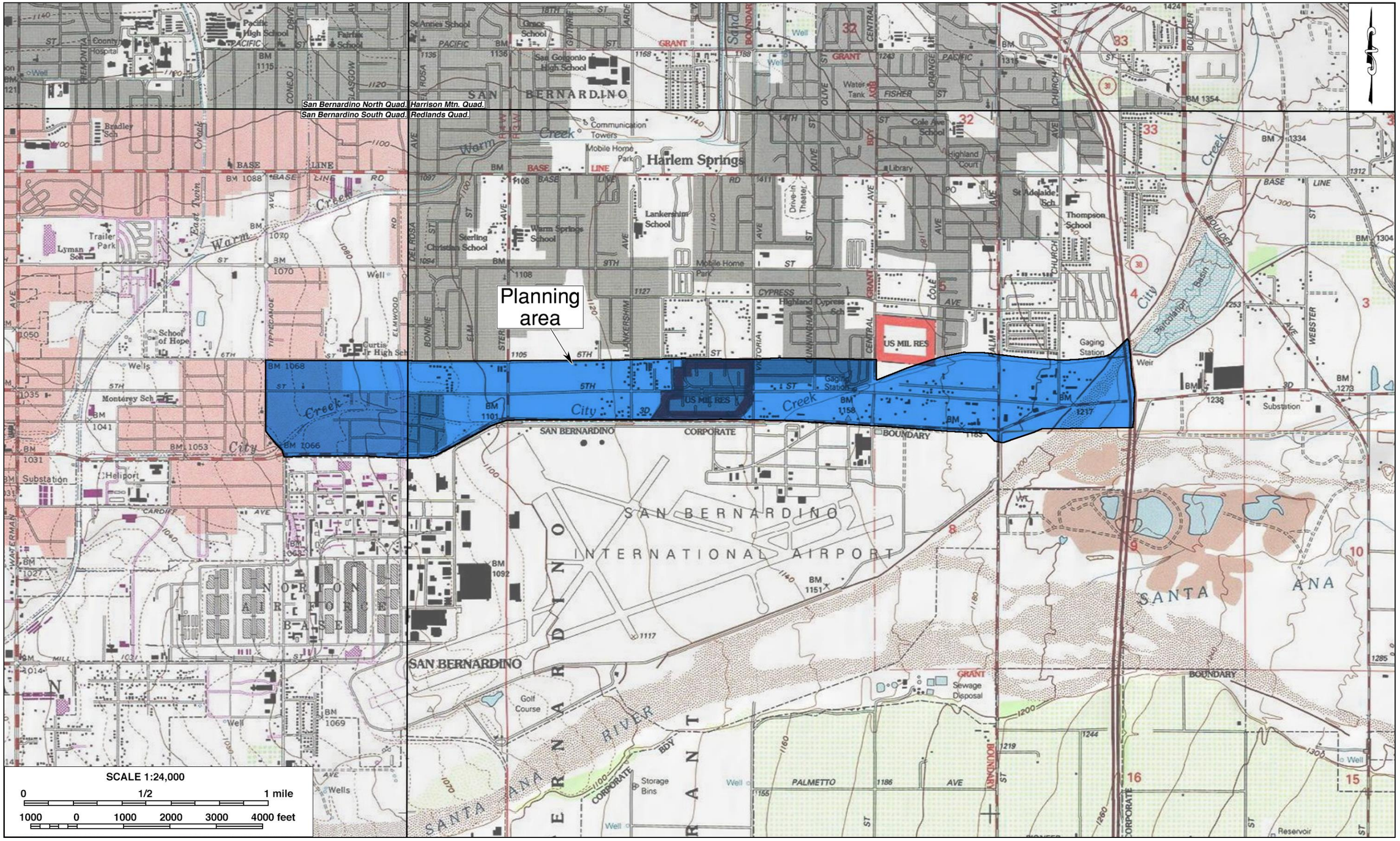


Figure 1. Project location. (Based on USGS Harrison Mountain, Redlands, San Bernardino North, and San Bernardino South, Calif., 1:24,000 quadrangles [USGS 1980; 1988; 1996a; 1996b])

According to SCCIC records, more than 30 previous cultural resource studies completed between 1973 and 2015 covered portions of the planning area, including significant stretches of Third, Fifth, and Sixth Streets, but the planning area as a whole had not been surveyed systematically prior to this study (Figure 2). As a result of the past studies, 103 cultural resources were previously identified as lying within, partially within, or adjacent to the boundaries of the planning area, including eight archaeological sites (Table 1) and 95 buildings or groups of buildings (Table 2).

Table 1. Previously Identified Archaeological Sites in the Planning Area

Site Number	Name
36-006848	Cram and Van Leuven Ditch
36-029563	Remains of mid-20th century irrigation system
36-010820	San Bernardino, Arrowhead and Waterman Railroad
P1074-97H	McKenzie Ditch
P1074-98H	Stewarts Ditch
P1074-99H	Whitlock Ditch
P1074-100H	Feudge Ditch
PSBR-27H	North Fork Ditch

As Table 1 shows, all eight of the known archaeological sites in the planning area dated to the historic period, and no prehistoric—i.e., Native American—sites have been identified within the planning area. One the sites, 36-010820, represents the former alignment of the San Bernardino, Arrowhead and Waterman Railroad, also known as the Harlem Motor Road or the Highlands Motor Line. Although originally recorded well outside the planning area, this rail line once traversed within the Sixth Street right-of-way along the northern project boundary (USGS 1901; 1943a; 1943b; NETR Online 1938). Constructed in 1888 as a narrow-gauge motor line from San Bernardino to Harlem Hot Springs, the San Bernardino, Arrowhead and Waterman Railroad operated for 20 years before being acquired by the Pacific Electric Railway Company and eventually dismantled sometime around the 1940s (Swett 1967:23; ERHA n.d.).

The other seven sites all consisted of irrigation features, and six of them represented the former courses of various ditches dating to the mid- or late-19th century. A closer examination of the existing records indicates that the delineation of these long-abandoned early ditches across the planning area was based solely on historical accounts, and no physical remains have been recorded of any of them within the planning area boundaries. A review of previous studies on irrigation works in the San Bernardino Valley indicates that one of them, the Cram and Van Leuven Ditch (36-006848), in fact terminated before reaching the planning area, where it merged into the North Fork Ditch (PSBR-27H; Scott 1977:14-15).

The only archaeological site that was actually observed in the planning area was 36-029563, which was recorded in 2015 as the remnants of a localized irrigation system, such as concrete junction boxes and a pump, that was installed sometime between 1943 and 1959 (Vader et al. 2015:2-3). The existing site record forms offer no evidence that the site was evaluated for historic significance at the time of recordation, and the cultural resources survey report cited in the site record (Ehringer et al. 2015) could not be located at the SCCIC despite diligent search efforts.

Of the 95 buildings or groups of building identified within, partially within, or adjacent to the planning area, all but two were recorded, or had their documentation updated, during two past studies completed by CRM TECH in 2011 and 2013, and all of them were determined not to meet the criteria for listing in the National Register of Historic Places or the California Register of

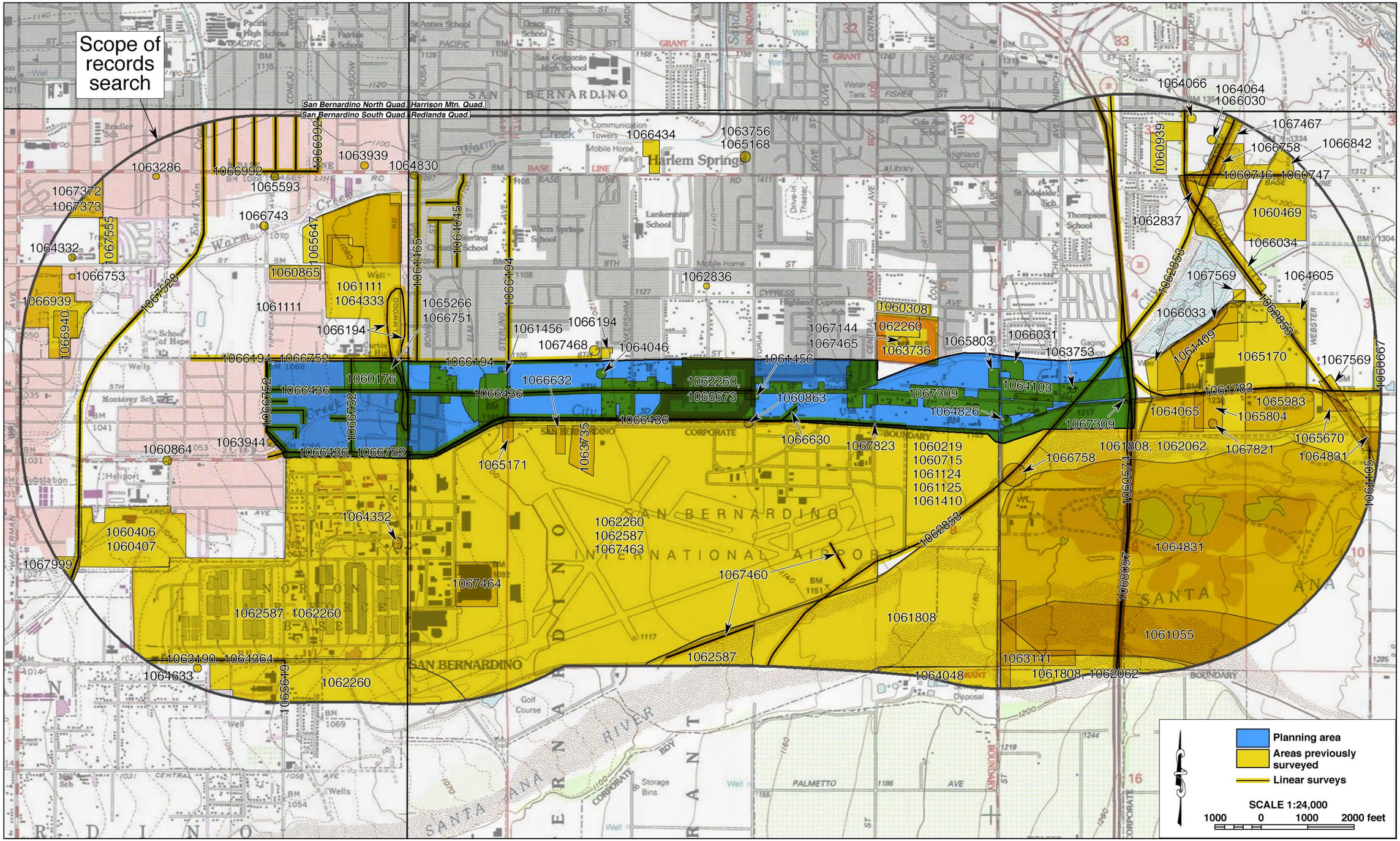


Figure 2. Previous cultural resources studies in the vicinity of the planning area, listed by SCCIC file number. (See Appendix 3 for locations of known archaeological sites)

Table 2. Previously Recorded Historic-Period Buildings in the Planning Area			
Site Number	**APN**	**Street Address**	**City**
36-013750	1192-621-22	27262 Meines Street	Highland
36-020001	0279-211-13	25502 5th Street	San Bernardino
36-025789	0279-181-05	8044 Del Rosa Drive	San Bernardino
36-025790	0279-182-11	8043 Del Rosa Drive	San Bernardino
36-025791	0279-182-12	8033 Del Rosa Drive	San Bernardino
36-025792	0279-184-02	25473 5th Street	San Bernardino
36-025793	0279-185-06	25364 4th Street	San Bernardino
36-025794	0279-191-05	25361 4th Street	San Bernardino
36-025795	0279-191-14	25360 Court Street	San Bernardino
36-025796	0279-191-17	25340 Court Street	San Bernardino
36-025797	1192-221-10	7982 Lankershim Avenue	Highland
36-025798	1192-241-07	26072 3rd Street	San Bernardino
36-025799	1192-241-09	316 Lankershim Avenue	San Bernardino
36-025800	1192-291-17	7987 Lankershim Avenue	Highland
36-025801	1192-291-18	2426 5th Street	Highland
36-025802	1192-291-31	26186 5th Street	Highland
36-025803	1192-531-02	26552 5th Street	Highland
36-025804	1192-531-04	26578 5th Street	Highland
36-025805	1192-531-06	26596 5th Street	Highland
36-025806	1192-531-32	7957 Victoria Avenue	Highland
36-025807	1192-531-33	7977 Victoria Avenue	Highland
36-025808	1192-611-11	27072 5th Street	Highland
36-025809	1192-611-12	27060 5th Street	Highland
36-025810	1192-621-16	27140 5th Street	Highland
36-025811	1192-621-17	27136 5th Street	Highland
36-025812	1192-621-18	27124 5th Street	Highland
36-025813	1192-621-19	27112 5th Street	Highland
36-025814	1192-631-13	27075 5th Street	Highland
36-025815	1192-641-02	8048 Palm Avenue	Highland
36-025816	1192-641-11	27111 5th Street	Highland
36-025817	1201-301-16	27356 5th Street	Highland
36-025818	1201-311-22	27409 5th Street	Highland
36-025819	1201-311-24	27381 5th Street	Highland
36-026641	0279-192-11	1690 3rd Street	Highland
36-026642	1192-241-03	2310 3rd Street	San Bernardino
36-026643	1192-241-05	2358 3rd Street	San Bernardino
36-026644	1192-241-03	2418 3rd Street	San Bernardino
36-026645	1192-311-03	2420-2422 3rd Street	San Bernardino
36-026646	1192-311-03	2424 3rd Street	San Bernardino
36-026647	0279-123-19	24936 3rd Street	San Bernardino
36-026648	0279-151-40	25046 3rd Street	San Bernardino
36-026649	0279-151-19	25064 3rd Street	San Bernardino
36-026650	0279-151-45	25088 3rd Street	San Bernardino
36-026651	0279-151-15	25096 3rd Street	San Bernardino
36-026652	0279-171-13	25190 3rd Street	San Bernardino
36-026653	0279-173-31	25214 3rd Street	San Bernardino

36-026654	0279-173-27	25222 3rd Street	San Bernardino
36-026655	0279-173-24	25248 3rd Street	San Bernardino
36-026656	0279-173-21	25280 3rd Street	San Bernardino
36-026657	0279-192-13	25376 3rd Street	San Bernardino
36-026658	0279-193-08	25444 3rd Street	San Bernardino
36-026659	1192-241-09	26086 3rd Street	San Bernardino
36-026660	0279-141-72	24901 5th Street	San Bernardino
36-026661	0279-131-22	24914 5th Street	San Bernardino
36-026662	0279-141-73	24927 5th Street	San Bernardino
36-026663	0279-131-21	24932 5th Street	San Bernardino
36-026664	0279-141-01	24939 5th Street	San Bernardino
36-026665	0279-131-20	24948 5th Street	Highland
36-026666	0279-141-03	24953 5th Street	Highland
36-026667	0279-131-36	24964 5th Street	San Bernardino
36-026668	0279-131-17	24974 5th Street	San Bernardino
36-026669	0279-141-05	24977 5th Street	San Bernardino
36-026670	0279-131-16	24982 5th Street	San Bernardino
36-026671	0279-131-15	24992 5th Street	San Bernardino
36-026672	0279-141-06	25003 5th Street	San Bernardino
36-026673	0279-151-27	25037 5th Street	San Bernardino
36-026674	0279-131-12	25038 5th Street	San Bernardino
36-026675	0279-141-07	25051 5th Street	San Bernardino
36-026676	0279-201-15	25084 5th Street	San Bernardino
36-026677	0279-151-44	25089 5th Street	San Bernardino
36-026678	0279-201-13	25112 5th Street	San Bernardino
36-026679	0279-151-38	25127 5th Street	Highland
36-026680	0279-201-12	25128 5th Street	San Bernardino
36-026681	0279-151-39	25141 5th Street	San Bernardino
36-026682	0279-201-11	25142 5th Street	Highland
36-026683	0279-161-02	25157 5th Street	San Bernardino
36-026684	0279-162-06	25233 5th Street	San Bernardino
36-026685	0279-163-03	25257 5th Street	San Bernardino
36-026686	1192-291-23	? 5th Street (at Roberts Street)	San Bernardino
36-026688	0279-141-72	8033 Tippecanoe Avenue	Highland
36-026689	0279-141-56	8035 Tippecanoe Avenue	Highland
36-026690	0279-141-46	8037 Tippecanoe Avenue	Highland
36-026693	0279-141-45	8055 Tippecanoe Avenue	Highland
36-026694	0279-141-44	8057 Tippecanoe Avenue	Highland
36-026695	0279-141-43	8069 Tippecanoe Avenue	Highland
36-026696	0279-141-70	8071 Tippecanoe Avenue	Highland
36-026697	0279-141-69	8079 Tippecanoe Avenue	Highland
36-026699	0279-141-32	8099 Tippecanoe Avenue	Highland
36-026700	0279-141-54	8107 Tippecanoe Avenue	Highland
36-026701	0279-141-19	8115 Tippecanoe Avenue	Highland
36-026704	0279-141-18	8125 Tippecanoe Avenue	Highland
36-026706	0279-141-17	8137 Tippecanoe Avenue	Highland
36-026708	0279-192-02	25347 Court Street	San Bernardino
36-026709	0279-151-42	25091 5th Street	San Bernardino
36-029562	0279-211-01	25457 6th Street	Highland

Historical Resources (Tang and Jacquemain 2011:7-8; 2013:14-15). Of the other two properties, 36-029562 represented a circa 1916 residence recorded in 2015, which was also found not to be eligible for the National Register or the California Register (McDonald and Anderson 2015:2). The other, 36-013750, was recorded in 2007 as a shed and a garage that survived from a former residential property of unknown age, but was not evaluated at the time (Alexandrowicz 2007a; 2007b:76).

Outside of the planning area but within a one-mile radius, SCCIC records show some 80 additional studies covering various tracts of land and linear features, many of the them on the former Norton Air Force Base, now the San Bernardino International Airport (Figure 2). As a result, 98 additional historical/archaeological sites, including 88 recorded sites and 10 pending sites, and four isolates—i.e., localities with fewer than three artifacts—were identified within the one-mile scope of the records search.

Among these 102 known cultural resources, only two sites and two isolates were of Native American origin. Both of the sites were recorded in the early 1960s as Native American habitation areas occupied in historic times. One of them, 36-002794, yielded buried mortars and metates during construction work, while the other, 36-002313, was simply described as being "completely gone" (Smith 1961; 1962). The two isolates were recorded as a painted sandstone concretion and a white chert flake.

The vast majority of the 102 cultural resources outside the planning area dated to the historic period, and included 74 buildings and structures, most of them located on the former Norton Air Force Base, along with additional irrigation features, roads, and scattered refuse items. None of these 102 cultural resources was found in the immediate vicinity of the planning area. Therefore, none of them requires further consideration in the proposed specific plan.

NATIVE AMERICAN INPUT

On February 9, 2017, CRM TECH submitted a written request to the State of California's Native American Heritage Commission for a records search in the commission's sacred lands file. In response, the commission reported that the records search identified no Native American cultural resources within the planning area but recommended that local Native American groups be contacted for further information. For that purpose, the commission provided a list of potential contacts in the region (Appendix 1).

Following the commission's recommendation, on February 23 CRM TECH sent written requests for comments to all five individuals on the referral list and the organizations they represent (Appendix 1). In addition, as previously directed by the Morongo Band of Mission Indians, Raymond Huaute, the tribe's Cultural Resources Specialist, was also contacted.

As of this time, only two of the tribal representatives have responded to the inquiry. Goldie Walker, Chairperson of the Serrano Nation of Indians, stated in a telephone conversation on March 8, 2017, that the general area is sensitive for Native American cultural resources. She requested that a monitor from the Serrano Nation be present during all ground-disturbances in the planning area, notification of any archaeological findings, and copies of all cultural resources documentation for tribal review.

On April 8, 2017, Joan Schneider, Consulting Archaeologist for the San Manuel Band of Mission Indians, replied by e-mail and identified the planning area as a part of the Serrano ancestral territory and an area that the tribe considers to be culturally sensitive. She requested additional information regarding the specific plan in order to facilitate further, government-to-government consultations, and that a standard Phase I cultural resources survey be completed on the entire planning area (Appendix 1).

POTENTIAL "HISTORICAL RESOURCES" IN THE PLANNING AREA

Prior to the field survey, historic maps dated 1858-1967 and aerial photographs taken in 1938-1968 were reviewed systematically to establish past land use and development patterns in the project vicinity, and to identify potential historic-period features within the planning area (GLO 1858; 1876; USGS 1901-1967; NETR Online 1938-1968). Buildings or structures that postdate 1968 are less than 50 years old at this time and generally do not meet the requirement for potential "historical resources" unless they demonstrate extraordinary merits in architecture, construction, or aesthetics. Therefore, they were excluded from further consideration in this study in the absence of such merits.

Based on these criteria, a total of 315 buildings or group of buildings in the planning area that have not been previously recorded or evaluated for CEQA-compliance purposes, most of them residential properties, are considered to be potential "historical resources." These properties, listed in Appendix 2, will require proper evaluation under CEQA provisions when involved in future projects, along with the property that was previously recorded as 36-013750 but not evaluated.

Using the list in Appendix 2 as a guide, on May 8 and 9, 2017, CRM TECH field director Daniel Ballester, M.S., and project archaeologist Nina Gallardo, B.A, carried out the field reconnaissance by driving along each street in the planning area and visually inspecting all built-environment features encountered. In addition, areas where archaeological resources were previously identified in the planning area were intuitively inspected on foot as warranted. The results of the survey efforts indicate that the planning area lies in a mixed-use area where the streets are lined with residential and commercial properties interspersed with stretches of vacant land. Most of the developed lots are 50-100 feet in width, but several exceed 300 feet in width. The larger parcels are sometimes occupied by several buildings of various vintage.

Two older single-family residential neighborhoods dating to the 1959-1968 era (NETR Online 1959; 1968) were found to be relatively intact, one occupying three blocks on either side of Del Rosa Drive between Third and Fifth Streets, and one located between Victoria and Central Avenues and between Fifth and Sixth Street. Of these, the former consists of some 120 residential properties while the latter comprises some 50-60.

The vast majority of the 315 properties listed in Appendix 2 evidently date to the post-WWII boom period of circa 1945 to the late 1960s, and their overall appearance is consistent to the prevailing architectural trend and building practices of the time, while three of the properties may predate WWII (NETR Online 1938-1968). Although these buildings appear to retain at least a minimally recognizable level of historical character, nearly all of them have been altered to varying degrees, with replacement windows, new sidings and roofs, and horizontal or vertical additions the most common modifications.

The ground surface in most of the planning area has been extensively disturbed by past development activities, most notably the construction of the buildings, roads, and other infrastructure features,

which significantly reduces the sensitivity of the planning area for archaeological resources from the prehistoric or early historic period. No physical remnants were observed of any of the six early ditches listed in Table 1, nor were any features or artifacts associated with Site 36-010820, the San Bernardino, Arrowhead and Waterman Railroad, found along its former alignment. At Site 36-029563, however, the fragmented irrigation features recorded in 2015 remain extant in a vacant field between Fifth Street and Sixth Street, to the east of Del Rosa Drive (Appendix 3).

CONCLUSION AND RECOMMENDATIONS

In summary, seven of the eight archaeological sites previously identified as lying within, partially within, or adjacent to the planning area (Table 1), representing six 19th century irrigation ditches and the San Bernardino, Arrowhead and Waterman Railroad, have evidently been obliterated by past development. However, in light of their potential local historic interest, it is recommended that, prior to the commencement of any proposed project in the immediate vicinity of any of these sites (Appendix 3), further historical research be completed to establish their precise locations in relation to the project area, and an intensive-level archaeological field survey and, if necessary, an extended Phase I survey be conducted in the vicinity to ascertain the presence or absence of any surface or subsurface remains that may be impacted by future development.

The last remaining known archaeological site in the planning area, 36-029563, consists of a group of abandoned irrigation features from the late historic period. Generally speaking, such minor, fragmented irrigation features of similar age, virtually ubiquitous on agricultural land or former agricultural land in southern California, are unlikely to qualify as "historical resources" under CEQA guidelines. Nevertheless, since SCCIC records contain no indication that it has been formally evaluated for statutory compliance purposes, Site 36-029563 will need to be considered a potential "historical resource" that requires proper evaluation unless the 2015 survey report cited in the existing site record (Ehringer et al. 2015) becomes available for review and proves to contain an adequate evaluation.

The results of the records search indicate that 95 buildings or groups of building were previously recorded within the planning area (Table 2), and 94 of them have been evaluated as not being eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. As such, these 94 properties do not meet CEQA's definition of "historical resources," leaving only one, 36-013750, consisting of a shed and a garage from a former residential property at 27262 Meines Street, to be evaluated under CEQA provisions in the future. However, the present study identified a total of 315 additional buildings or groups of buildings within the planning area that appear to be of historical origin but remain to be recorded and evaluated (Appendix 2).

Pursuant to CEQA guidelines, the 316 properties in the planning area with historic-period buildings that have not been evaluated should be treated as potential "historical resources" in the planning process, along with the irrigation features at Site 36-029563. If a proposed project will impact any of these properties, further study will be needed to determine whether the affected buildings or features meet the statutory definition as a "historical resource." If federal funding, permit, or license is required for the project, they will also need to be addressed as potential "historic properties" under Section 106 of the National Historic Preservation Act.

In general, CEQA guidelines require that the specific area designated for a proposed project be surveyed at an intensive level for both archaeological and built-environment features in a standard

Phase I study in order to ensure the proper identification of "historical resources" and "tribal cultural resources." A program-level study for a general plan or large-scale specific plan, such as this one, cannot be used as a substitute. For projects to be proposed under the Fifth and Third Street Corridor Specific Plan, CEQA's requirement for Phase I cultural resources surveys remains valid, since this study did not entail an intensive-level archaeological survey of the entire planning area, unless an adequate Phase I study was completed on the property within the past five years. Meanwhile, the approval of all future projects in the planning area should incorporate the standard condition that all buried cultural materials discovered during earth-moving operations be examined and evaluated by a qualified archaeologist before any further ground disturbances.

Thank you for this opportunity to be of service.

Sincerely,

Bai "Tom" Tang, Principal Investigator
CRM TECH

REFERENCES CITED

Alexandrowicz, John Stephen
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2007b An Historical Resources Identification Investigation of the Light Industrial Shop Building Project, 27262 Meines Street, City of Highland, San Bernardo County California. On file, South Central Coastal Information Center, California State University, Fullerton.

Ehringer, Candace, Katherine Anderson, Matthew Gonzalez, and Michael Vader
2015 East Valley Water District Del Rosa Recycled Water Center Project Phase I Cultural Resources Study. Prepared for the East Valley Water District, Highland, California, by Environmental Science Associates, Los Angeles.

ERHA (Electric Railway Historical Association of Southern California)
n.d. Pacific Electric: Highland Line. http://www.erha.org/peeh.htm.

GLO (General Land Office, U.S. Department of the Interior)
1858 Plat Map: Township No. 1 South Range No. 3 West, SBBM, surveyed in 1853-1857.
1876 Plat Map: Township No. 1 South Range No. 4 West, SBBM, surveyed in 1852-1875.

McDonald, Laura, and Kathy Anderson
2015 California Historical Resource Inventory record forms, 36-029562. On file, South Central Coastal Information Center, California State University, Fullerton.

NETR Online
1938-1968 Aerial photographs of the project vicinity, taken in 1938, 1959, 1966, and 1968. http://www.historicaerials.com.

Scott, M.B.
1977 Development of Water Facilities in the Santa Ana River Basin, California, 1810-1968. On file, South Central Coastal Information Center, California State University, Fullerton.

Smith, Gerald A.
1961 California Historical Resource Inventory record forms, 36-002794. On file, South Central Coastal Information Center, California State University, Fullerton.

1962 California Historical Resource Inventory record forms, 36-002313. On file, South Central Coastal Information Center, California State University, Fullerton.

Swett, Ira L.

1967 *Tractions of the Orange Empire*. Interurbans Special No. 41. *Interurbans* Magazine, Los Angeles.

Tang, Bai "Tom," and Terri Jacquemain

2011 Historical Resources Evaluation Report: Tiger II 5th Street Improvement Project, Cities of Highland and San Bernardino, San Bernardino County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

2013 Historical/Archaeological Resources Survey Report: Third and Fifth Street Improvement Project Phases 1, 2, and 3, in and near the Cities of San Bernardino and Highland, San Bernardino County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

USGS (United States Geological Survey, U.S. Department of the Interior)

1901a Map: Redlands, Calif. (15', 1:62,500); surveyed in 1898-1899.

1901b Map: San Bernardino, Calif. (15', 1:62,500); surveyed in 1893-1894.

1943a Map: Colton, Calif. (1:31,680); surveyed in 1936-1938.

1943b Map: Redlands and Vicinity, Calif. (1:31,680); surveyed in 1939.

1954a Map: Redlands, Calif. (15', 1:62,500); aerial photographs taken in 1952.

1954b Map: San Bernardino, Calif. (15', 1:62,500); aerial photos taken in 1952, field-checked in 1953-1954.

1967a Map: Redlands, Calif. (7.5', 1:24,000); aerial photos taken in 1966, field-checked in 1967.

1967b Map: San Bernardino South, Calif. (7.5', 1:24,000); aerial photos taken in 1966, field-checked in 1967.

1980 Map: San Bernardino South, Calif. (7.5', 1:24,000); 1967 edition photorevised in 1979.

1988 Map: Harrison Mtn., Calif. (7.5', 1:24,000); 1967 edition photorevised in 1985.

1996a Map: Redlands, Calif. (7.5', 1:24,000); 1967 edition photorevised in 1994.

1996b Map: San Bernardino North, Calif. (7.5', 1:24,000); 1967 edition photorevised in 1994.

Vader, M., L. MacDonald, and S. Pacheco

2015 California Historical Resource Information System site record, 36-029563. On file, South Central Coastal Information Center, California State University, Fullerton.

APPENDIX 1

CORRESPONDENCE WITH NATIVE AMERICAN REPRESENTATIVES*

* Six local Native American representatives were contacted; a sample letter is included.

SACRED LANDS FILE RECORDS SEARCH & NATIVE AMERICAN

CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916)373-3710
(916)373-5471 Fax
nahc@pacbell.net

Project: Inland Valley Development Agency's Specific Plan; Third to Sixth, Tippecanoe to I-210 (CRM TECH Contract No. 3176)

County: San Bernardino

USGS Quadrangle Name: Redlands and San Bernardino South, Calif.

Township 1 South **Range** 3 West SB **BM; Section(s)** 4, 5, 8, and 9

Township 1 South **Range** 3 & 4 West SB **BM; Section(s)** San Bernardino land grant

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The study addresses a proposed specific plan on 675 acres of land located between 3rd Street and 6th Street and east from Tippecanoe Avenue to the I-210 Freeway, in the Cities of San Bernardino and Highland, San Bernardino County, California.

February 7, 2017

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
Fax (916) 373-5471

February 9, 2017

Nina Gallardo
CRM Tech

Sent by Email: ngallardo@crmtech.us

RE: Proposed Inland Valley Development Agency's Specific Plan; Third to Sixth, Tippecanoe to I-215 Project, Cities of San Bernardino and Highland; San Bernardino County, California

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

Attached is a list of tribes culturally affiliated to the project area. I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
for Associate Governmental Program Analyst

Native American Heritage Commission
Tribal Contact List
San Bernardino County
2/8/2017

Morongo Band of Mission Indians
Denisa Torres, Cultural Resources Manager
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951)849-8807
Fax: (951)922-8146

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Serrano
Phone: (760)885-0955 — Tataviam
tsen2u@hotmail.com

San Manuel Band of Mission Indians
Lee Clauss, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

Serrano Nation of Mission Indians
Goldie Walker, Chairperson
P.O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909)528-9027

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Inland Valley Development Agency's Specific Plan Project, San Bernardino County.

February 23, 2017

Raymond Huaute, Cultural Resource Specialist
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

RE: Inland Valley Development Agency's Specific Plan
675 Acres in the Cities of Highland and San Bernardino
San Bernardino County, California
CRM TECH Contract #3176

Dear Mr. Huaute:

I am writing to bring your attention to an ongoing CEQA-compliance study for the proposed project referenced above. The focus of the project is the development of a new specific plan for an approximately 675-acre mixed -use corridor between Third Street and Sixth Street and between Tippecanoe Avenue and the Interstate 210 Freeway, in the Cities of Highland and San Bernardino. The accompanying map, based on the USGS Redlands and San Bernardino South, Calif., 7.5' quadrangles, depict the location of the study area in T1S R3W and T1S R4W, SBBM, mostly within the Rancho San Bernardino land grant.

According to records on file at the South Central Coastal Information Center (SCCIC), there are 110 known historical/archaeological sites, including 101 historic-period buildings, within the boundaries of the project area. Outside the project boundaries but within a one-mile radius, SCCIC records show that 81 historical/archaeological sites, 10 "pending" sites, and four isolates—i.e., localities with fewer than three artifacts—were previously recorded. Two of the known sites and two of the isolates were of prehistoric–i.e., Native American—origin, described as a campsite and a collection of groundstone artifacts such as metates and mortars, all located a half-mile or more from the project area. The other 79 sites, 10 pending sites, and other two isolates dated to the historic period and included at least 66 buildings, canals/creeks/ditches, roads, refuse scatters, and a historical railroad.

In a letter dated February 9, 2017, the Native American Heritage Commission reports that the sacred lands record search identified no Native American cultural resources within the project area, but recommends that local Native American groups be contacted for further information (see attached). Therefore, as part of the cultural resources study for this project, I am writing to request your input on potential Native American cultural resources in or near the project area.

Please respond at your earliest convenience if you have any specific knowledge of sacred/ religious sites or other sites of Native American traditional cultural value in or near the project area, or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agency, namely the Inland Valley Development Agency.

We would also like to clarify that, as the cultural resources consultant for the project, CRM TECH is not involved in the AB 52-compliance process or in government-to-government consultations. The purpose of this letter is to seek any information that you may have to help us determine if there are

cultural resources in or near the project area that we should be aware of. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo
Project Archaeologist/Native American liaison
CRM TECH
Email: ngallardo@crmtech.us

From: Joan Schneider <JSchneider@sanmanuel-nsn.gov>
Sent: Sunday, April 9, 2017 9:52 AM
Cc: ngallardo@crmtech.us
Subject: Inland Valley Development Agency Specific Plan Project

April 8, 2017

Re: Inland Valley Development Agency Specific Plan Project within the cities of Highland and San Bernardino

Dear Ms. Gallardo

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project(s). SMBMI appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on February 24, 2017. Although SMBMI's response is somewhat beyond the 30-day response time as legislated, we are hoping that you will consider the Tribe's comments for the initial study. By this e-mail, SMBMI will be requesting to consult with the Inland Valley Development Agency as the Lead Agency on this project pursuant to CEQA (as amended, 2015) and CA PRC 21080.3.1. The proposed project area exists within Serrano ancestral territory and, therefore, is of interest to the Tribe. As you are no doubt aware, the City Creek area is especially culturally sensitive for the Serrano people and that sensitivity is not limited to the prehistoric time frame. You may wish to alert your client that SMBMI will be requesting both archaeological and Tribal monitoring (from a list of SMBMI-approved Tribal monitors) for this project. SMBMI will also ask that specific language be included in any permitting for this project.

Due to the nature and location of the proposed project, SMBMI respectfully requests that the Cultural Resources Assessment that CRM Tech is preparing include:

_X__. A records search of the Sacred Lands Files managed by the CA Native American Heritage Commission and a site file and associated literature search at the appropriate California Historical Resources Information System Information Center to identify any and all recorded cultural resources within a 1-mile radius of the proposed project location(s), as well as general background research using GLO maps, Sanborn maps, historical atlases, city and state records, and other historical documents;
_X__. Additional maps/illustrations be provided, specifically including:
_X__ an aerial map;
_X__a USGS quadrangle map;

_X__a map indicating the search radius of the background research, as well as the locations where previous studies were conducted and where known historic resources are located;
_X__photographs of the proposed project area;
_X__engineering/design plans for the proposed project, especially plans indicating where ground-disturbing activities will occur and to what horizontal and vertical extent.
X___. A Phase I archaeological investigation of the totality (100%) of the proposed project's area of potential effect (APE) via the employ of a number of methods, including pedestrian survey that employs a transect interval of no more than 10 meters, shovel test probes, remote sensing, and/or deep testing via controlled units or trenching of appropriate landscapes. The use of specific field methods and techniques must be justifiable and dependent upon the type and amount of ground cover present (visibility), the topographic setting (degree of slope, proximity to water, etc.), past land use (degree of prior disturbance), and probability for encountering previously undocumented resources during the proposed project (low, moderate, high probability). We strongly recommend that visibility must equal 50% or greater of the ground surface area to use pedestrian survey/reconnaissance only. Areas that have not been disturbed in the past and/or high probability areas must be explored using sub-surface testing methods in addition to pedestrian survey. Additionally, we ask that there be no collection of artifacts or excavation of features during any Phase I archaeological survey.

The provision of this information will assist San Manuel Band of Mission Indians in ascertaining whether or not the Tribe will assume consulting party status under CEQA and participate, moving forward, in project review and implementation. Please note, however, that if this information cannot be provided within the Tribe's 30-day response window, the Tribe automatically elects to be a consulting party under CEQA, as stipulated in AB52. Additionally, the CRM Department asks that the requested information be disseminated digitally via e-mail,
FTP site, or some other similar technology.

Once again, the San Manuel Band of Mission Indians appreciates the opportunity to comment on this proposed project at this stage and looks forward to seeing the Assessment that CRM Tech is preparing.

Respectfully,

San Manuel Band of Mission Indians
Cultural Resource Management Department
Consulting Archaeologist
jschneider@sanmanuel-nsn.gov
26569 Community Center Drive
Highland, CA 92346

APPENDIX 2

HISTORIC-PERIOD BUILDINGS TO BE RECORDED AND EVALUATED IN THE PLANNING AREA

APN	Street Address	City	Construction Date*
027913101	7917 Tippecanoe Avenue	Highland	Pre-1968
027913102	24939 6th Street	San Bernardino	Pre-1968
027913104	24963 6th Street	San Bernardino	Pre-1968
027913105	24971 6th Street	San Bernardino	Pre-1968
027913106	24985 6th Street	San Bernardino	Pre-1968
027913107	25003 6th Street	San Bernardino	Pre-1968
027913109	25029 6th Street	San Bernardino	Pre-1968
027913110	25039 6th Street	San Bernardino	Pre-1968
027913119	24954 5th Street	Highland	Pre-1968
027913123	7981 Tippecanoe Avenue	Highland	Pre-1968
027913124	7973 Tippecanoe Avenue	Highland	Pre-1968
027913125	7965 Tippecanoe Avenue	Highland	Pre-1968
027913127	7945 Tippecanoe Avenue	Highland	Pre-1968
027913130	25013 6th Street	San Bernardino	Pre-1968
027913132	25014 5th Street	San Bernardino	Pre-1968
027913138	7955 Tippecanoe Avenue	Highland	Pre-1968
027914104	24969 5th Street	San Bernardino	Pre-1959
027914108	8087 Tippecanoe Avenue	Highland	Pre-1959
027914120	8113 Tippecanoe Avenue	Highland	Pre-1966
027914121	8125 Tippecanoe Avenue	Highland	Pre-1966
027914128	24991 5th Street	San Bernardino	Pre-1959
027914130	8079 Tippecanoe Avenue	Highland	Pre-1966
027914155	8035 Tippecanoe Avenue	Highland	Pre-1966
027914159	8089 Tippecanoe Avenue	Highland	Pre-1966
027914166	24993 5th Street	San Bernardino	Pre-1959
027914174	25019 5th Street	Highland	Pre-1959
027915110	25162 3rd Street	San Bernardino	Pre-1959
027915114	25112 3rd Street	San Bernardino	Pre-1959
027915116	25094 3rd Street	San Bernardino	Pre-1959
027915123	25062 3rd Street	San Bernardino	Pre-1959
027915126	25138 3rd Street	San Bernardino	Pre-1959
027915130	25075 5th Street	San Bernardino	Pre-1959
027915133	25187 4th Street	San Bernardino	Pre-1959
027915134	25126 4th Street	San Bernardino	Pre-1959
027915135	25124 4th Street	San Bernardino	Pre-1959
027915136	25060 3rd Street	San Bernardino	Pre-1959
027915137	25070 3rd Street	San Bernardino	Pre-1959
027915146	25051 5th Street	Highland	Pre-1959
027916103	25167 5th Street	San Bernardino	Pre-1966
027916104	8036 Marilyn Avenue	San Bernardino	Pre-1966
027916105	8046 Marilyn Avenue	San Bernardino	Pre-1966
027916204	25191 5th Street	San Bernardino	Pre-1959
027916205	25215 5th Street	San Bernardino	Pre-1959
027916207	8036 Donna Drive	San Bernardino	Pre-1966
027916208	8044 Donna Drive	San Bernardino	Pre-1966
027916209	8047 Marilyn Avenue	San Bernardino	Pre-1966
027916210	8035 Marilyn Avenue	San Bernardino	Pre-1966
027916302	25249 5th Street	San Bernardino	Pre-1966

027916304	25269 5th Street	San Bernardino	Pre-1966
027916307	8036 Michael Drive	San Bernardino	Pre-1966
027916308	8044 Michael Drive	San Bernardino	Pre-1966
027916309	8054 Michael Drive	San Bernardino	Pre-1966
027916310	8043 Donna Drive	San Bernardino	Pre-1966
027916311	8035 Donna Drive	San Bernardino	Pre-1966
027916313	8021 Donna Drive	San Bernardino	Pre-1966
027916405	8043 Michael Drive	San Bernardino	Pre-1966
027916406	8055 Michael Drive	San Bernardino	Pre-1966
027916501	25206 4th Street	Highland	Pre-1959
027916502	25154 4th Street	Highland	Pre-1959
027916503	25210 4th Street	San Bernardino	Pre-1959
027916504	25218 4th Street	San Bernardino	Pre-1959
027916505	25226 4th Street	San Bernardino	Pre-1959
027916506	25232 4th Street	San Bernardino	Pre-1959
027916507	25240 4th Street	San Bernardino	Pre-1959
027916508	25248 4th Street	San Bernardino	Pre-1959
027916509	25258 4th Street	San Bernardino	Pre-1959
027916510	25268 4th Street	San Bernardino	Pre-1959
027916511	25270 4th Street	San Bernardino	Pre-1959
027916512	25276 4th Street	San Bernardino	Pre-1959
027916513	25280 4th Street	Highland	Pre-1959
027916514	25288 4th Street	San Bernardino	Pre-1959
027916515	25294 4th Street	San Bernardino	Pre-1959
027916516	25300 4th Street	San Bernardino	Pre-1959
027916517	25308 4th Street	San Bernardino	Pre-1959
027916518	25310 4th Street	San Bernardino	Pre-1959
027916519	25324 4th Street	San Bernardino	Pre-1959
027917101	8110 Marilyn Avenue	San Bernardino	Pre-1959
027917102	8124 Marilyn Avenue	Highland	Pre-1959
027917103	8126 Marilyn Avenue	San Bernardino	Pre-1959
027917104	8132 Marilyn Avenue	San Bernardino	Pre-1959
027917105	8144 Marilyn Avenue	San Bernardino	Pre-1959
027917106	8154 Marilyn Avenue	San Bernardino	Pre-1959
027917107	8162 Marilyn Avenue	Highland	Pre-1959
027917108	8170 Marilyn Avenue	San Bernardino	Pre-1959
027917201	8125 Marilyn Avenue	San Bernardino	Pre-1959
027917202	25227 4th Street	San Bernardino	Pre-1959
027917203	25231 4th Street	Highland	Pre-1959
027917204	25239 4th Street	San Bernardino	Pre-1959
027917205	25247 4th Street	San Bernardino	Pre-1959
027917206	25253 4th Street	San Bernardino	Pre-1959
027917207	25259 4th Street	San Bernardino	Pre-1959
027917208	25267 4th Street	San Bernardino	Pre-1959
027917209	25275 4th Street	San Bernardino	Pre-1959
027917210	25281 4th Street	San Bernardino	Pre-1959
027917211	25287 4th Street	San Bernardino	Pre-1959
027917212	25293 4th Street	San Bernardino	Pre-1959
027917213	25299 4th Street	San Bernardino	Pre-1959
027917214	25305 4th Street	San Bernardino	Pre-1959

027917215	25313 4th Street	San Bernardino	Pre-1959
027917216	25319 4th Street	San Bernardino	Pre-1959
027917217	25325 4th Street	Highland	Pre-1959
027917218	25326 Court Street	San Bernardino	Pre-1959
027917219	25318 Court Street	San Bernardino	Pre-1959
027917220	25310 Court Street	San Bernardino	Pre-1959
027917221	25304 Court Street	San Bernardino	Pre-1959
027917222	25296 Court Street	San Bernardino	Pre-1959
027917223	25290 Court Street	Highland	Pre-1959
027917224	25284 Court Street	San Bernardino	Pre-1959
027917225	25278 Court Street	San Bernardino	Pre-1959
027917226	25268 Court Street	San Bernardino	Pre-1959
027917227	25264 Court Street	San Bernardino	Pre-1959
027917228	25256 Court Street	San Bernardino	Pre-1959
027917229	25246 Court Street	San Bernardino	Pre-1959
027917231	25234 Court Street	San Bernardino	Pre-1959
027917232	25226 Court Street	San Bernardino	Pre-1959
027917233	25218 Court Street	San Bernardino	Pre-1959
027917234	8147 Marilyn Avenue	San Bernardino	Pre-1959
027917301	8177 Marilyn Avenue	San Bernardino	Pre-1959
027917302	25227 Court Street	San Bernardino	Pre-1959
027917303	25233 Court Street	San Bernardino	Pre-1959
027917307	25236 3rd Street	San Bernardino	Pre-1959
027917308	25236 3rd Street	San Bernardino	Pre-1959
027917311	25289 Court Street	San Bernardino	Pre-1959
027917312	25295 Court Street	San Bernardino	Pre-1959
027917316	25321 Court Street	San Bernardino	Pre-1959
027917325	25236 3rd Street	San Bernardino	Pre-1959
027918106	8056 Del Rosa Drive	San Bernardino	Pre-1966
027918201	8023 Del Rosa Drive	San Bernardino	Pre-1966
027918206	8036 Del Rosa Avenue	San Bernardino	Pre-1966
027918207	8042 Del Rosa Avenue	San Bernardino	Pre-1966
027918208	8050 Del Rosa Avenue	San Bernardino	Pre-1966
027918209	8058 Del Rosa Avenue	San Bernardino	Pre-1966
027918307	8034 Shirley Avenue	San Bernardino	Pre-1966
027918308	8044 Shirley Avenue	San Bernardino	Pre-1966
027918309	8052 Shirley Avenue	San Bernardino	Pre-1966
027918310	8070 Shirley Avenue	San Bernardino	Pre-1966
027918311	8059 Del Rosa Avenue	San Bernardino	Pre-1966
027918312	8049 Del Rosa Avenue	San Bernardino	Pre-1966
027918313	8041 Del Rosa Avenue	San Bernardino	Pre-1966
027918314	8035 Del Rosa Avenue	San Bernardino	Pre-1966
027918401	8025 Shirley Avenue	San Bernardino	Pre-1966
027918404	8033 Shirley Avenue	San Bernardino	Pre-1966
027918405	8043 Shirley Avenue	San Bernardino	Pre-1966
027918406	8051 Shirley Avenue	San Bernardino	Pre-1966
027918407	8061 Shirley Avenue	San Bernardino	Pre-1966
027918409	8067 Shirley Avenue	San Bernardino	Pre-1966
027918410	8071 Shirley Avenue	San Bernardino	Pre-1966
027918502	25330 4th Street	San Bernardino	Pre-1959

027918507	25372 4th Street	San Bernardino	Pre-1959
027918508	25378 4th Street	Highland	Pre-1959
027918509	25384 4th Street	San Bernardino	Pre-1959
027918511	25414 4th Street	San Bernardino	Pre-1959
027918512	25424 4th Street	San Bernardino	Pre-1959
027918513	25430 4th Street	San Bernardino	Pre-1959
027918514	25440 4th Street	San Bernardino	Pre-1959
027918515	25450 4th Street	San Bernardino	Pre-1959
027918516	25462 4th Street	San Bernardino	Pre-1959
027918517	25466 4th Street	San Bernardino	Pre-1959
027918519	25486 4th Street	San Bernardino	Pre-1959
027918520	25394 4th Street	San Bernardino	Pre-1959
027918521	8092 Del Rosa Avenue	San Bernardino	Pre-1966
027918530	25480 4th Street	San Bernardino	Pre-1959
027919101	25331 4th Street	San Bernardino	Pre-1959
027919102	25337 4th Street	San Bernardino	Pre-1959
027919106	25367 4th Street	Highland	Pre-1966
027919107	25373 4th Street	San Bernardino	Pre-1966
027919108	25383 4th Street	San Bernardino	Pre-1966
027919109	25393 4th Street	San Bernardino	Pre-1966
027919110	8130 Del Rosa Avenue	San Bernardino	Pre-1966
027919111	25384 Court Street	San Bernardino	Pre-1966
027919112	25374 Court Street	San Bernardino	Pre-1966
027919113	25368 Court Street	San Bernardino	Pre-1966
027919118	25334 Court Street	San Bernardino	Pre-1959
027919201	25331 Court Street	San Bernardino	Pre-1959
027919210	8158 Del Rosa Avenue	Highland	Pre-1966
027919212	25382 3rd Street	San Bernardino	Pre-1966
027919302	8118 Shirley Avenue	San Bernardino	Pre-1966
027919304	8156 Shirley Avenue	San Bernardino	Pre-1966
027919305	8160 Shirley Avenue	San Bernardino	Pre-1966
027919306	8170 Shirley Avenue	San Bernardino	Pre-1966
027919307	25454 3rd Street	San Bernardino	Pre-1966
027919309	25436 3rd Street	San Bernardino	Pre-1966
027919312	8175 Del Rosa Avenue	San Bernardino	Pre-1966
027919313	8163 Del Rosa Avenue	San Bernardino	Pre-1966
027919314	8157 Del Rosa Avenue	San Bernardino	Pre-1966
027919315	8147 Del Rosa Avenue	San Bernardino	Pre-1966
027919316	8139 Del Rosa Avenue	San Bernardino	Pre-1966
027919317	8131 Del Rosa Avenue	San Bernardino	Pre-1966
027919318	8119 Del Rosa Avenue	San Bernardino	Pre-1966
027919319	8113 Del Rosa Avenue	Highland	Pre-1966
027919402	8119 Shirley Avenue	San Bernardino	Pre-1968
027919403	8127 Shirley Avenue	San Bernardino	Pre-1966
027919404	8151 Shirley Avenue	San Bernardino	Pre-1966
027920101	25067 6th Street	San Bernardino	Pre-1968
027920103	25079 6th Street	San Bernardino	Pre-1968
027920105	25105 6th Street	San Bernardino	Pre-1968
027920106	25117 6th Street	San Bernardino	Pre-1968
027920119	25125 6th Street	San Bernardino	Pre-1968

027920120	25137 6th Street	San Bernardino	Pre-1968
027921101	25457 6th Street	San Bernardino	Pre-1966
027921109	25511 6th Street	San Bernardino	Pre-1966
027921122	25499 6th Street	San Bernardino	Pre-1966
027921127	25476 5th Street	San Bernardino	Pre-1966
027921130	25509 6th Street	Highland	Pre-1966
027921131	25471 6th Street	San Bernardino	Pre-1966
027921132	25481 6th Street	San Bernardino	Pre-1966
027922102	25639 6th Street	San Bernardino	Pre-1966
027922110	7920 Sterling Avenue	San Bernardino	Pre-1966
027922111	25685 6th Street	San Bernardino	Pre-1966
027922112	7926 Sterling Avenue	San Bernardino	Pre-1966
119222101	26009 6th Street	Highland	Pre-1959
119222103	7936 Lankershim Avenue	Highland	Pre-1959
119222104	7942 Lankershim Avenue	Highland	Pre-1959
119222105	7960 Lankershim Avenue	San Bernardino	Pre-1959
119222109	7974 Lankershim Avenue	San Bernardino	Pre-1959
119224104	2325 5th Street	San Bernardino	Pre-1959
119229101	26111 6th Street	Highland	Pre-1966
119229102	26127 6th Street	San Bernardino	Pre-1966
119229103	26129 6th Street	Highland	Pre-1966
119229106	26179 6th Street	Highland	Pre-1966
119229107	26181 6th Street	Highland	Pre-1966
119229108	7904 Roberts Street	Highland	Pre-1966
119229112	7922 Roberts Street	Highland	Pre-1968
119229113	7945 Lankershim Avenue	Highland	Pre-1968
119229115	7961 Lankershim Avenue	Highland	Pre-1966
119229116	7973 Lankershim Avenue	Highland	Pre-1966
119229128	7961 Leslie Street	Highland	Pre-1966
119229129	7971 Leslie Street	Highland	Pre-1966
119229132	7944 Leslie Street	Highland	Pre-1968
119229133	7952 Leslie Street	Highland	Pre-1968
119253107	26577 6th Street	Highland	Pre-1966
119253109	26569 6th Street	Highland	Pre-1966
119253112	26543 6th Street	Highland	Pre-1968
119253113	26531 6th Street	Highland	Pre-1968
119253114	7911 6th Street	Highland	Pre-1968
119253115	7923 Victoria Avenue	Highland	Pre-1968
119253116	7933 Victoria Avenue	Highland	Pre-1968
119253118	26534 Ward Street	Highland	Pre-1968
119253119	26544 Ward Street	Highland	Pre-1968
119253120	26556 Ward Street	Highland	Pre-1968
119253122	26576 Ward Street	Highland	Pre-1968
119253123	26590 Ward Street	Highland	Pre-1968
119253124	26598 Ward Street	Highland	Pre-1968
119253125	26595 Ward Street	Highland	Pre-1959
119253126	26589 Ward Street	Highland	Pre-1959
119253127	26577 Ward Street	Highland	Pre-1959
119253128	26565 Ward Street	Highland	Pre-1959
119253129	26553 Ward Street	Highland	Pre-1959

119253130	26545 Ward Street	Highland	Pre-1959
119253131	26531 Ward Street	Highland	Pre-1959
119253132	7957 Victoria Avenue	Highland	Pre-1959
119253133	7977 Victoria Avenue	Highland	Pre-1959
119253134	26607 6th Street	Highland	Pre-1968
119253135	26627 6th Street	Highland	Pre-1968
119253136	26637 6th Street	Highland	Pre-1968
119253137	26647 6th Street	Highland	Pre-1968
119253138	26657 6th Street	Highland	Pre-1968
119253139	26651 6th Street	Highland	Pre-1968
119253140	26659 6th Street	Highland	Pre-1968
119253141	26669 6th Street	Highland	Pre-1968
119253142	26677 6th Street	Highland	Pre-1968
119253143	26687 6th Street	Highland	Pre-1968
119253144	26694 Ward Street	Highland	Pre-1968
119253145	26674 Ward Street	Highland	Pre-1966
119253146	26654 Ward Street	Highland	Pre-1966
119253147	26644 Ward Street	Highland	Pre-1966
119253149	26624 Ward Street	Highland	Pre-1966
119253151	26604 Ward Street	Highland	Pre-1966
119253152	26605 Ward Street	Highland	Pre-1966
119253157	26665 Ward Street	Highland	Pre-1966
119253158	26675 Ward Street	Highland	Pre-1966
119253160	7968 Cunningham Street	Highland	Pre-1966
119253169	26604 5th Street	Highland	Pre-1966
119254103	26797 6th Street	Highland	Pre-1966
119254201	26717 6th Street	Highland	Pre-1966
119254202	26727 6th Street	Highland	Pre-1966
119254203	26737 6th Street	Highland	Pre-1966
119254204	26747 6th Street	Highland	Pre-1966
119254205	26757 6th Street	Highland	Pre-1966
119254206	26767 6th Street	Highland	Pre-1966
119254207	26777 6th Street	Highland	Pre-1966
119254208	26787 6th Street	Highland	Pre-1966
119254215	26730 Ward Street	Highland	Pre-1966
119254216	26720 Ward Street	Highland	Pre-1966
119254226	26789 Ward Street	Highland	Pre-1966
119254227	26789 Ward Street	Highland	Pre-1966
119254228	26789 Ward Street	Highland	Pre-1966
119254229	26789 Ward Street	Highland	Pre-1966
119254238	26710 5th Street	Highland	Pre-1968
119255104	26530 3rd Street	Highland	Pre-1966
119255105	265403rd Street	Highland	Pre-1966
119255106	26552 3rd Street	Highland	Pre-1966
119255107	26562 3rd Street	Highland	Pre-1966
119256104	26811 5th Street	Highland	Pre-1968
119256109	8046 Central Avenue	Highland	Pre-1959
119256113	26875 4th Street	Highland	Pre-1966
119261101	27002 Meines Street	Highland	Pre-1959
119261102	26970 Meines Street	Highland	Pre-1959

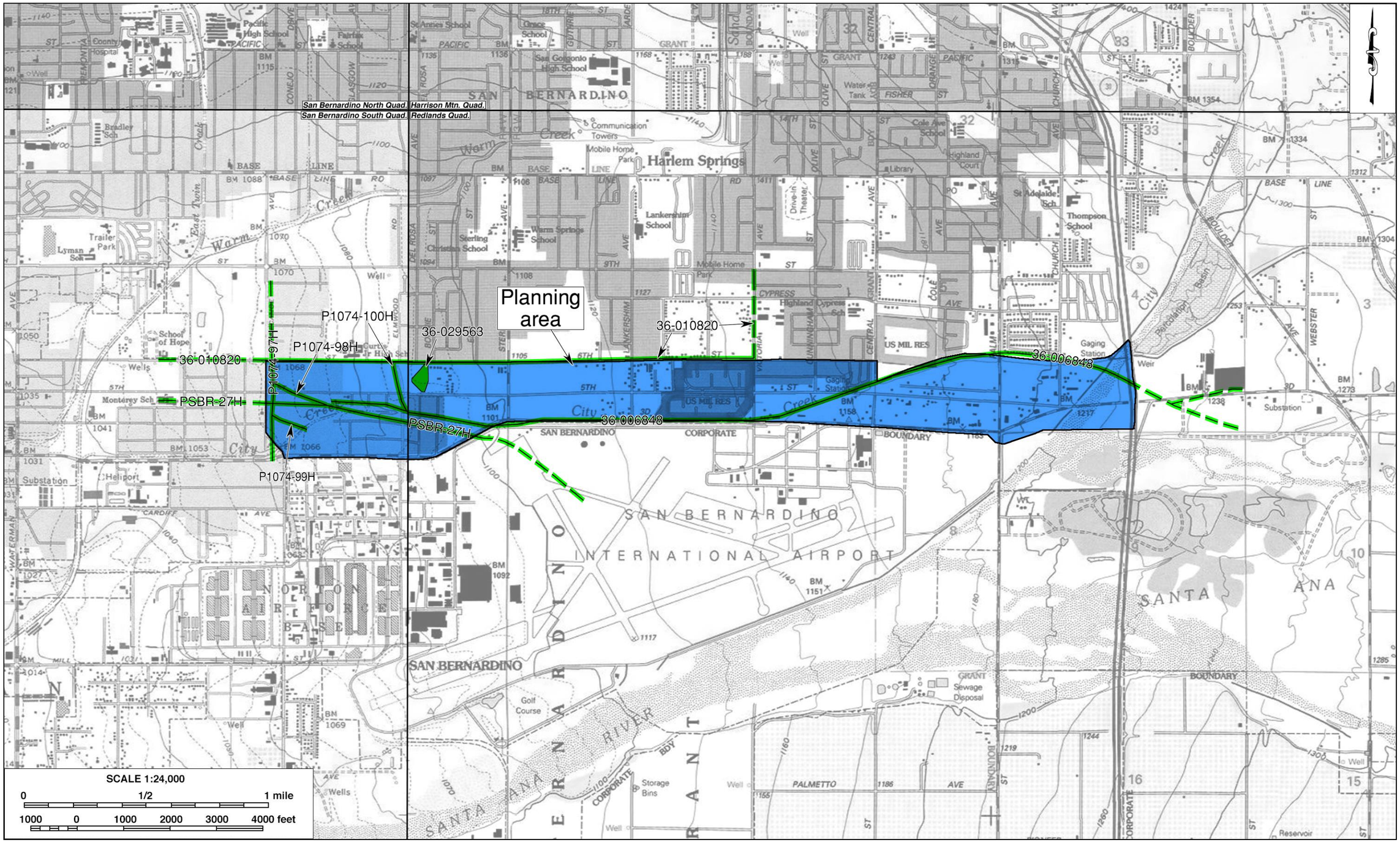
119261104	27000 Meines Street	Highland	Pre-1966
119262103	27220 Meines Street	Highland	Pre-1959
119262105	27184 Meines Street	Highland	Pre-1968
119262109	27124 Meines Street	Highland	Pre-1968
119263111	27059 5th Street	Highland	Pre-1959
119263121	26998 3rd Street	Highland	Pre-1938
119264107	8068 Palm Avenue	Highland	Pre-1966
119264118	27110 3rd Street	Highland	Pre-1966
119264120	27134 3rd Street	Highland	Pre-1966
119264121	27132 3rd Street	Highland	Pre-1966
119264123	27136 3rd Street	Highland	Pre-1966
119264125	27178 3rd Street	Highland	Pre-1966
120131116	27541 5th Street	Highland	Pre-1968
120131125	27371 5th Street	Highland	Pre-1968
120132125	8009 Church Avenue	Highland	Pre-1959
120132128	8009 Church Avenue	Highland	Pre-1938
120132156	7957 Church Avenue	Highland	Pre-1938 (altered)

* Based on NETR Online 1938-1968.

APPENDIX 3

LOCATION OF PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES IN THE PLANNING AREA

(Confidential)


San Bernardino North Quad.
San Bernardino South Quad.
Harrison Mtn. Quad.
Redlands Quad.
Planning area
P1074-100H
P1074-98H
P1074-97H
P1074-99H
36-029563
36-010820
36-010820
36-006848
36-006848
PSBR-27H
PSBR-27H
SAN BERNARDINO
INTERNATIONAL AIRPORT
NORTON AIR FORCE BASE
SANTA ANA RIVER
Harlem Springs
SCALE 1:24,000
0 1/2 1 mile
1000 0 1000 2000 3000 4000 feet

APPENDIX 3b

Cultural Report (2020)

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

CITY CREEK CHANNEL PROJECT

Cities of San Bernardino and Highland
San Bernardino County, California

For Submittal to:

Inland Valley Development Agency
1601 E. Third Street, Suite 100
San Bernardino, CA 92408

Prepared for:

Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405

Prepared by:

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

January 30, 2020
CRM TECH Contract No. 3553

Title: Historical/Archaeological Resources Survey Report: City Creek Channel Project, Cities of San Bernardino and Highland, San Bernardino County, California

Author(s): Bai "Tom" Tang, Principal Investigator
Deirdre Encarnación, Archaeologist/Report Writer
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Date: January 30, 2020

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San Bernardino, CA 92408
(909) 382-4100

Prepared for: Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405
(909) 882-3612

USGS Quadrangle: Redlands and San Bernardino South, Calif., 7.5' quadrangles (Rancho San Bernardino land grant; T1S R3-4W, San Bernardino Baseline and Meridian)

Project Size: Approximately three linear miles

Keywords: Eastern San Bernardino Valley; Phase I historical/archaeological resources survey; 36-006848 (CA-SBR-6848H): Cram and van Leuven Ditch, circa 1858/1865; 36-033079: City Creek Channel, circa 1940-1941; PSBR-27H: North Fork Ditch, circa 1856; P1074-97H: McKenzie Ditch, circa 1856; P1074-99H: Whitlock Ditch, circa 1890s; no "historical resources" affected

EXECUTIVE SUMMARY

Between October 2019 and January 2020, at the request of Tom Dodson and Associates, CRM TECH performed a cultural resources study for the proposed City Creek Channel Project in the Cities of San Bernardino and Highland, San Bernardino County, California. The primary subject of the study is a three-mile-long segment of the existing City Creek Channel between Warm Creek on the west and Victoria Avenue on the east. The maximum width of the project area is approximately 80 feet, including 15 feet for an access road along each side of the channel where sufficient space is available. The project alignment extends across a portion of the Rancho San Bernardino land grant lying with Township 1 South, Ranges 3 and 4 West, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the project, which entails various proposed improvements to the City Creek Channel. The Inland Valley Development Agency (IVDA), as the lead agency for the project, initiated the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide IVDA with the necessary information and analysis to determine whether the project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist within the project area. In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, initiated a Native American Sacred Lands File search, pursued historical background research, and carried out a systematic field survey of the entire project area.

The results of these research procedures indicate that two recorded historical/archaeological sites and three "pending" sites were previously identified as lying within or partially within the project area, as listed below:

36-006848 (CA-SBR-6848H)	Cram and van Leuven Ditch, circa 1858/1865
36-033079	Segments of City Creek Channel, circa 1940-1941
P1074-97H	"Pending" site: McKenzie Ditch, circa 1856
P1074-99H	"Pending" site: Whitlock Ditch, circa 1890s
PSBR-27H	"Pending" site: North Fork Ditch, circa 1856

During the field survey, no remnants were found of Sites 36-006848, P1074-97H, P1074-99H, and PSBR-27H, the four irrigation ditches that once crossed the project area. Furthermore, historical sources suggest that the Cram and van Leuven Ditch in fact did not cross the project area, either before or after it was extended to take over the function of the North Fork Ditch in 1865. In light of the drastic changes in the landscape since their abandonment, especially during and after World War II, it is clear that all physical traces of these early irrigation works have been obliterated by later development, at least in the immediate vicinity of this project.

The one remaining site, 36-033079, representing the City Creek Channel itself, was previously determined not to be eligible for listing in the California Register of Historical Resources, and the present study concurs to that evaluation despite the expansion of the site boundary to include the entire length of the channel within the project area. Therefore, it does not meet the definition of a "historical resource" under CEQA provisions.

No other potential "historical resources" were encountered within the project area throughout the course of the study. However, the State of California Native American Heritage Commission states that the Sacred Lands File search indicated the presence of unspecified Native American cultural resource(s) in the general vicinity of the project location and refers further inquiry to the nearby San Manuel Band of Mission Indians. According to CEQA guidelines, the identification of "tribal cultural resources" is beyond the scope of this study and needs to be addressed through government-to-government consultations between IVDA and the pertinent Native American groups pursuant to Assembly Bill (AB) 52.

Based on these findings, CRM TECH recommends to IVDA a conclusion of *No Impact* regarding cultural resources, pending completion of the AB 52 consultation process to ensure the proper identification of potential "tribal cultural resources." No additional cultural resources investigation is recommended for the project unless construction plans undergo such changes as to include areas not covered by this study. If buried cultural materials are encountered during any earth-moving operations associated with the project, all work in the immediate area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between October 2019 and January 2020, at the request of Tom Dodson and Associates, CRM TECH performed a cultural resources study for the proposed City Creek Channel Project in the Cities of San Bernardino and Highland, San Bernardino County, California (Fig. 1). The primary subject of the study is a three-mile-long segment of the existing City Creek Channel between Warm Creek on the west and Victoria Avenue on the east (Figs. 2, 3). The maximum width of the project area is approximately 80 feet, including 15 feet for an access road along each side of the channel where sufficient space is available. The project alignment extends across a portion of the Rancho San Bernardino land grant lying with Township 1 South, Ranges 3 and 4 West, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the project, which entails various proposed improvements to the City Creek Channel. The Inland Valley Development Agency (IVDA), as the lead agency for the project, initiated the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide IVDA with the necessary information and analysis to determine whether the project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist within the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, initiated a Native American Sacred Lands File search, pursued historical background research, and carried out a systematic field survey of the entire project area. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

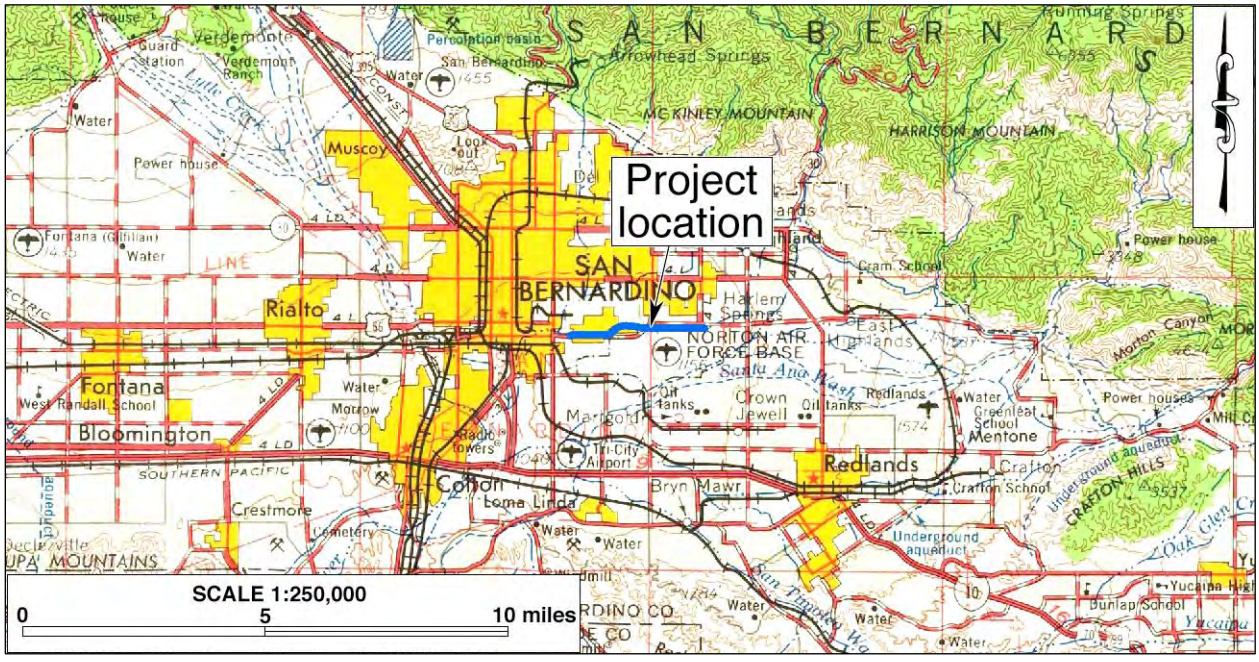


Figure 1. Project vicinity. (Based on USGS San Bernardino, Calif., 120'x60' quadrangle [USGS 1969])

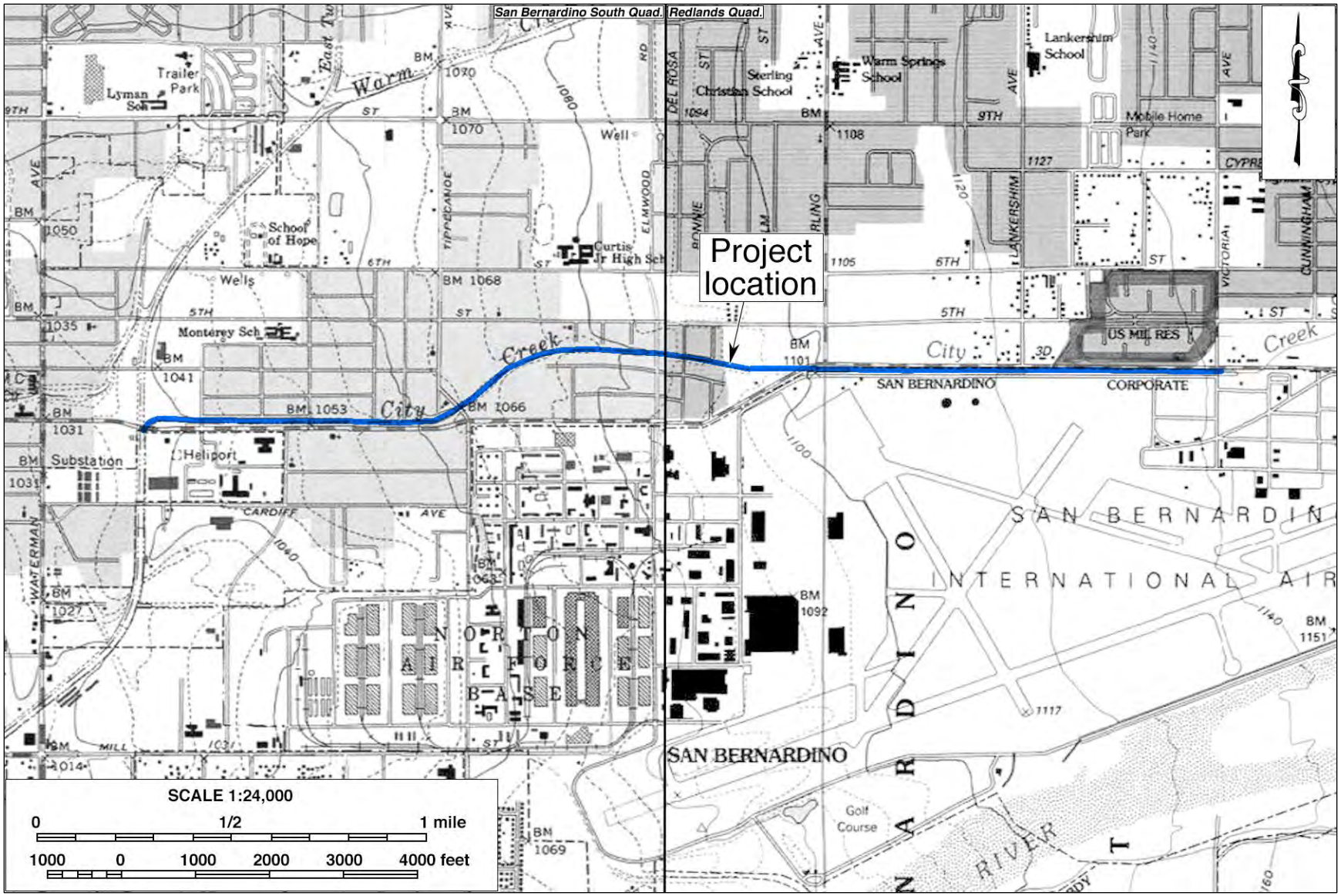


Figure 2. Project area. (Based on USGS San Bernardino South and Redlands, Calif., 7.5' quadrangles [USGS 1980; 1996])



Figure 3. Aerial view of the project area.

SETTING

CURRENT NATURAL SETTING

The project location is in the eastern end of the San Bernardino Valley, a broad inland valley defined by the San Gabriel and San Bernardino Mountain Ranges on the north and a series of low rocky hills on the south. The natural environment of the region is characterized by its temperate Mediterranean climate, with the average maximum temperature in July reaching above 90ºF and the average minimum temperature in January hovering around 35ºF. Rainfall is typically less than 20 inches annually, most of which occurs between November and March.

Situated in a largely urbanized setting, the project route is flanked mainly by residential neighborhoods and vacant land, with some commercial and light industrial properties also adjacent and the San Bernardino International Airport (formerly Norton Air Force Base) occupying most of the land on the south side toward the eastern end. The existing City Creek Channel is lined with concrete for the easternmost one mile, where it runs between the airport and Third Street, and at the western end just before it merges into the Warm Creek Channel (Fig. 4). The rest of the channel features unlined earthen banks, sometimes with fencing and netting along the course (Fig. 4).

The terrain along the project route is relatively level except for the four- to six-foot depth of the channel, with a gradual incline to the east. The elevations range approximately from 1,025 feet to 1,140 feet above mean sea level. Surface soils in the vicinity consist of light greyish medium- to coarse-grained sands mixed with small to large rocks and small boulders. Vegetation observed within project boundaries includes foxtail, tumbleweed, wild mustard, tree tobacco, jimsonweed, and other small grasses and shrubs.

CULTURAL SETTING

Prehistoric Context

The earliest evidence of human occupation in inland southern California was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, with radiocarbon dates clustering around 9,500 B.P. (Horne and McDougall 2008).



Figure 4. Current conditions of the City Creek Channel. *Left*: concrete-lined channel near Victoria Avenue, view to the east; *right*: earthen channel in the middle portion, view to the west. (Photographs taken on December 10, 2019)

Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8,000 and 9,000 B.P. (Grenda 1997). Additional sites with isolated Archaic dart points, bifaces, and other associated lithic artifacts from the same age range have been found in the nearby Cajon Pass area, typically atop knolls with good viewsheds (Basgall and True 1985; Goodman and McDonald 2001; Goodman 2002; Milburn et al. 2008).

The cultural history of southern California has been summarized into numerous chronologies, including the works of Chartkoff and Chartkoff (1984), Warren (1984), and others. The prehistory of Riverside County specifically has been addressed by O'Connell et al. (1974), McDonald, et al. (1987), Keller and McCarthy (1989), Grenda (1993), Goldberg (2001), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural horizons vary regionally, the general framework of the prehistory of inland southern California can be divided into three primary periods:

- Paleoindian Period (ca. 18,000-9,000 B.P.): Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.
- Archaic Period (ca. 9,000-1,500 B.P.): Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- Late Prehistoric Period (ca. 1,500 B.P.-contact): Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

Ethnohistoric Context

The San Bernardino-Highland area is generally considered a part of the homeland of the Serrano Indians, which is centered in the San Bernardino Mountains. Together with that of the Vanyume people, linguistically a subgroup, the traditional territory of the Serrano also includes part of the San Gabriel Mountains, much of the San Bernardino Valley, and the Mojave River valley in the southern portion of the Mojave Desert, reaching as far east as the Cady, Bullion, Sheep Hole, and Coxcomb Mountains. The name "Serrano" was derived from a Spanish term meaning "mountaineer" or "highlander." The basic written sources on Serrano culture are Kroeber (1925), Strong (1929), and Bean and Smith (1978). The following ethnographic discussion of the Serrano people is based mainly on these sources.

Prior to European contact, Serrano subsistence was defined by the surrounding landscape and primarily based on the gathering of wild and cultivated foods and hunting, exploiting nearly all of

the resources available. The population settled mostly on elevated terraces, hills, and finger ridges near where flowing water emerged from the mountains. They were loosely organized into exogamous clans led by hereditary heads, and the clans were in turn affiliated with one of two exogamous moieties named for the wildcat, *Tukutam,* and the coyote*, Wahiiam*. The exact nature of the clans, their structure, function, and number are not known, except that each clan was the largest autonomous political and landholding unit. The core of the unit was the patrilineage, although women retained their own lineage names after marriage. There was no pan-tribal political union among the clans, but they shared strong trade, ceremonial, and marital connections that sometimes also extended to other surrounding nations, such as the Kitanemuk, the Tataviam, and the Cahuilla.

The Serrano had a variety of technological skills that they used to acquire food, shelter, and clothing but also to create ornaments and decorations. Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink. Much of this material cultural, elaborately decorated, does not survive in the archaeological record. As usual, the main items found archaeologically relate to subsistence activities.

Although contact with Europeans may have occurred as early as 1771 or 1772, Spanish influence on Serrano lifeways was negligible until the 1810s, when a mission *asistencia* was established on the southern edge of Serrano territory. Between then and the end of the mission era in 1834, most of the Serrano in the western portion of their traditional territory were removed to the nearby missions. In the eastern portion, a series of punitive expeditions in 1866-1870 resulted in the death or displacement of almost all remaining Serrano population in the San Bernardino Mountains. Today, most Serrano descendants are affiliated with the San Manuel Band of Mission Indians, the Morongo Band of Mission Indians, or the Serrano Nation of Indians.

Historic Context

The San Bernardino Valley, along with the rest of Alta California, was claimed by Spain in the late 18th century, and the first European explorers traveled through the area as early as 1772, three years after the beginning of Spanish colonization (Beck and Haase 1974:15). For nearly four decades afterwards, however, the arid inland valley received little attention from the European colonizers, who concentrated their efforts along the Pacific coast. Following the establishment of Mission San Gabriel in 1771, the San Bernardino Valley became a part of the mission's vast land holdings. The name "San Bernardino" was bestowed on the region in the 1810s, when the *asistencia* and an associated mission rancho, both bearing that name, were established in present-day Loma Linda (Lerch and Haenszel 1981).

After gaining independence from Spain in 1821, the Mexican authorities began in 1834 the process of secularization to dismantle the mission system in Alta California. During the next 12 years, former mission ranchos throughout Alta California were surrendered to the Mexican government, and subsequently divided and granted to various prominent citizens of the province. In 1842, the former mission rancho of San Bernardino was granted to members of a prominent Los Angeles family, the Lugos (Schuiling 1984:34).

After the American annexation of Alta California in 1848, the Lugos sold the entire San Bernardino land grant in 1851 to a group of Mormon settlers, who promptly founded the town of San Bernardino, one of the first non-Indian settlements in what is known today as the Inland Empire (Schuiling 1984:45). The early growth of the Mormon colony was promising. It became the county seat of the newly created San Bernardino County in 1853 and was incorporated as a city the next year (*ibid.*:48-49). In 1857, however, the budding town suffered a devastating setback when half its population, responding to a recall from Mormon leaders, left California for Utah, causing the city to disincorporate (*ibid.*:50).

In the 1880s, spurred by the completion of the Santa Fe Railway in 1885, the rise of the profitable citrus industry, and a general land boom that swept through much of southern California, San Bernardino gradually recovered and reincorporated in 1886. With the selection of the city by the Santa Fe Railway as its regional headquarters, San Bernardino embarked on a period of steady growth that lasted well into the 20th century. During World War II, the growth of San Bernardino was further boosted when a U.S. Army Air Corps pilot training base was established in the southeastern portion of the city in 1941 (Richards 1966). Renamed Norton Air Force Base in 1950, the large military installation continued to provide an important driving force in the local economy over the next 45 years until it was closed in 1994.

A few miles to the northeast of San Bernardino, the present-day Highland area received the earliest Euroamerican settlers at least by the mid-1850s (Richards 1966). The name "Highland" was adopted by the settlers in 1883, when the area had a large enough population to warrant the establishment of a school district, and the town of Highland was laid out in 1891 (*ibid.*). During much of the 20th century, Highland remained a small rural settlement best known for citrus cultivation. In recent decades, however, like many other former rural towns in southern California, Highland has experienced rapid growth as a bedroom community, culminating in its incorporation in 1987.

RESEARCH METHODS

RECORDS SEARCH

On November 5, 2019, CRM TECH archaeologist Ben Kerridge conducted the historical/ archaeological resources records search at the South Central Coastal Information Center (SCCIC), California State University, Fullerton. During the records search, Kerridge examined maps and records on file at the SCCIC for previously identified cultural resources in or near the project area and existing cultural resources reports pertaining to the vicinity. Previously identified historical/ archaeological resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Historical Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

SACRED LANDS FILE SEARCH

On October 25, 2019, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands

File. NAHC is the State of California's trustee agency for the protection of "tribal cultural resources," as defined by California Public Resources Code §21074, and is tasked with identifying and cataloging properties of Native American cultural value, including places of special religious, spiritual, or social significance and known graves and cemeteries throughout the state. The response from NAHC is summarized below and attached to this report in Appendix 2.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH principal investigator/ historian Bai "Tom" Tang. Sources consulted during the research included published literature in local and regional history, the U.S. General Land Office (GLO) land survey plat maps dated 1858-1876, U.S. Geological Survey (USGS) topographic maps dated 1901-1996, and aerial photographs taken in 1938-2019. The historic maps are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley. The aerial photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

FIELD SURVEY

On December 10, 2019, CRM TECH archaeologist Daniel Ballester carried out the systematic field survey of the project area. The entire project area was surveyed on foot by walking along the banks of the channel and visually inspecting the ground surface for any indications of potential cultural resources. In the portion of the project area where the channel remains unlined, Ballester walked additional survey transects across the bottom and sidewalls of the channel to inspect the ground surface more intensively.

Using these methods, the project area was surveyed systematically for any evidence of human activities dating to the prehistoric or historic period (i.e., 45 years or older). Ground visibility ranged from poor to fair (30 to 70%) at the time of the survey, depending upon the density of the vegetation growth and the presence of other ground cover, such as refuse deposits. In light of the extent of past ground disturbances in the project area, the level of survey efforts and the ground visibility were considered adequate for this study.

RESULTS AND FINDINGS

RECORDS SEARCH

According to SCCIC records, portions of the project area, mostly near the eastern end, were included in at least 12 previous cultural resources studies completed between 1979 and 2019 (Fig. 5), but the project area as a whole had not been surveyed systematically prior to this study. As a result of these and other similar studies in the vicinity, two recorded historical/archaeological sites and three "pending" sites have been identified as lying within or partially within the project area, including two small segments of the City Creek Channel itself. These five sites are listed below (see App. 3 for further information):

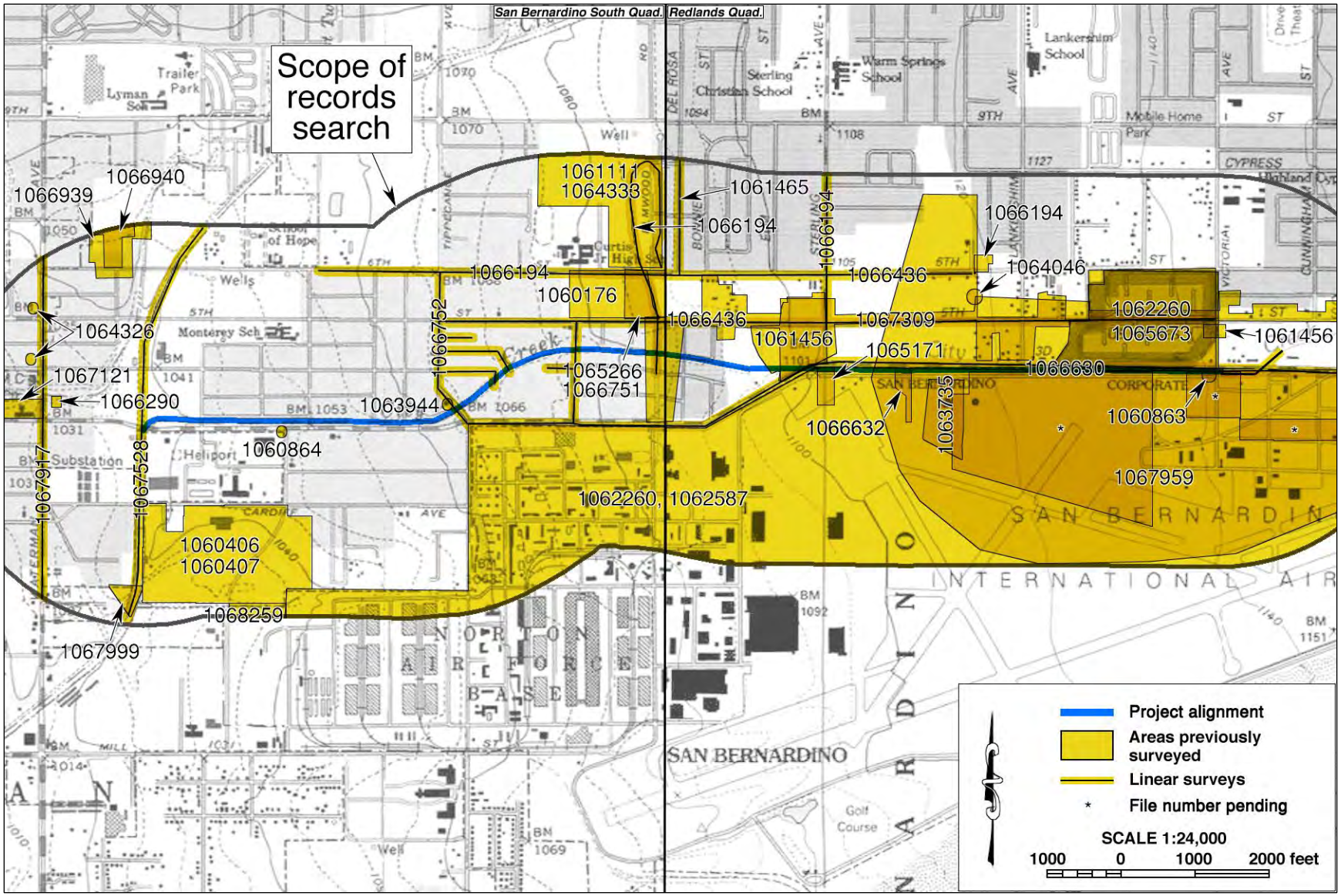


Figure 5. Previous cultural resources studies in the vicinity of the project area, listed by SCCIC file number. Locations of historical/archaeological resources are not shown as a protective measure.

36-006848 (CA-SBR-6848H)	Cram and van Leuven Ditch, circa 1858/1865
36-033079	Segments of City Creek Channel, circa 1940-1941
P1074-97H	"Pending" site: McKenzie Ditch, circa 1856
P1074-99H	"Pending" site: Whitlock Ditch, circa 1890s
PSBR-27H	"Pending" site: North Fork Ditch, circa 1856

The five known sites were subsequently included in the scope of the historical background research and the field survey, as discussed below. Outside the project area but within a half-mile radius, SCCIC records show roughly 30 other previous studies on various tracts of land and linear features (Fig. 5). These studies resulted in the identification of nearly 130 recorded sites and six "pending" sites within the scope of the records search, in addition to those listed above. Only two of the sites were of prehistoric (i.e., Native American) origin. Site 36-002794 consisted of a collection of mortars and metates discovered during construction, and Site 36-001074 was described as a small lithic scatter with ten flakes, but the locations of these sites are not clearly defined in the existing records.

The rest of the sites dated to the historic period and consisted predominantly of buildings, including many associated with Norton Air Force Base. Other historic-period sites in the vicinity included various linear features of infrastructure, such as roads and irrigation ditches. None of these additional sites was found within the area to be impacted by the proposed project, and thus none of them requires further consideration during this study.

SACRED LANDS FILE SEARCH

In response to CRM TECH's inquiry, the Native American Heritage Commission states in a letter dated October 29, 2019, that the Sacred Lands File identified unspecified Native American cultural resource or resources in the general vicinity of the project area. NAHC recommended that the San Manuel Band of Mission Indians near Highland be contacted for additional information and provided a list of other local Native American groups who may also have knowledge of such resource(s) for further consultation. NAHC's reply is attached to this report in Appendix 2 for reference by IVDA in future government-to-government consultations with the local Native American tribes.

HISTORICAL RESEARCH

Historical sources offered ample evidence of settlement and development activities in the project vicinity during the mid- and late 19th century. As early as the mid-1850s, several Mormon settlements were known to have been established on the former Rancho San Bernardino, in addition to the main townsite bearing that name (Scott 1977:12). One of these, the City Creek Settlement, was located in the area along present-day Sixth Street between Waterman Avenue and Sterling Avenue, ¼ to ½ mile north of the project location (*ibid.*). The North Fork Ditch (PSBR-27H), a short irrigation ditch built in 1856 from the Santa Ana River, served as the settlement's main water supply line and evidently crossed the project area near the eastern end (*ibid*.:12, 13).

After a catastrophic flood on the Santa Ana River in 1862 rendered the original North Fork Ditch useless, the nearby Cram and van Leuven Ditch (36-006848), which had been built in 1858 further upstream but had terminated before reaching the project area, was enlarged and lengthened to

convey water allotted to the City Creek Settlement as well (Scott 1977:14-16). The new ditch, completed in 1865, inherited the name of the North Fork Ditch but no longer crossed the project area, traversing east-west near Sixth Street instead (*ibid.*:15-16). In 1881-1882, a "highline ditch" was built along the base of the San Bernardino Mountains to maximize the area irrigated and became known as the North Fork Canal (*ibid.*:17). After that, the 1865 alignment of the combined North Fork Ditch and Cram and van Leuven Ditch near the project area was presumably abandoned.

The other two ditches known to have been once located across the project area, the McKenzie Ditch (P1074-97H) and the Whitlock Ditch (P1074-99H), were both relatively minor irrigation works. The McKenzie Ditch was built around 1856 to divert water from Warm Creek and ran south near present-day Tippecanoe Avenue to irrigate land on both sides of City Creek, crossing the latter by way of a wooden flume (Scott 1977:52, 55). The diminishing flow in Warm Creek and the subdivision of its service area for residential development eventually resulted in the abandonment of that ditch prior to the sale of the water rights to irrigators in Riverside in 1943 (*ibid.*:56). The Whitlock Ditch, a very short ditch that diverted from the north side of City Creek and discharged the surplus water into the McKenzie Ditch, is known to have been in use in 1898, but little further information is available on its history (*ibid.*:52, 58).

By the 1890s, a large number of buildings, most of them likely farmsteads, had appeared around the project location, and a grid of roads had been established, including the forerunners of Third Street, Victoria Avenue, Lankershim Avenue, Sterling Avenue, and Tippecanoe Avenue (Fig. 6). In the 1930s, the road along the eastern portion of the project area was named City Creek Road, while the original alignment of Third Street ran parallel to the south (Fig. 7; NETR Online 1938). Notably, the course of City Creek, then a wide, unregulated wash, did not coincide with the present-day channel along the entire route but traversed further to the south in the eastern reach (Fig. 7; NETR Online 1938). That segment of the channel evidently resulted from the construction of what would become Norton Air Force Base in 1940-1941 (Richards 1966; Norton Air Force Base Museum n.d.).



Figure 6. The project area and vicinity in 1893-1899. (Source: USGS 1901a; 1901b)

In the 1950s, both Third Street and City Creek were clearly shown to have been realigned to their current courses outside the northern boundary of Norton Air Force Base, with Third Street absorbing the former City Creek Road (Fig. 8; NETR Online 1959). By then, the eastern segment of the channel had apparently been lined with concrete, while the western reach of City Creek had also been channelized but left unlined as it is today (NETR Online 1959). The channel at the western end of the project area was realigned between 1959 and 1966, when the Warm Creek Channel was

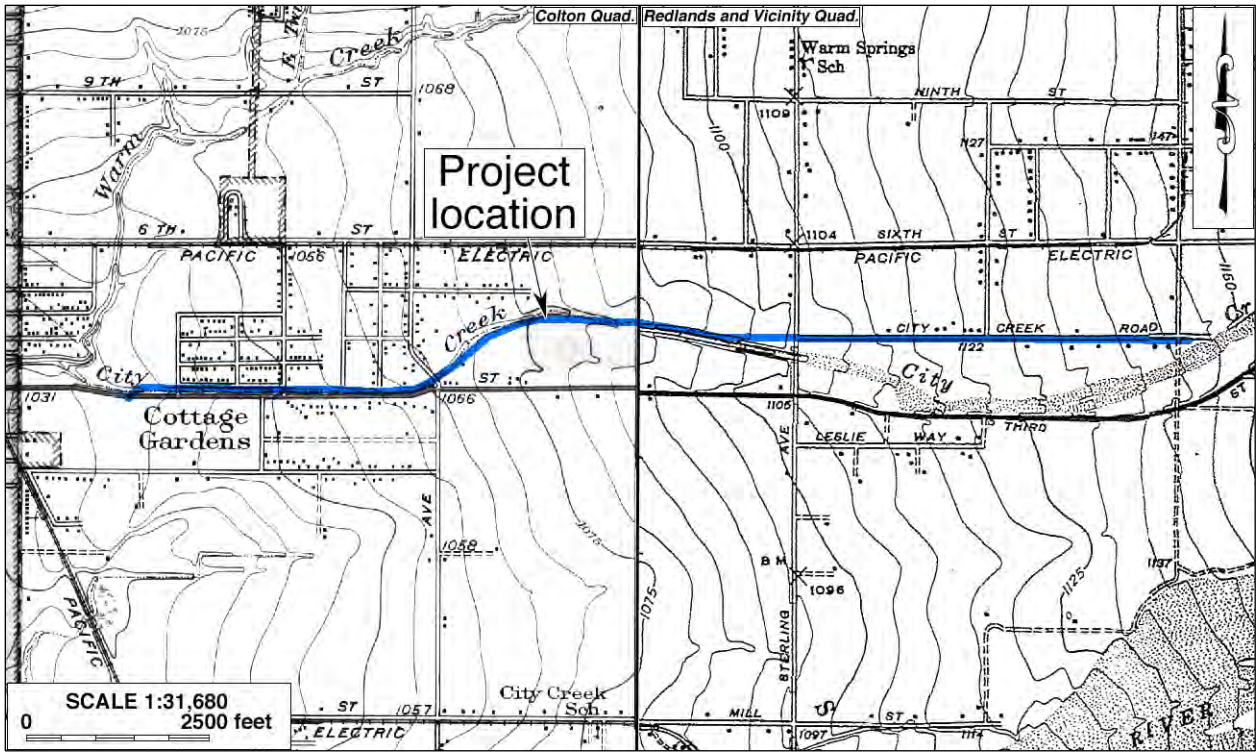


Figure 7. The project area and vicinity in 1936-1939. (Source: USGS 1943a; 1943b)

completely reconfigured (NETR Online 1959; 1966), and the segment extending east from the project area was converted into an underground culvert in 2012-2013, in preparation for the extension of Victorian Avenue onto the former military base in 2014-2016 (Google Earth 2012-2016). The rest of the City Creek Channel in and near the project area has undergone no major changes since 1959 except for the extension of Del Rosa Drive across it sometime between 1968 and 1980 (NETR Online 1959-2016; Google Earth 1996-2019).

FIELD SURVEY

The results of the field survey indicate that the existing City Creek Channel (Site 36-033079) is the only cultural resource of historical or prehistoric origin that is present within the project area today. No remnants were found of the four irrigation ditches that once crossed the project area, namely the Cram and van Leuven Ditch, the McKenzie Ditch, the Whitlock Ditch, and the North Fork Ditch (Sites 36-006848, P1074-97H, P1074-99H, and PSBR-27H). In light of the drastic changes in the landscape since their abandonment, especially during and after World War II, it is clear that all physical traces of these early irrigation works have been obliterated by later development, at least in the immediate vicinity of this project.

Site 36-033079 was originally recorded in 2018 as an approximately 2,480-foot segment of the City Creek Channel near the intersection of Victoria Avenue, and a 700-foot segment at Victoria Avenue crossing was added to the site in 2019 (see App. 3). As a result of the current survey, the site was extended further to the west to encompass the entire project alignment to its confluence with the Warm Creek Channel (see App. 3). As mentioned above, the easternmost one mile of the channel is

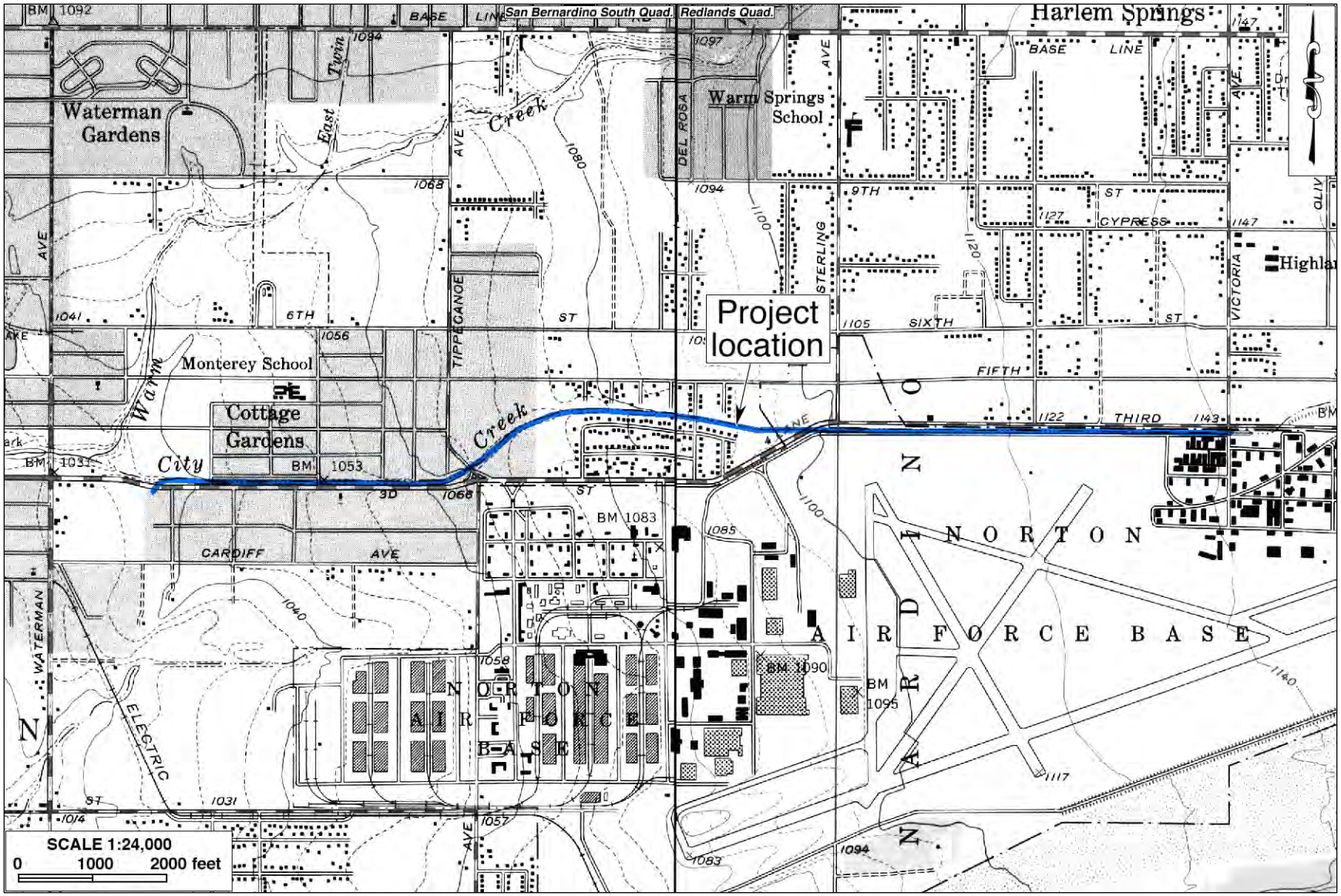


Figure 8. The project area and vicinity in 1952-1954. (Source: USGS 1954a; 1954b)

lined with concrete, as is the westernmost 600 feet, while the rest of the length remains an unlined earthen channel (Fig. 4).

A total of seven minor concrete bridges or culverts of historical age (or possibly of historical age) were recorded as associated features of the site. All of the bridges and culverts are of standard design and construction, and none of them demonstrate any notable characters in architecture or engineering (Fig. 9). These seven bridges or culverts and their construction dates are listed below:

Third Street crossing near Sterling Avenue, pre-1959*
Del Rosa Avenue crossing, pre-1959*
Del Rosa Drive crossing, 1968-1980*
Tippecanoe Avenue crossing, pre-1959*
Pedley Road crossing, pre-1959*
Palm Lane crossing, pre-1959*
Third Street crossing near Warm Creek Channel, 1959-1966*
** Source: NETR Online 1959-1980*



Figure 9. Typical bridges and culverts along the City Creek Channel. *Clockwise from upper left*: Third Street crossing, view to the east; Del Rosa Avenue crossing, view to the southwest; Tippecanoe Avenue crossing, view to the east; Pedley Road crossing, view to the southeast. (Photographs taken on December 10, 2019)

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area and assist IVDA in determining whether such resources meet the official definition of "historical resources" as provided in the California Public Resources Code, in particular CEQA. According to PRC

§5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

In summary of the research results presented above, the only potential "historical resource" identified within the project area during this study is Site 36-033079, representing the City Creek Channel itself, which was constructed in the 1940s-1950s, at least partially during the construction of Norton Air Force Base in 1940-1941. The site was previously recorded in the eastern portion of the project area in 2018 and 2019, and it was found not to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources at the time (Tang et al. 2018:16; 2019:16; Gallardo 2018:2; see App. 3). The present study expanded the site boundary to include the entire three-mile length of the channel within the project area but did not encounter any new data that would warrant a revision of the previous evaluation.

The City Creek Channel is a peripheral feature associated, at least partially, with the establishment of a WWII-era military base but does not demonstrate a unique or particularly close association with that event or with any other events or persons of recognized historic significance. Simple in design and utilitarian in character, the channel and its associated features, such as the bridges and culverts, do not stand out as important examples of any style, type, period, region, or method of construction, nor are they known to represent the work of a prominent architect, designer, engineer, or builder. Finally, as a late-historic-period infrastructure feature of standard construction, the channel demonstrates little potential for any important historical or archaeological information.

Based on these considerations, and in light of the criteria listed above, Site 36-033079 does not appear to meet any of the criteria for listing in the California Register of Historical Resources and thus does not qualify as a "historical resource." No other potential "historical resources" of either prehistoric or historical origin were identified throughout the various avenues of research. Therefore, the present study concludes that no "historical resources" are present within the project area.

CONCLUSION AND RECOMMENDATIONS

CEQA establishes that a project that may cause a substantial adverse change in the significance of a "historical resource" or a "tribal cultural resource" is a project that may have a significant effect on the environment (PRC §21084.1-2). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

In conclusion, the present study finds that the only historical/archaeological site present within the project area, 36-033079, does not constitute a "historical resource" under CEQA provisions. However, the NAHC has reported the presence of unspecified Native American cultural resource(s) in the project vicinity and referred further inquiry to the San Manuel Band of Mission Indians. According to CEQA guidelines, the identification of "tribal cultural resources" is beyond the scope of this study and needs to be addressed through government-to-government consultations between IVDA and the pertinent Native American groups pursuant to Assembly Bill (AB) 52. Therefore, CRM TECH presents the following recommendations to IVDA:

- The proposed project will not cause a substantial adverse change to any known "historical resources."
- A tentative conclusion of *No Impact* on cultural resources appears to be appropriate for this project, pending completion of the AB 52 consultation process to ensure the proper identification of potential "tribal cultural resources."
- No additional cultural resources investigation will be necessary for the project unless construction plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are encountered during any earth-moving operations associated with the project, all work in the immediate area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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APPENDIX 1:
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR/HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, UC Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, UC Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, UC Riverside.
1988-1993	Research Assistant, American Social History, UC Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	Section 106—National Historic Preservation Act: Federal Law at the Local Level. UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands.
1992-1998	Assistant Research Anthropologist, University of California, Riverside
1992-1995	Project Director, Archaeological Research Unit, U. C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U. C. Riverside.
1984-1998	Archaeological Technician, Field Director, and Project Director for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1986.

Memberships

Register of Professional Archaeologists; Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Deirdre Encarnación, M.A.

Education

2003	M.A., Anthropology, San Diego State University, California.
2000	B.A., Anthropology, minor in Biology, with honors; San Diego State University, California.
1993	A.A., Communications, Nassau Community College, Garden City, N.Y.
2001	Archaeological Field School, San Diego State University.
2000	Archaeological Field School, San Diego State University.

Professional Experience

2004-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2001-2003	Part-time Lecturer, San Diego State University, California.
2001	Research Assistant for Dr. Lynn Gamble, San Diego State University.
2001	Archaeological Collection Catalog, SDSU Foundation.

Memberships

Society for California Archaeology; Society for Hawaiian Archaeology; California Native Plant Society.

PROJECT ARCHAEOLOGIST/NATIVE AMERICAN LIAISON
Nina Gallardo, B.A.

Education

2004	B.A., Anthropology/Law and Society, University of California, Riverside.

Professional Experience

2004-	Project Archaeologist, CRM TECH, Riverside/Colton, California.

Cultural Resources Management Reports

Co-author of and contributor to numerous cultural resources management reports since 2004.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, M.S., RPA

Education

2013	M.S., Geographic Information System (GIS), University of Redlands, California.
1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.

Professional Experience

2002-	Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist, CRM TECH, Riverside, California.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside.

Memberships

Register of Professional Archaeologists.

PROJECT ARCHAEOLOGIST
Ben Kerridge, M.A.

Education

2014	Archaeological Field School, Institute for Field Research, Kephallenia, Greece.
2010	M.A., Anthropology, California State University, Fullerton.
2009	Project Management Training, Project Management Institute/CH2M HILL.
2004	B.A., Anthropology, California State University, Fullerton.

Professional Experience

2015-	Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2015	Teaching Assistant, Institute for Field Research, Kephallenia, Greece.
2009-2014	Publications Delivery Manager, CH2M HILL, Santa Ana, California.
2010-	Naturalist, Newport Bay Conservancy, Newport Beach, California.
2006-2009	Technical Publishing Specialist, CH2M HILL, Santa Ana, California.
2002-2006	English Composition/College Preparation Tutor, various locations, California.

Memberships

Society for California Archaeology; Pacific Coast Archaeological Society.

APPENDIX 2

SACRED LANDS FILE SEARCH

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION
915 Capitol Mall, RM 364
Sacramento, CA 95814
(916) 653-4082
(916) 657-5390 – Fax
nahc@pacbell.net

Project: Proposed City Creek Channel Project, Victoria Avenue to Twin Creek (CRM TECH No. 3553)

County: San Bernardino

USGS Quadrangle Name: Redlands and San Bernardino South, Calif.

Township 1 South **Range** 3-4 West SB **BM; Section(s)**: (San Bernardino land grant)

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: Ngallardo@crmtech.us

Project Description: The primary component of the project is to make improvements to approximately three linear miles of the existing City Creek Channel between Victoria Avenue and Twin Creek, to the north of the San Bernardino International Airport, in the City of San Bernardino, San Bernardino County, California.

October 25, 2019

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

October 29, 2019

Nina Gallardo
CRM TECH

VIA Email to: ngallardo@crmtech.us

RE: Proposed City Creek Channel Project – Victoria Avenue to Twin Creek Project, San Bernardino County

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the San Manuel Band of Mission Indians on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Staff Services Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Bernardino County
10/29/2019

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Gabrielino /Tongva Nation
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Gabrielino Tongva Indians of California Tribal Council
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dtorres@morongo-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed City Creek Channel Project – Victoria Avenue to Twin Creek Project, San Bernardino County.

Morongo Band of Mission Indians
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Ramona Band of Cahuilla
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Ramona Band of Cahuilla
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Serrano Nation of Mission Indians
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Soboba Band of Luiseno Indians
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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed City Creek Channel Project – Victoria Avenue to Twin Creek Project, San Bernardino County.

Soboba Band of Luiseno Indians
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jontiveros@soboba-nsn.gov

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APPENDIX 3

PREVIOUSLY IDENTIFIED CULTURAL RESOURCES IN THE PROJECT AREA

4/04

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #: P36-006848
HRI#/Trinomial: CA-SBR-6848H **(UPDATE)**

***Resource Name or Number (Assigned by recorder):** CA-SBR-6848H
***Recorded by:** ECORP Consulting, Inc. ***Date:** 3/9/2006 ☐ **Continuation** ☒ **Update**

This historic archaeological site, consisting of a segment of the Cram-Van Leuven Ditch, was originally recorded in 1993 during a cultural resources survey conducted by Gallegos and Associates. At that time, the ditch was found to be an unlined excavation with a central deeper area and shallower terraces on each side. It was measured at 30 feet wide and 10 feet deep, overall (Eighmey et al. 1993).

During a cultural resources survey conducted in March, 2006 by Ecorp Consulting, Inc. for a proposed residential development, this segment of the ditch was field checked and found to be consistent with the description of the original recorders. However, the ditch is irregular in width and depth, varying from approximately 75 feet wide and 10 feet deep at the eastern end of the segment, to 30 feet or less wide and 5 feet deep farther west. At its west end, the ditch terminates where it is interrupted by a modern concrete flood control channel that runs north-south. Approximately 1,115 feet west of this point, the ditch is completely filled with soil and no longer exists for a distance of approximately 840 feet, where it reemerges again as an open ditch and continues to the west. In the areas where it is still open, the ditch is strewn with boulders and overgrown with shrubs and grass.

References

Eighmey, Jim, Ivan Strudwick, Roxana Phillips, Petei McHenry, John Boughton, and Russell Collett
1993 Archaeological Site Record, Site CA-SBR-6848H, the Cram-Van Leuven Ditch. On file at the San Bernardino Archaeological Information Center, Redlands, California.

Mason, Roger D. and Cary D. Cotterman
2006 *Cultural Resources Survey Report for the Heather Glen Project, City of Highland, San Bernardino County, California.* Prepared by ECORP Consulting, Santa Ana, California. Prepared for North American Residential Communities, San Dimas, California.



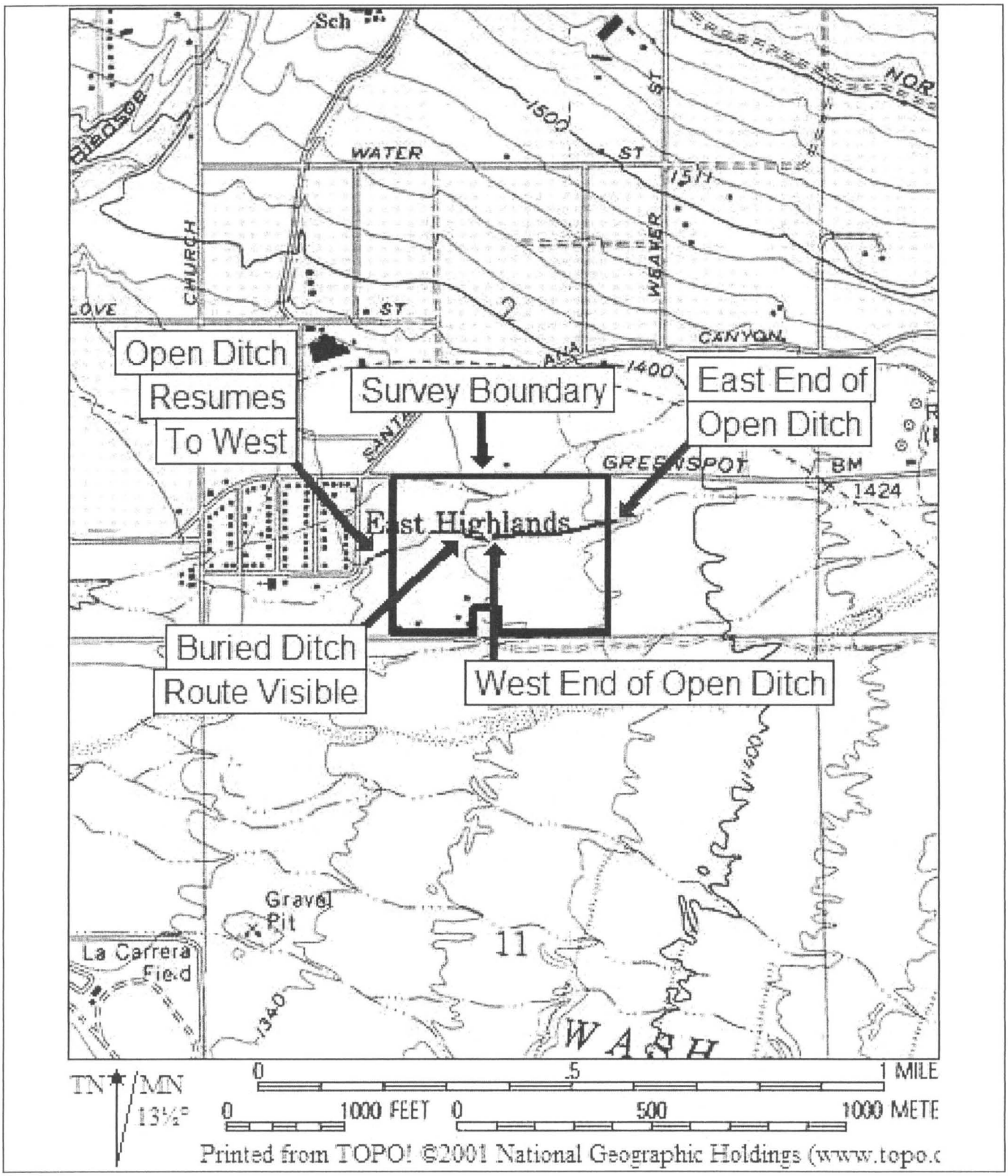
Cram-Van Leuven Ditch (CA-SBR-6848H), view toward west, 3/9/2006. Photo no. 27.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP (Enlarged)

Primary #: P36-006848
HRI#
Trinomial: CA-SBR-6848H **(UPDATE)**

*Map Name: Redlands, Calif.
*Resource Name or Number (Assigned by recorder): Cram-Van Leuven Ditch
*Scale: Enlarged from 1:24,000
*Date of Map: 1996



* Required information

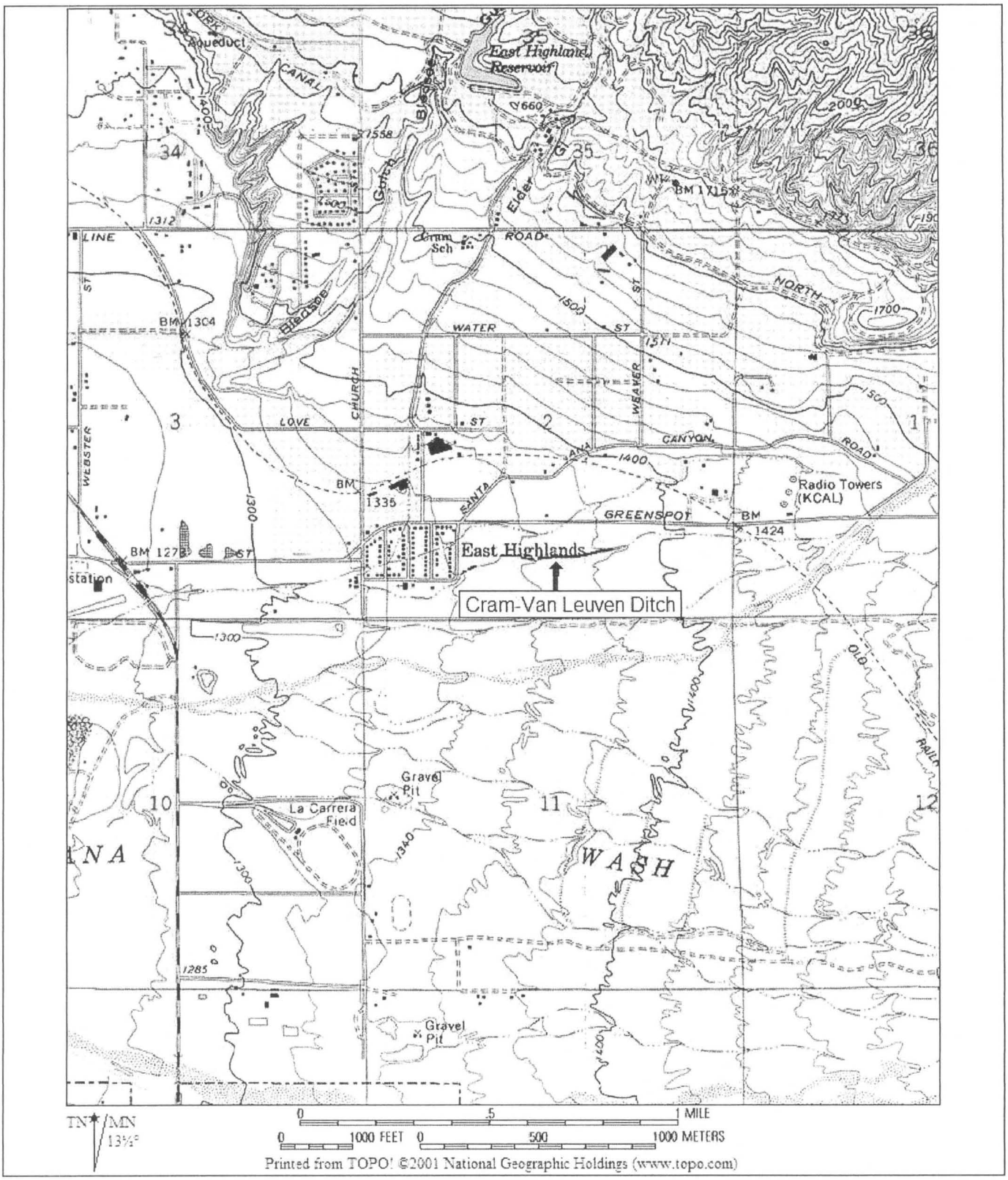
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #: P36-006848
HRI#
Trinomial: CA-SBR-6848H **(UPDATE)**

*Resource Name or Number (Assigned by recorder): Cram-Van Leuven Ditch

*Map Name: Redlands, Calif. *Scale: 1:24,000 *Date of Map: 1996



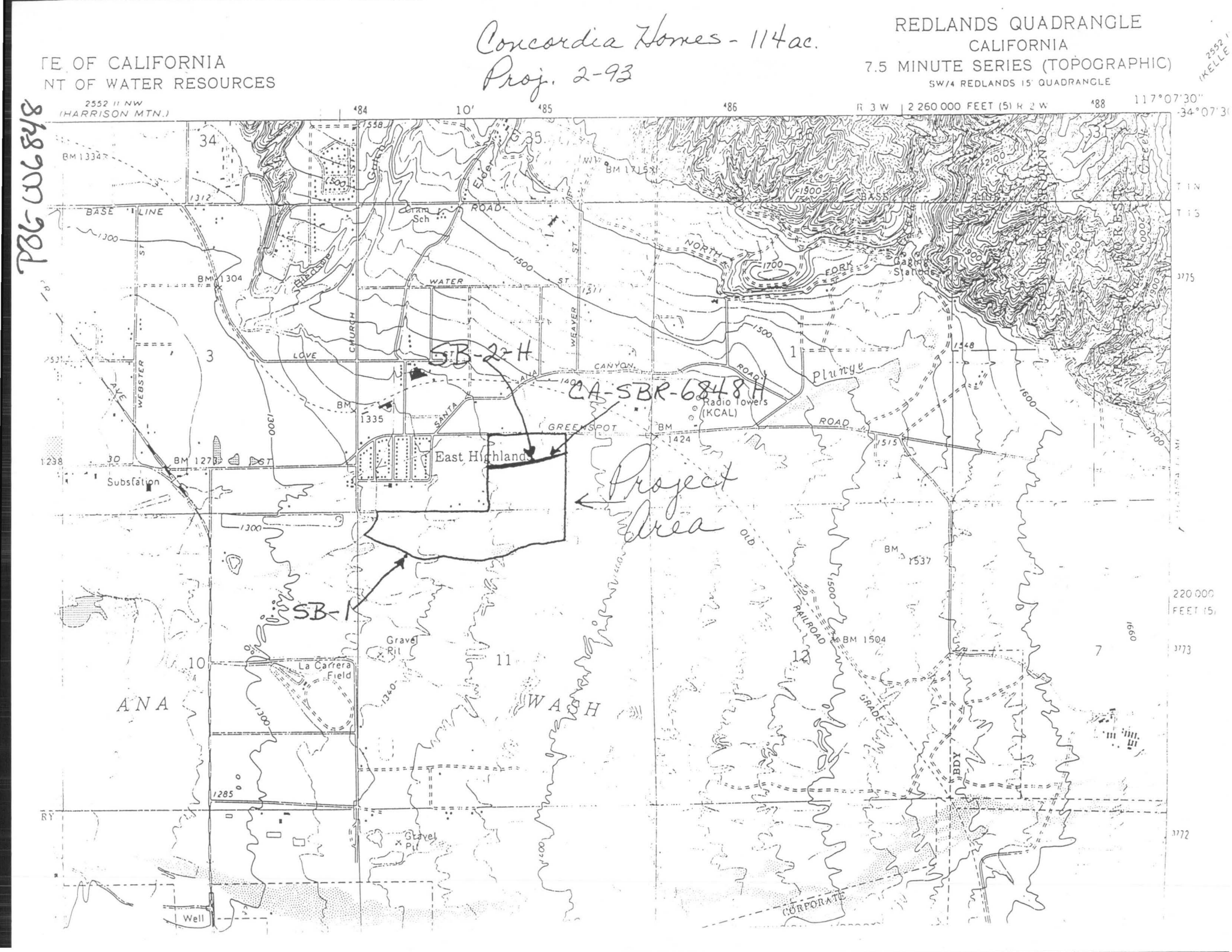
* Required information

Concordia Homes - 114 ac.
Proj. 2-93

P86-006848

TE OF CALIFORNIA
NT OF WATER RESOURCES

REDLANDS QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 REDLANDS 15' QUADRANGLE



P36-006848

1063

State of California - The Resources Agency

DEPARTMENT OF PARKS AND RECREATION

ARCHAEOLOGICAL SITE RECORD

UPDATE

Permanent Trinomial: CA-SBR-6848H.

Temporary Number: _____.

Additional Designation: _____.

Agency Designation: _____.

1. County: San Bernardino.
2. USGS Quad: Redlands (7.5') 1967 (15') _____ Photorevised 1988.
3. UTM Coordinates: Zone 11 / 485180 Easting / 3774040 Northing Eastern Boundary/ 484720 /Easting / 3773940 Northing West Boundary( ).
4. Township: 1S Range: 3W; SE of the SW to SW of the SE 1/4s of Section 2 .
   Base (Mer) SB ( ).
5. Map Coordinates: 7.4 to 7.8 mm S, 34.5 to 32.5 mm E (from NW corner of map)
6. Elevation: 1360-1380 ft .
7. Location: Ditch is located approximately 200 feet south of Greenspot Road and exits approximately 600 feet south of Greenspot Road along 1700 feet of project area, and approximately four and one-half miles east of Highway 30 in the East Highlands area .
8. Prehistoric ___ Historic XX Protohistoric ____ .
9. Site Description: This irrigation ditch was originally excavated in 1858 and was named the Cram-Van Leuven Ditch after the two families responsible for providing the first i rrigation waters to the East Highlands area. .
10. Area: 16-30 m (N/S width) x 518 m (E/W length) ____ m^2 .
    Method of Determination: tape .
11. Depth: 1.3 to 3.1 m .
    Method of Determination: tape.
12. Features: The ditch itself is the only feature.
13. Artifacts: N/A .
14. Non-Artifactual Constituents: N/A .
15. Date Updated: March 10, 1993 .
16. Updated By: Jim Eighmey, Ivan Strudwick, Roxana Phillips, Petei McHenry, John Boughton, and Russell Collett .
17. Affiliation and Address: Gallegos and Associates, 2227 Faraday, Suite C, Carlsbad, CA 92008.
32. References: Cultural Resource Survey Report for the Concordia Homes Project, County of San Bernardino, California, Gallegos & Associates, March 1993.
33. Name of Project: Concordia Homes Cultural Resource Survey .
36. Photos: Yes Taken By: Petei McHenry.
37. Photo Accession Number: 2-93 On File At: Gallegos & Associates

PBL 006848

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

FEATURE RECORD

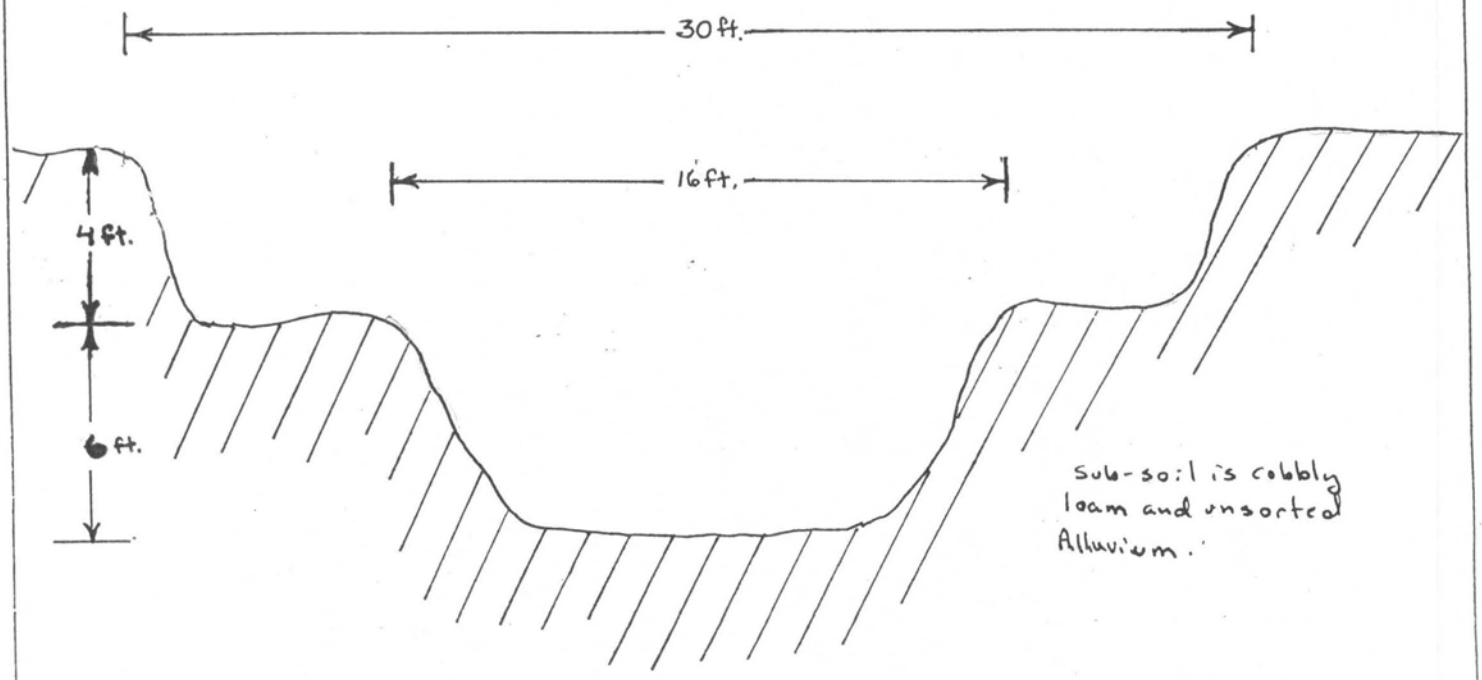
Permanent Trinomial: _____ / _____ (mo. / yr.)

Temporary Number: CA-SBR-6848 H

Page _____ of _____.

Agency Designation: _____

Type of Feature: Irrigation Ditch circa 1860's



Cross-section of Cram-Vanheuven Ditch

Construction Notes: The ditch is unlined and somewhat irregular in cross-section. The path of the ditch is not linear, but appears to move irregularly from the North-east to the south-west accross the project area. A series of trash dumps, some dating to the 1800's, are located nearby. No formal camps or dumps that can be directly tied to the construction of the ditch were noted. No dams or diversion structures were found within this section.

P36-006848

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE RECORD

Permanent Trinomial: CA-SBR-6848H Supplement XX

Temporary Number:

Page 1 of 3

Agency Designation:

1. County: San Bernardino

2. USGS Quad: Redlands (7.5') XXXXXX (15') Photorevised 1988

3. UTM Coordinates: Zone 11 / 486120 Easting / 3774100 (TO EASTERN END) Northing ( )

4. Township 1S Range 3W ---- ¼ of ---- ¼ of N½ ¼ of SW ¼ of Section 1 Base (Mer.) SBBM ( )

5. Map Coordinates: 73 (TO EASTERN END) mmS 376 mmE (from NW corner of map) 6. Elevation 1424'

7. Location: This portion of the canal is located south of Greenspot Road, west of Plunge Creek and East of Weaver Street; identified on the USGS map as a blue line water course. ( )

8. Prehistoric ____ Historic XXXXX Protohistoric ____ 9. Site Description: Irrigation Canal tentatively identified as the Cram & Van Leuven Ditch (ca. 1858), though there is a possibility that this designation is erroneous. Maps for the Cram and Van Leuven Ditch indicate that it was north of Greenspot Road in this area. ( )

10. Area: 4m m(length)x ++ m(width) ____ m^2. Method of Determination: visual inspection ( )

11. Depth: varies cm Method of Determination: visual inspection ( )

12. Features: singel canal identified approximately 300 meters west of Plunge Creek (eastern extents destroyed) and consisting of a single elongated depression winding through the N½ of SW¼ (Section 1) ( )

13. Artifacts: modern materials impacting eastern portion of feature; other materials possibly buried. ( )

14. Non-Artifactual Constitutients: N.A. ( )

15. Date Recorded: May 29, 1992 16. Recorded By: Jeanette A. McKenna ( )

17. Affiliation and Address: McKenna et al., Whittier CA 90601 (310) 696-3852 ( )

DPR 422A (REV. 8/84)

P36-006848

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ARCHEOLOGICAL SITE RECORD
DPD-OEA-003B (01/90)

Permanent Trinomial: CA-SBR-6848H / June 1992 (mo / yr)

Temporary Number: _____

Agency Designation: _____

18. Human Remains: none observed ( )

19. Site Integrity: portions impacted; portions destroyed; portions intact ( )

20. Nearest Water (type, distance and direction): Plunge Creek immediately to east

21. Largest Body of Water within 1 km (type, distance and direction): N.A. ( )

22. Vegetation Community (site vicinity): coastal scrub {Plant List ( )} ( )

23. Vegetation Community (on site): coastal scrub w/some intrusive trees {Plant List ( )} ( )

References for above: Munz 1977 ( )

24. Site Soil: sansy loam/cobbles ( ) 25. Surrounding Soil: sany loam/cobbles ( )

26. Geology: foothills ( ) 27. Landform: drainage floodplain ( )

28. Slope: slight to southwest ( ) 29. Exposure: open ( )

30. Landowner(s) (and/or tenants) and Address: unknown ( )

31. Remarks: Site was described by Greenwood & Associates as C & VL Ditch, but may be a privately developed ditch ... additional research recommended. ( )

32. References: McKenna 1992 ( )

33. Name of Project: Greenspot Road Pipeline Project (Water District) ( )

34. Type of Investigation: Phase I survey and archaeological monitoring program

35. Site Accession Number: N.A. Curated At: N.A. ( )

36. Photos: on file, McKenna et al. Taken By: Jeanette A. McKenna ( )

37. Photo Accession Number: N.A. On File At: McKenna et al., Whittier CA ( )

P36-006848

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE LOCATION MAP

Page 3 of 3.

Permanent Trinomial: CA-SBR-6848H / June 1992 (mo. / yr.)

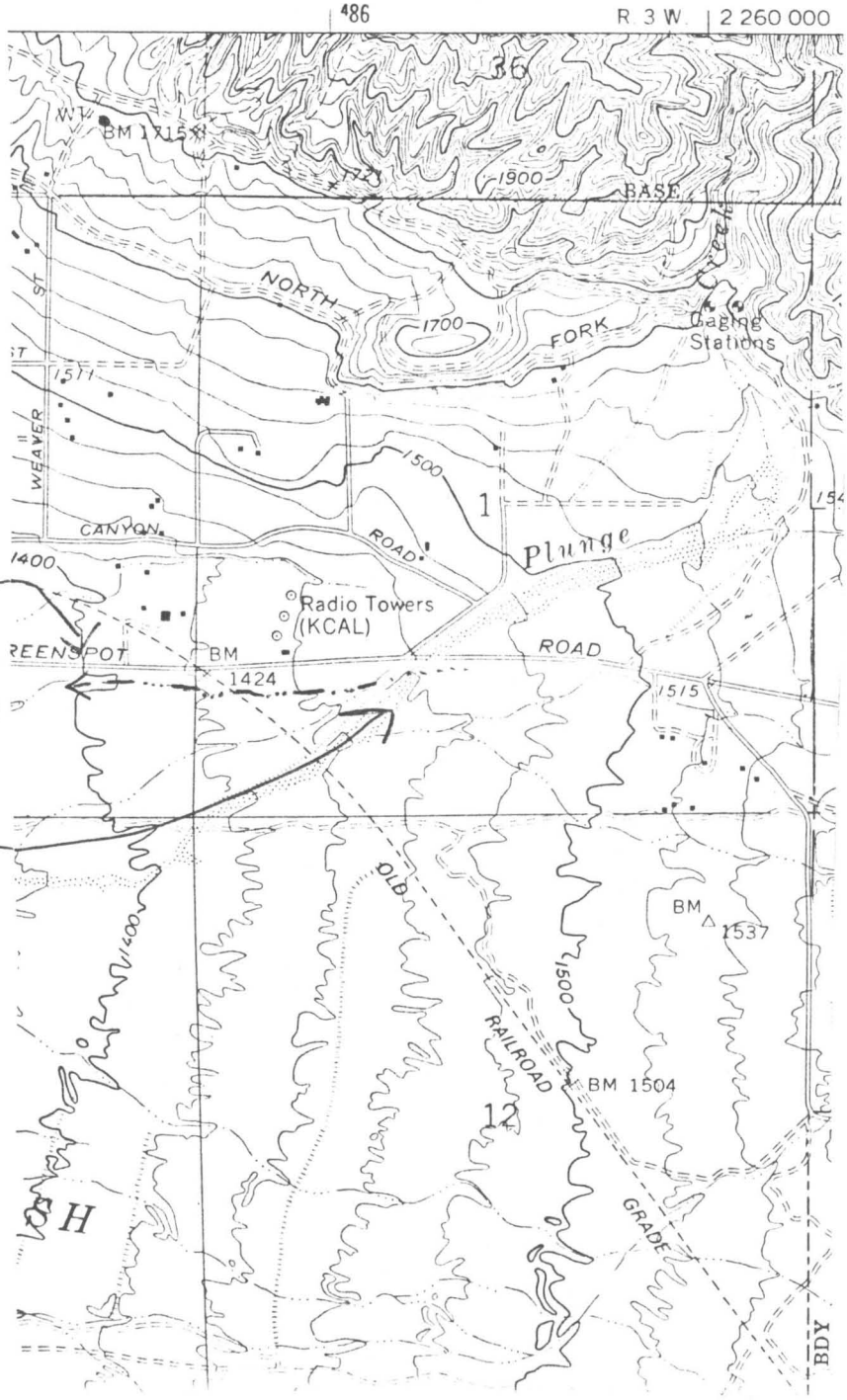
Temporary Number: _____

Agency Designation: _____

REDLAN

7.5 MINUTE

SW/4 R



CANAL LIKELY CONTINUES TO WEST. EASTERN PORTIONS DISTURBED OR DESTROYED

P36-006848

ARCHAEOLOGICAL SITE RECORD

PAGE: 1 OF 7 PERMANENT TRINOMIAL: CA-SBR-6848H
DATE OF ORIGINAL RECORD: N/A TEMPORARY NUMBER: R-FEH #2
DATE OF THIS FORM: 12/17/90 AGENCY DESIGNATION: PSBR-20H
1. COUNTY: San Bernardino
2. USGS QUAD: Redlands 7.5' 1967 REVISED: 1988
3. UTM COORDINATES: ZONE 11 483880 m Easting; 3773980 m Northing
4. TOWNSHIP 1S RANGE 3W, - , - , SE 1/4, SE 1/4, of Section 3 BASE MER. SBM
5. MAP COORDINATES: 77 mm S 287 mm E
6. ELEVATION: 1300 ft.

7. LOCATION: From Interstate 10 in Redlands, take the Orange Street exit north for 3 miles, turn right on 5th Street and continue for 0.4 mile. Site begins across from the east end of the Village Lakes housing tract, approximately 5 miles south of 5th Street and continues east to Church Street.

8. PREHISTORIC HISTORIC X PROTOHISTORIC

9. SITE DESCRIPTION: Plotted location of Cram and Van Leuven Ditch (ca. 1858). Irrigation complex with associated earthen ditches. Site contains an east/west feeder flume, two north/south earthen canals, one north/south concrete canal, a weir, a portion of a concrete covered flume, and a portion of a southwest/northeast earthen ditch (PSBR-20H).

10. AREA: 600 m (length) x m (width); m^2
Method: Odometer and tape.

11. DEPTH: METHOD: N/A

12. FEATURES: #1) An east/west linear, 0.3 mile long, U-shaped feeder flume on the south side of 5th Street. #1A) From the western north/south canal and extending approximately 40 meters (X)

13. ARTIFACTS: Six sun-colored amethyst glass fragments.

14. NON-ARTIFACTUAL CONSTITUENTS: Pepper trees to the south and east. Citrus orchard to the north.

15. DATE OF ORIGINAL RECORD: N/A DATE OF THIS FORM: 12/17/90

16. RECORDED BY: Gwendolyn Romani, Genevieve Head, Neal Kaptain, and Tricia Webb.

17. AFFILIATION: Greenwood and Associates, 725 Jacon Way,
725 Jacon Way, Pacific Palisades, CA 90272
(213) 454-3091

P36006848

ARCHAEOLOGICAL SITE RECORD

PAGE:2 OF 7 PERMANENT TRINOMIAL: SBR-6848H
DATE OF ORIGINAL RECORD: N/A TEMPORARY NUMBER: R-FEH #2 and PSBR-20H
DATE OF THIS FORM: 12/17/90 AGENCY DESIGNATION:

18. **HUMAN REMAINS:** None observed.

19. **SITE INTEGRITY:** Flume is largely intact, but filled in. Most of PSBR-20H has been destroyed. Other sections active as needed.

20. **NEAREST WATER:** Santa Ana River approximately 500 m. south.

21. **VEGETATION COMMUNITY (SITE VICINITY):** Citrus orchard to north.

22. **VEGETATION COMMUNITY (ON SITE):** Ruderal (old orchard removed).

REFERENCES FOR ABOVE: N/A

23. **SITE SOIL:** Sand and gravel loam.

24. **SURROUNDING SOIL:** Same as 23

25. **GEOLOGY:** Granitic.

26. **LANDFORM:** River terrace.

27. **SLOPE:** 0 28. **EXPOSURE:** Open.

29. **LANDOWNERS(S), (TENANTS), ADDRESS:** East Highland Ranch (lot is a future commercial building site).

30. **REMARKS:** There is a 1950-60's dump containing household materials, furniture, pipes, etc. south of site near west and south end of Church Street.

32. **REFERENCES:**-

33. **NAME OF PROJECT:** Metropolitan Water District Inland Feeder Cultural Resource Investigation.

34. **TYPE OF INVESTIGATION:** Preliminary surface reconnaissance

35. **SITE ACCESSION NO.:** **CURATED AT:**

36. **PHOTOS:** Overviews, B & W prints. **TAKEN BY:** Gwen Romani and Neal Kaptain.

37. **PHOTO ACCESSION NO.** N/A **ON FILE AT:** Greenwood and Associates

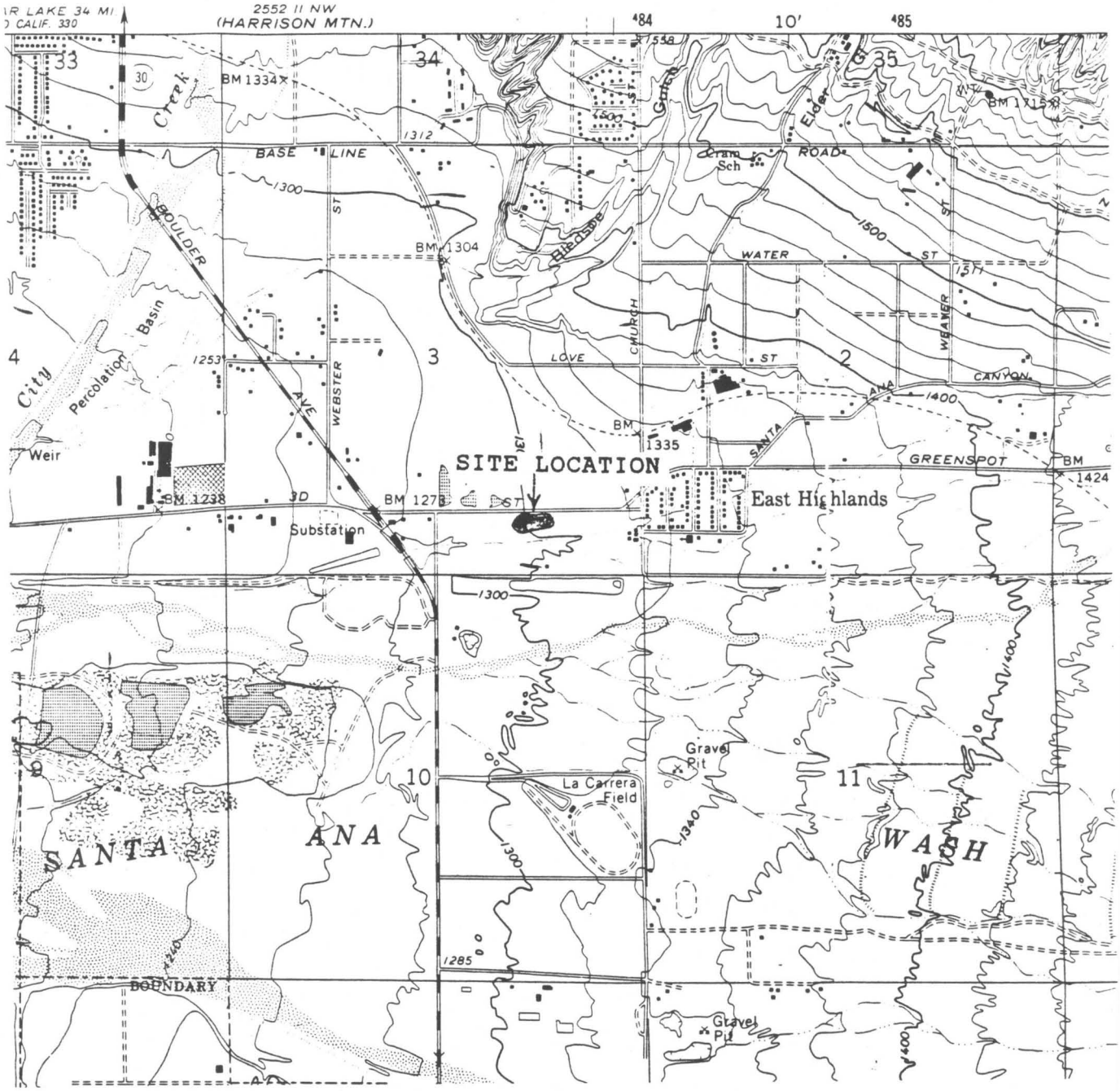
P36-006848

ARCHAEOLOGICAL SITE LOCATION MAP

PAGE: 3 OF 7
DATE OF ORIGINAL RECORD:

DATE OF THIS FORM: 12/17/90
U.S.G.S. 7.5' QUADRANGLE: Redlands

PERMANENT TRINOMIAL: SBR-6848H
TEMPORARY NUMBER: R-FEH #2
and PSBR-20H
AGENCY DESIGNATION:



P36-006848

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

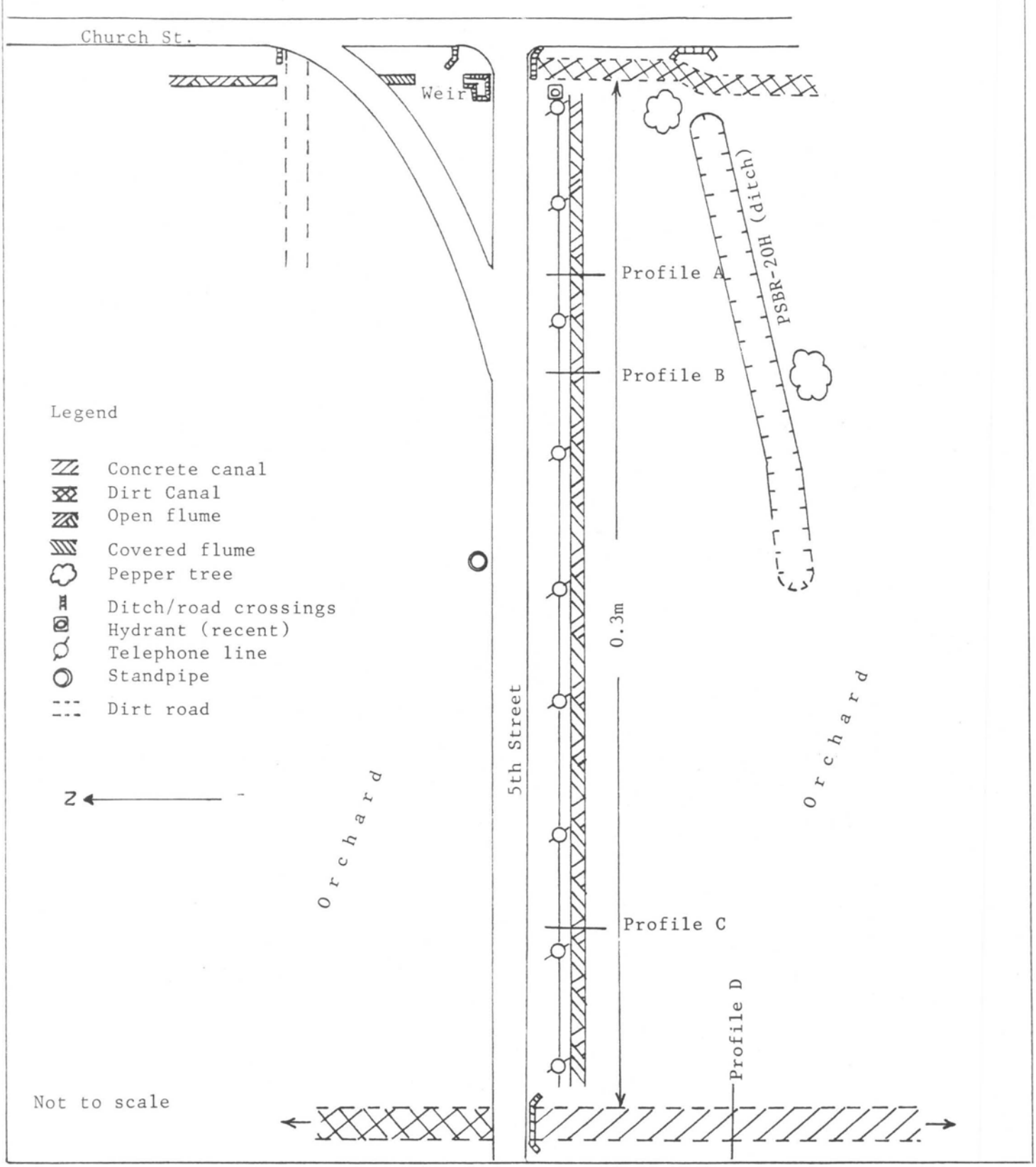
ARCHEOLOGICAL SITE MAP

Permanent Trinomial: SBR-6848H / ____ (mo. / yr.)

Temporary Number: Redlands FEH #2

Page 4 of 7.

Agency Designation: ____



DPR 422F (Rev. 8/82)

P36-006848

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE MAP

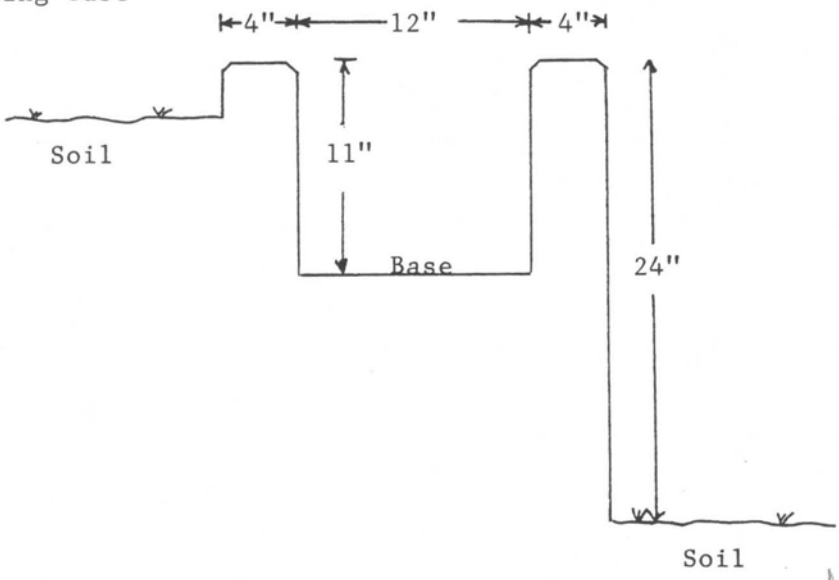
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Agency Designation: ____

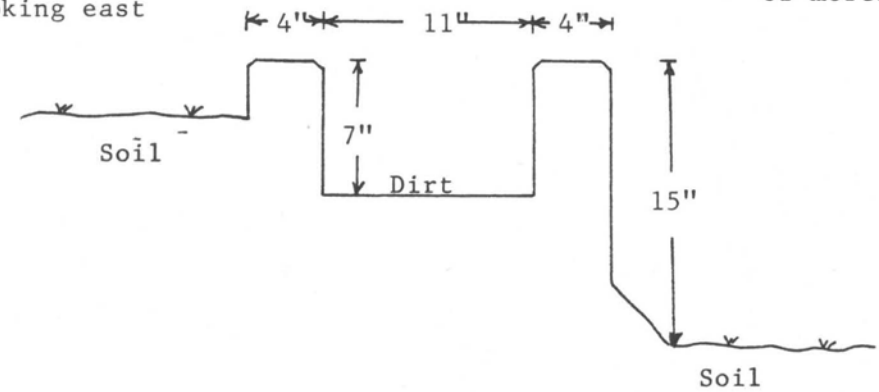
Profile A
Looking east





Poured concrete flume,
used to irrigate
adjacent field to the south.
South wall has small metal gates
every meter for water diversion.
Westernmost 40m is constructed
of mortared granite blocks.

Profile B
Looking east



P36-006848

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE MAP

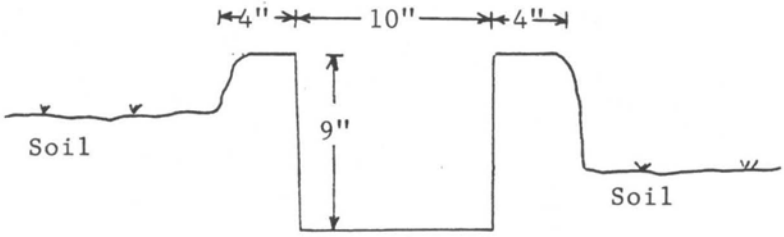
Page 6 of 7 .

Permanent Trinomial: SBR-6848H / _____ (mo. / yr.)

Temporary Number: Redlands - FEH - #2

Agency Designation: _____

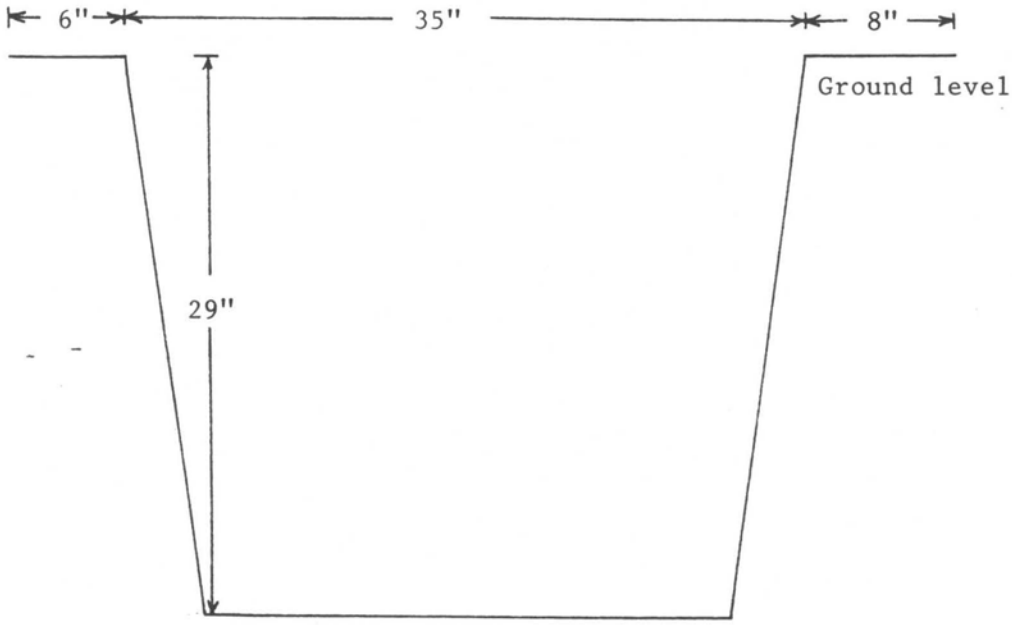
Profile C
Looking East





Flume made of mortared granite stones with metal irrigation gates every 5'.

Profile D
Looking East



P36-006848

ARCHAEOLOGICAL SITE RECORD - CONTINUATION

PAGE: 7 OF 7 PERMANENT TRINOMIAL: SBR-6848H

DATE OF ORIGINAL RECORD: TEMPORARY NUMBER: R-FEH #2 and PSBR-20H

DATE OF THIS FORM: 12/17/90 AGENCY DESIGNATION:

CONTINUATION

ITEM NO.

(12.) east, the flume is a split cobble with concrete base feeder flume (interior 10" wide), with south facing metal gates every 1.5 meters (see Profile C). #1B) is the remaining eastern portion of the flume which is constructed of poured concrete (interior 11-12") with south facing flow regulator gates at 1 meter intervals (see Profiles A & B). Most of the flume has been filled in by dirt and adjacent outside soil levels are high. The east and west end have either been covered by dirt or destroyed.

#2) Approximately 30 meters west of flume is a small (top interior 35") north/south concrete canal that extends from 5th Street south for approximately 100 meters (see Profile D).

#3) North of Canal #2 is a concrete culvert that passes under 5th Street and continues into a 3-4' wide x 1-2' deep earthen ditch that continues north for approximately 1/4 mile and drains the existing easterly citrus orchard to the south.

#4) A portion of PSBR-20H (Cram and Van Leuven Ditch - ca. 1858). It has been partially filled in and destroyed to the west and east by either the orchard or removal of the orchard (south of flume in vacant lot).

#5) At eastern end of flume is a somewhat V-shaped dirt canal (approximately 3' deep and 7' across at top) that runs north/south with a dogleg along the west side of and to the end of Church Street.

#6) North of #5 on an island between 5th Street and Church Street are two concrete weirs (one fenced, the other covered by grating).

#7) North of the weir is a covered flume that continues under 5th Street to #8.

#8) An open flume west of Church Street.

#9) A two lobed concrete standpipe north of 5th Street.

REPORT 76-11.16
SBR-6848 H
PB-20 11
PB-006848

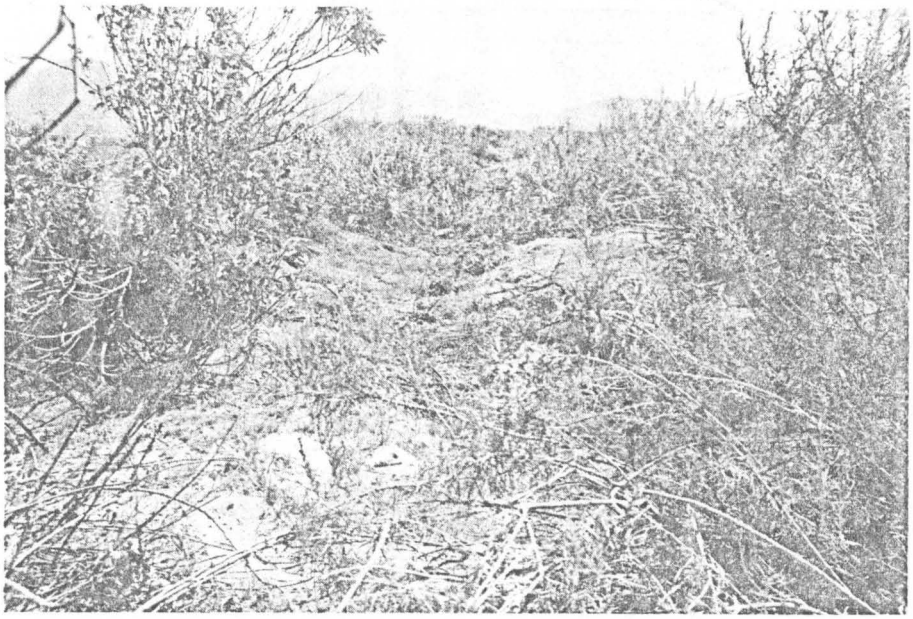


FIGURE 5.--Ditch built by Bishop Nathan C. Tenney in 1856; used as part of the Berry Roberts ditch in 1868.

Still another irrigation development in the general area took place at about this time. Lewis F. Cram and his brothers and Frederick Van Leuven and his sons, who had irrigated land serviced by the Mill Creek zanja within the Mormon-owned San Bernardino Rancho, acquired land lying near East Highlands, east of City Creek Wash. In 1858 they built an irrigation ditch from the Santa Ana River to their newly acquired land (Beattie, 1951, p. 3). The head of the ditch was at the mouth of the canyon, upstream from the original headworks of the North Fork and Timber ditches, and the ditch itself extended to City Creek, as shown in figure 6. This new diversion reduced the river flow at the headworks of the North Fork and Timber ditches, and at times there was insufficient water carried in those ditches to satisfy requirements.

That situation continued until August 1860, when a suit was filed against owners of the Cram and Van Leuven ditch by the majority of the Timber ditch owners (Beattie, 1951, p. 4). The suit did not go to trial but was settled by a compromise court judgment on June 18, 1861. That judgment gave owners of the Cram and Van Leuven ditch a right to one-sixth of the river flow at the mouth of the canyon (Hall, 1888, p. 147). It was the first water right in the Santa Ana River basin to be adjudicated by a court.

The next event of significance with respect to water development in the San Bernardino Valley was the calamitous flood of 1862. That flood had a major effect on the channel of the Santa Ana River. Prior to the flood the river, upstream from what is now Redlands, was a narrow meandering stream lined with alder, willow, sycamore, and cottonwood trees (Beattie, 1951, p. 5). The flood washed out the trees and deposited sand, gravel, and

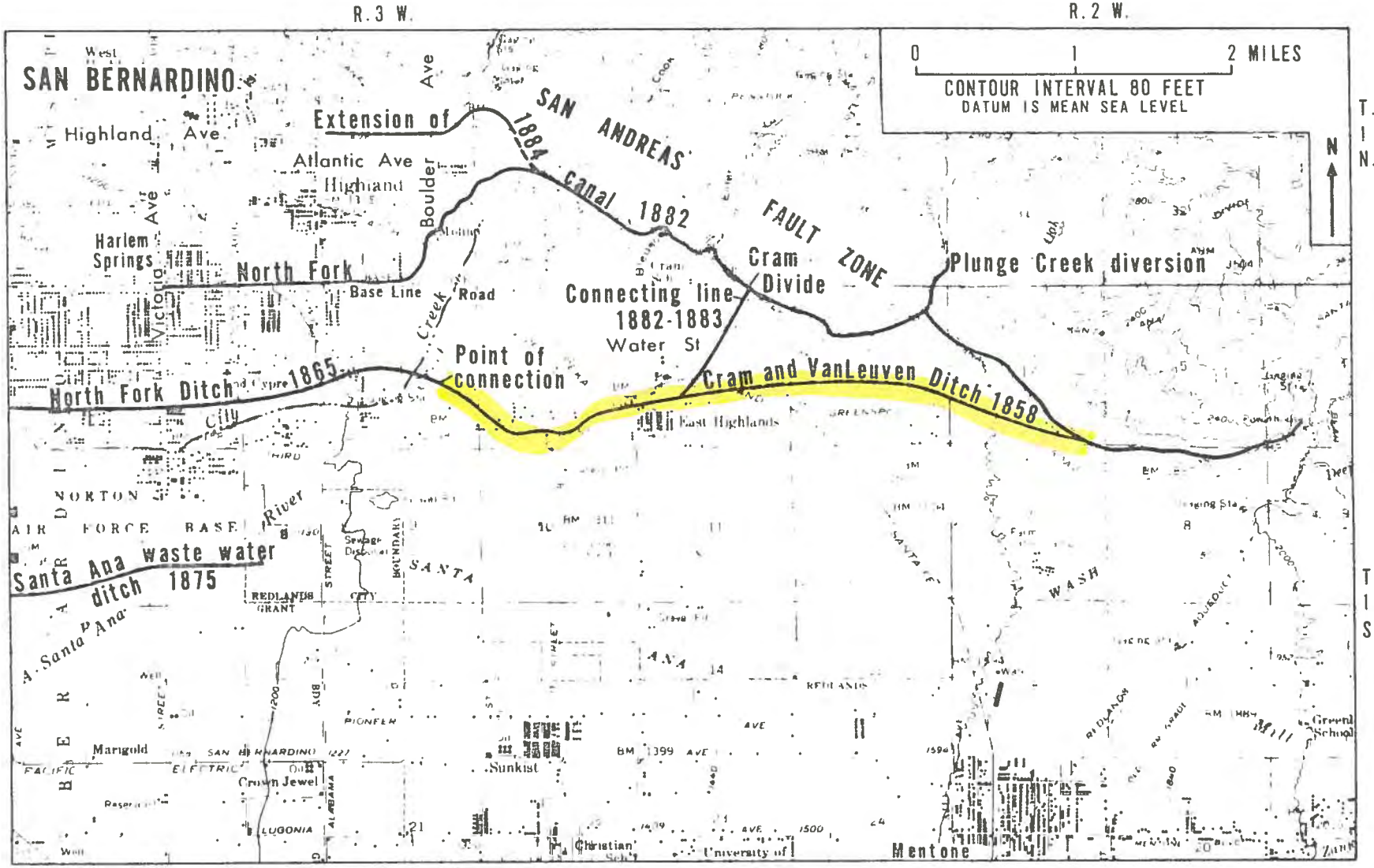


FIGURE 6.--Cram and Van Leuven ditch and North Fork Canal.

256-00698

PB6-00 6848

boulders on the riverbed and on the adjacent inundated area. After the flood the river no longer followed a well-defined course, but instead ran in several channels below the mouth of the canyon, upstream from the common point of diversion for the North Fork and Timber ditches. The seepage loss through the beds of the new channels was sufficiently great to create a serious water deficiency at the heading of the ditches. Because of this condition the North Fork ditch was extended, as will be explained shortly, to a new heading nearer the mouth of the canyon. The location of the Timber ditch heading remained unchanged.

With regard to the acreage irrigated by the North Fork and Timber ditches, no official records were kept until 1864, when the newly created and elected San Bernardino County Water Commissioners recorded water rights, applications for ditch construction, and irrigated acreage. However, Hall (1888, p. 45) noted that water from the Timber ditch irrigated 50 acres in 1857. Records of the water commissioners showed that irrigated acreage in the Timber Settlement had increased to 242 acres by 1864, and to 369 acres by 1872 (Beattie, 1951, p. 2). The acreage irrigated in 1872 was probably the maximum acreage ever serviced by the Timber ditch, because after 1872 a gradual transfer of Timber ditch water rights to other localities occurred. No comparative figures for the North Fork ditch were recorded.

It was mentioned earlier that the owners of North Fork ditch had decided, after the flood of 1862, to extend their ditch upstream to a new heading at the mouth of the canyon. Furthermore, they realized that the cheapest way to accomplish that change would be through use of the existing Cram and Van Leuven ditch, which headed at the mouth of the canyon. Accordingly, in 1865, they requested permission of the owners of the Cram and Van Leuven ditch to make use of that ditch for transporting North Fork water to a connection to be built between the North Fork and Cram and Van Leuven ditches. In return the owners of the North Fork ditch offered to enlarge the Cram and Van Leuven ditch and share operating expenses. The Cram and Van Leuven ditch owners granted the request because of the advantage of having a larger volume of water flowing in the ditch. The ditch was enlarged, the connection to North Fork ditch shown in figure 6 was completed, and from that time on North Fork and Cram and Van Leuven water has been diverted through a common facility at the mouth of the canyon. As a result of this development, the Cram and Van Leuven ditch upstream from the connection with North Fork ditch, also became known as North Fork ditch.

Although the adjudication of 1861 (p. 14) gave the Cram and Van Leuven ditch owners a right to one-sixth of the water of the Santa Ana River at the mouth of the canyon, the respective rights of water diverted by the owners of the Timber and North Fork ditches were never formally established. Testimony in that litigation indicated an informal recognition that the Timber ditch was entitled to two-thirds and the North Fork ditch to one-third, of the remaining five-sixths of the water in the river. This division of flow between the Timber and North Fork ditches, in the ratio of 2:1, was approved by the water commissioners, and they issued an order to that effect on May 29, 1872 (Beattie, 1951, p. 4).

P36-006848

The owners of the North Fork ditch were dissatisfied with the commission's order; they claimed that the combined entitlement of the North Fork and Timber ditches should be divided equally between the two ditches. Furthermore, they were interested in maintaining their rights to use of the water, whereas the owners of Timber ditch were gradually selling their water rights to landowners on the south side of the Santa Ana River. The North Fork ditch owners pressed their case and on June 12, 1879, the two groups agreed to an equal division of water between the two ditches (Beattie, 1951, p. 4). That agreement was approved by the water commissioners. By this time, however, all Timber ditch water rights had been transferred to the Berry Roberts ditch (p. 22-25) and the Timber ditch was abandoned--probably about 1878 (Hall, 1888, p. 162-163).

With each passing year additional agricultural development took place in the San Bernardino Valley. In 1880 R. J. Cunningham, representing a number of Riverside investors, purchased a considerable acreage and North Fork water rights along City Creek, south of Harlem Springs (Beattie, 1951, p. 19). John Stone, one of Cunningham's clients, purchased rights to 43 hours of North Fork water through Cunningham and became the principal owner of the North Fork ditch. The land between Base Line Road and City Creek was planted to deciduous fruits and other crops, and by the second year most of the land was under cultivation.

A year earlier, in 1879, E. G. Judson and Frank E. Brown had become interested in the potential of the benchland above the Cram and Van Leuven and North Fork ditches for raising oranges, a crop with more value than the vegetables grown on the lowland (Beattie, 1951, p. 16). They purchased the claims of settlers living near Plunge Creek in sec. 35, T. 1 N., R. 3 W., and secured options on other parcels of land in the vicinity of sec. 35. To bring water to the benchland, Judson and Brown met several times with owners of the two ditches and offered to build a new high-line ditch for $1,000. The North Fork ditch owners opposed the plan, but by 1880, several owners of land on the bench had purchased lowland water rights and requested transfer of those rights to the benchland (Hall, 1888, p. 148). Judson and Brown and the owners of North Fork ditch rights signed an agreement, in the spring of 1881, for the construction of a high-line ditch to serve the benchlands.

North Fork Canal

Construction of the high-line ditch, known as the North Fork Canal, began in the autumn of 1881, and it was completed and in operation in April of the following year (Hall, 1888, p. 148). The North Fork Canal left the original Cram and Van Leuven ditch a short distance west of the east line of sec. 6, T. 1 S., R. 2 W., and followed the course shown in figure 6 to City Creek. To reach the area along Base Line Road, the canal crossed City Creek in a flume, then turned south, probably following along the route of the old City Creek-Base Line ditch of 1865. This route followed along Boulder Avenue to Base Line Road, then west to Victoria Avenue, as described later in the section of this report titled, "City Creek Water Company" (p. 107). Part of this route may be that followed by the present-day Snake ditch (fig. 41) that is

From Report 88-3.5

SBR-6848H
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P86-006848

2:

IRRIGATION SYSTEMS FOR AGRICULTURAL LAND ON THE NORTH SIDE OF THE SANTA ANA RIVER

Cram and Van Leuven Ditch (1858)

The earliest of the irrigation systems emerging from Santa Ana Canyon was the Cram and Van Leuven Ditch. Prior to the digging of this ditch by Lewis Cram and his brothers and Frederick Van Leuven and his sons, all other ditches had their intake in the Santa Ana River, well below the mouth of the Upper Santa Ana River, outside the scope of this study (Figure 1). This was the first ditch to begin at the Santa Ana Canyon mouth, thereby reducing water lost across the alluvial fan due to percolation and evaporation. The ditch led from the canyon to Cram and Van Leuven lands at the base of East Highlands Mesa and continued west to City Creek wash in San Bernardino (Beattie 1951:3). Conflicts over water rights developed in August 1860 with a lawsuit being filed by Timber and North Fork Ditch owners (irrigation ditches located eight miles below Upper Santa Ana Canyon mouth). The case was settled in 1861 with the recognition of the right of Cram and Van Leuven to one-sixth of the flow of the river at the canyon mouth. This decision represented the first water rights dispute in the Upper Santa Ana River to be adjudicated by the courts (Beattie 1951:4).

The flood of 1862 reworked the river channel to such an extent that both downstream ditches, especially North Fork, were left largely useless. In 1865, the North Fork shareholders petitioned the owners of the Cram and Van Leuven ditch for permission to enlarge the Cram and Van Leuven ditch to carry the North Fork water (Beattie 1951:6). Consent was given for this arrangement as it was distinctly advantageous to both groups. The North Fork users would lose less water through riverbed seepage and Cram and Van Leuven water right holders would gain from the greater water flow through the joint canal. The ditch was enlarged and lengthened to reach North Fork lands. Nothing of the ditch remains today.

North Fork Ditch (1885-Present): SAC-33

By the early 1880s, water shareholders in the Cram and Van Leuven and North Fork ditches were limited to irrigating relatively low quality land on the edge of the Santa Ana River. The construction of a new canal at a higher elevation (highline) along the rugged base of the San Bernardino Mountains would maximize the potential acres which could receive irrigation water. A new canal would allow water to be carried onto the "benchlands" or mesas where oranges, a high value crop, could be grown. The North Fork Ditch represents the capital-intensive projects which were undertaken during the real estate boom of the 1880s.

From Report 81-5.7
~~P5BR-20-H~~
~~P1063-5-H~~
SBR-6848H
P36-006848

aboriginal society had been disrupted by missionization and the resultant changes in land tenure to such an extent that it never really returned to its former state. Following a period of Mexican cattle ranches in the 1840's and the development of the valley by the Mormons in the 1850's, the beginnings of American agricultural development came, including the citrus industry and the development of irrigation systems, two areas of historical interest which are directly tied to the cultural resources of the East Highland Ranch area.

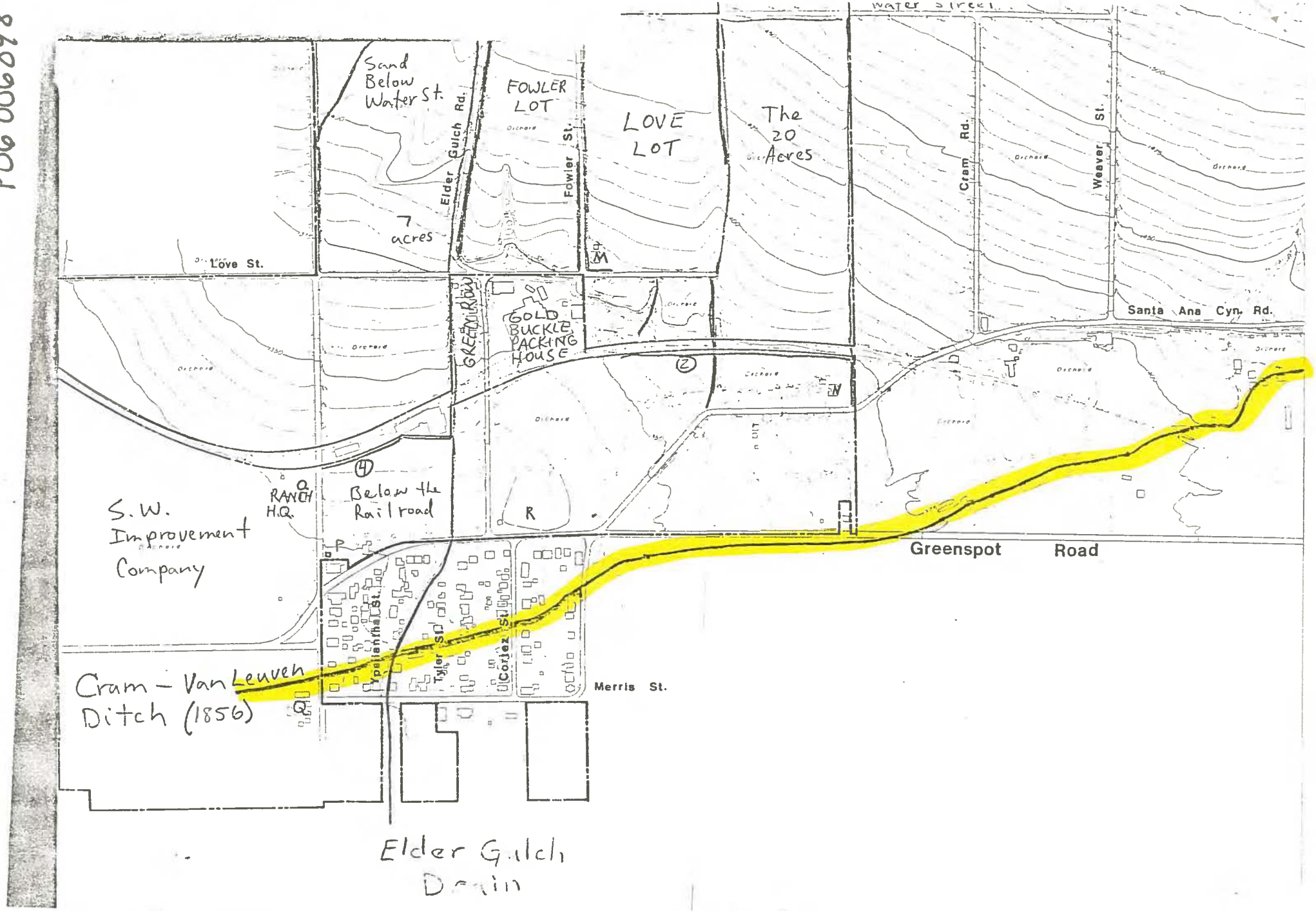
P1063-5-H

The first irrigation ditch to be built through the study area was known as the Cram-Van Leuven Ditch, since it was built by members of those two pioneer families to bring water to their lands from the Santa Ana River. This ditch was first dug in 1858, and ran from the mouth of the Santa Ana Canyon to their lands at the base of what is today known as the East Highlands bench (Beattie 1951:3). The Cram-Van Leuven Ditch crossed the southwestern portion of the project site, following a route south of the Santa Ana Canyon Road and passing through the present townsite of East Highlands before ending east of the City Creek Wash, approximately on what is now East Third Street.

There had earlier, in 1856, been a ditch called the North Fork Ditch which was downstream 8 miles from the Cram-Van Leuven Ditch, and which directed water from the river to a community called the City Creek Settlement, since it was located on the bank of City Creek, approximately on today's Sixth Street between Waterman and Sterling Avenues. When the river flooded in 1862, it ruined the intake of that ditch and so the people of the City Creek Settlement asked the Crams and Van Leuvens for permission to enlarge their ditch and extend it to serve City Creek area (Beattie 1951:6, Wright 1981).

In 1879, Redlands developers Judson and Brown became interested in the

P36-006848


Water Street
Sand Below Water St.
Elder Gulch Rd.
FOWLER LOT
Fowler St.
LOVE LOT
The 20 Acres
Cram Rd.
Weaver St.
7 acres
Love St.
GREEN RIBBON
GOLD BUCKLE PACKING HOUSE
Santa Ana Cyn. Rd.
RANCH H.Q.
Below the Railroad
S.W. Improvement Company
Greenspot Road
Tyler St.
Cortez St.
Merris St.
Cram – Van Leuven Ditch (1856)
Elder Gulch Drain

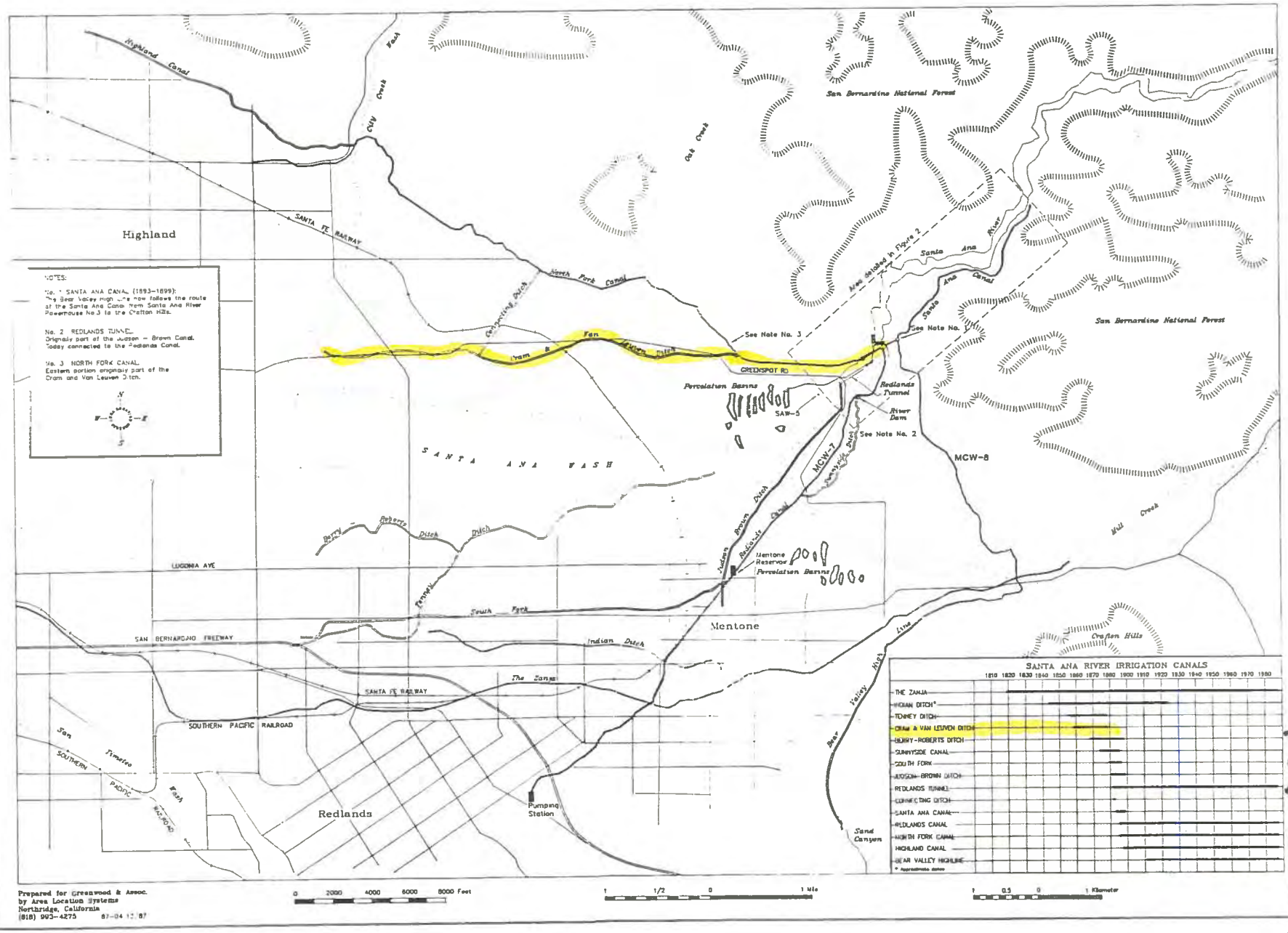
From REPORT 88-3.5

Figure 1

Historical Development of

SANTA ANA CANYON IRRIGATION PROJECTS

San Bernardino County, California



Prepared for Greenwood & Assoc.
by Area Location Systems
Northridge, California
(818) 993-4275 87-04-15-87

From REPORT 88-

P88-20018

P31-00818

Recorded by Daniel Ballester Date December 10, 2019 Continuation √ Update
Form Prepared by Bai "Tom" Tang Date January 29, 2019
Affiliation: CRM TECH, Colton Project No: CRM TECH 3553

On December 10, 2019, a systematic archaeological field survey was conducted on the entire length of the open channel from Victoria Avenue on the east to the confluence with the Warm Creek Channel on the west. The total length of the channel surveyed and recorded is approximately three miles. The easternmost one mile of the channel is lined with concrete, including both of the segments previously recorded into the inventory, as is the westernmost 600 feet. The rest of the channel remains an unlined earthen channel, sometimes with fencing and netting along the course.

A total of seven minor concrete bridges or culverts of historical age (or possibly of historical age) along this segment of the City Creek Channel were recorded as associated features of the site. All of the bridges and culverts are of standard design and construction, and none of them demonstrate any notable characters in architecture or engineering. These seven bridges or culverts and their approximate construction dates are listed below:

Third Street crossing near Sterling Avenue, pre-1959*
Del Rosa Avenue crossing, pre-1959*
Del Rosa Drive crossing, 1968-1980*
Tippecanoe Avenue crossing, pre-1959*
Pedley Road crossing, pre-1959*
Palm Lane crossing, pre-1959*
Third Street crossing near Warm Creek Channel, 1959-1966*
** Source: aerial photographs available at historicaerials.com, 1959-1980*

Historical maps and aerial photographs indicate that this segment of City Creek, a wide, unregulated wash in the late 1930s that ran further to the south in the eastern reach, had been fully channelized at least by the late 1950s. The eastern portion was evidently completed along the realigned course during the construction of what would become Norton Air Force Base in 1940-1941, and the rest of the channel likely dates to the same era.

The western end of this segment of the channel was realigned between 1959 and 1966, when the Warm Creek Channel was completely reconfigured. To the east of Victoria Avenue, approximately 500 feet of the open channel were converted into an underground culvert in 2012-2013, in preparation for the extension of that street onto the former military base in 2014-2016. The rest of the channel has undergone no major changes since 1959 except for the extension of Del Rosa Drive across it sometime between 1968 and 1980.

The City Creek Channel is a peripheral feature associated, at least partially, with the establishment of a WWII-era military base but does not demonstrate a unique or particularly close association with that event or with any other events or persons of recognized historic significance. Simple in design and utilitarian in character, the channel and its associated features, such as the bridges and culverts, do not stand out as important examples of any style, type, period, region, or method of construction, nor are they known to represent the work of a prominent architect, designer, engineer, or builder. Finally, as a late-historic-

Recorded by Daniel Ballester **Date** December 10, 2019 ___ Continuation √ Update
Form Prepared by Bai "Tom" Tang **Date** January 29, 2019
Affiliation: CRM TECH, Colton **Project No:** CRM TECH 3553

period infrastructure feature of standard construction, the channel demonstrates little potential for any important historical or archaeological information.

Based on these considerations, the 2018 and 2019 evaluations of Site 36-033079—that it is ineligible for listing in the National Register of Historic Places or the California Register of Historical Resources—appears to remain valid and appropriate.

- **UTM Coordinates: Zone** 11 ; Point A: 479,135 **mE**/ 3,773,994 **mN**
  Point B: 474,708 **mE**/ 3,773,705 **mN**
- **UTM Derivation:** √ USGS Quad ___ GPS

Report Citation:

Bai "Tom" Tang, Deirdre Encarnación, Daniel Ballester, Nina Gallardo, and Ben Kerridge
2020 Historical/Archaeological Resources Survey Report: City Creek Channel Project, Cities of San Bernardino and Highland, San Bernardino County, California



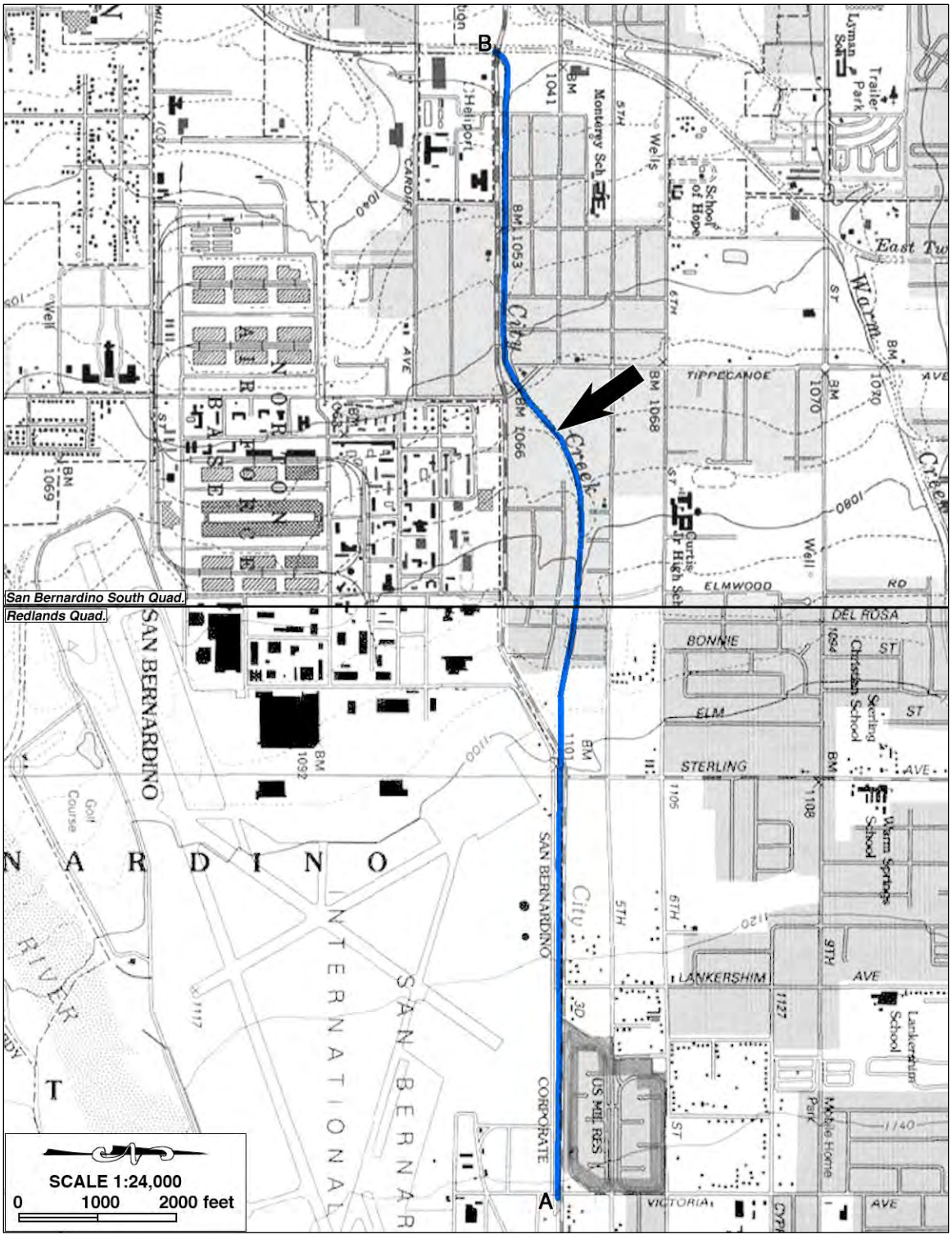
Typical appearance of the segment of the City Creek Channel between Victoria Avenue and Warm Creek. *Left*: concrete-lined channel at the eastern end, view to the east; *right*: earthen channel near the western end, view to the west. (Photographs taken on December 10, 2019)

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 36-033079 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder)

*Map Name: Redlands and San Bernardino South, Calif.
*Scale: 1:24,000 *Date of Map: 1980/1996



*Required information

Recorded by Daniel Ballester **Date** March 22, 2019 ___Continuation √ Update
Form Prepared by Daniel Ballester **Date** May 1, 2019
Affiliation: CRM TECH, Colton **Project No:** CRM TECH 3453

On March 22, 2019, an approximately 700-foot-long segment of the City Creek Channel located at and near its intersection with Victoria Avenue, approximately 450 feet east of the segment recorded in 2018, was included in an intensive-level field survey. The western half of this segment, to the west of Victoria Avenue, is identical in configuration to the previously recorded segment, although some of the concrete panels lining the slopes have evidently been replaced in recent years. The eastern half have been converted into an underground culvert, and the open channel reemerges only after it crosses to the north side of Third Street some 625 feet east of Victoria Avenue. Aerial photographs available from Google Earth indicate that the alteration to the eastern half of the segment took place in 2012-2013, before Victoria Avenue was extended into the San Bernardino International Airport—and over the channel—in 2014-2016.



The segment of City Creek Channel surveyed on March 22, 2019. *Left*: remaining portion of open channel, view to the west from Victoria Avenue; *right*: culvert entrances under Victoria Avenue, view to the southeast.

- **UTM Coordinates: Zone** 11 ; 479,016-479,234 **mE**/ 3,773,989 **mN**
- **UTM Derivation:** ___USGS Quad __GPS √ Google Earth

Report Citation:

Bai "Tom" Tang, Daniel Ballester, Terri Jacquemain, and Ben Kerridge
2019 Identification and Evaluation of Historic Properties: San Bernardino International Airport Land Exchange Project, City of San Bernardino, San Bernardino County, California

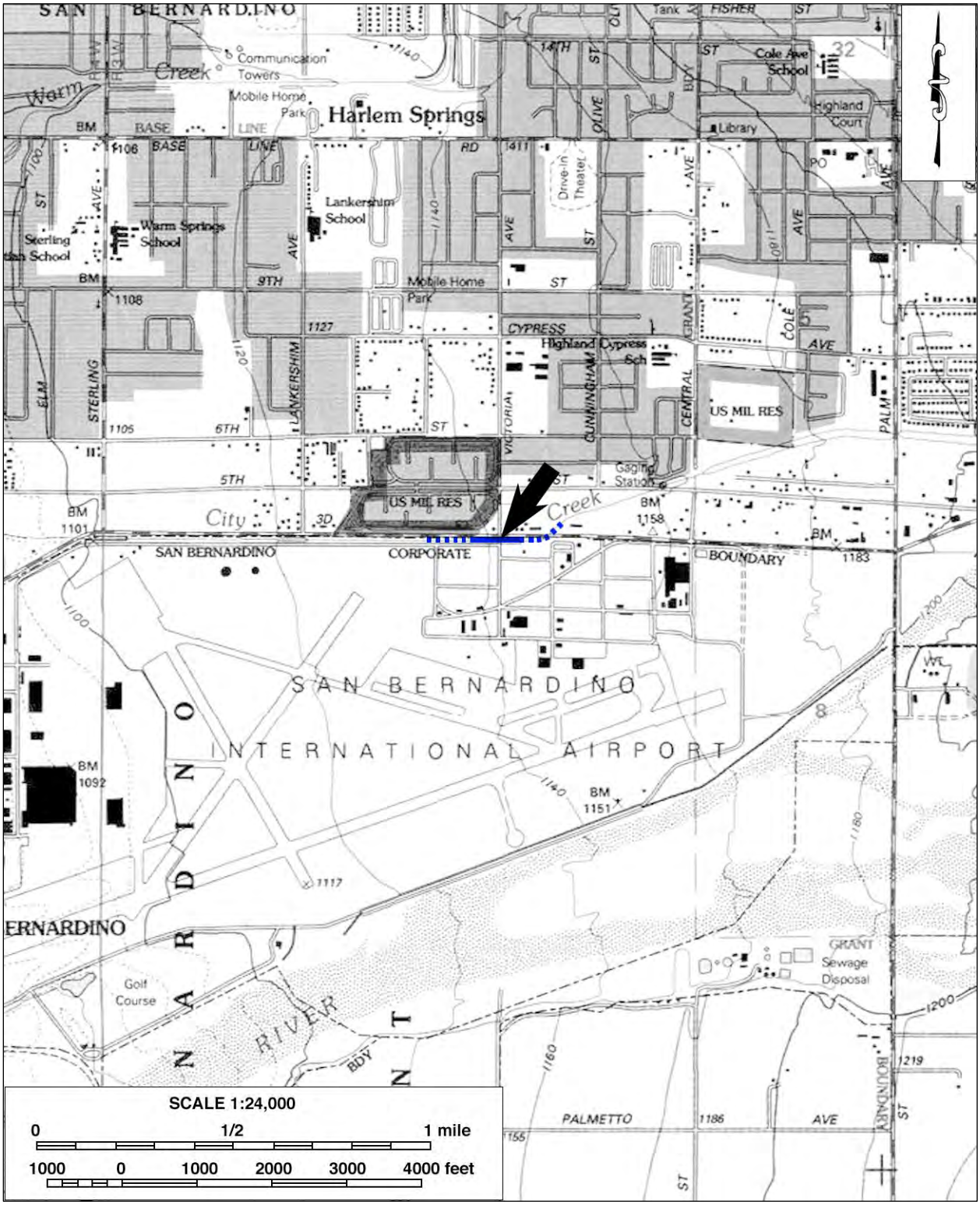
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 36-033079
HRI #
Trinomial

Page 2 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 3336-3H

*Map Name: Redlands, Calif. *Scale: 1:24,000 *Date of Map: 1996



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # Pending
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) CRM TECH 3336-3H

P1. Other Identifier: City Creek Channel

***P2.** Location: Not for Publication √ Unrestricted *a. County San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Redlands, Calif. Date 1967, photorevised 1996
T1S; R3W; S.B. B.M. (within the Rancho San Bernardino land grant)
Elevation: Approximately 1,111-1,134 feet above mean sea level (including the depth of the channel)

c. Address N/A City San Bernardino Zip 92408

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; A: 478125 mE/ 3774000 mN;
B: 478880 mE/ 3774000 mN.

UTM Derivation: USGS Quad GPS √ Google Earth

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) On the northern edge of the San Bernardino International Airport (formerly Norton Air Force Base), 26-28 feet south of Third Street, between Sterling Avenue and Victoria Avenue

***P3a.** Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of a segment of concrete-walled drainage channel that contains the realigned City Creek, a tributary of the Santa Ana River. The segment recorded at this location features an open earthen bottom and gently sloping side walls lined with 3.5-inch-thick concrete panels (see p. 2 for dimensions). The channel was evidently built in the early 1940s in association with the construction of what would become Norton Air Force Base on the adjacent property to the south (now the San Bernardino International Airport), which required the realignment of City Creek from its natural course further the south.

***P3b.** Resource Attributes: (List attributes and codes) HP20: Canal/aqueduct

***P4.** Resources Present: Building √ Structure Object Site District Element of District Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.) (See p. 2 and p. 4)

P5b. Description of Photo: (view, date, accession #)

***P6.** Date Constructed/Age and Sources: √ Historic Prehistoric Both Early 1940s?

***P7.** Owner and Address: San Bernardino County Flood Control District, 320 North E Street, #510, San Bernardino, CA 92401

***P8.** Recorded by: (Name, affiliation, and address) Daniel Ballester, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

***P9.** Date Recorded: May 16, 2018

***P10.** Survey Type: (Describe) Intensive-level survey for Section 106 and CEQA compliance purposes

***P11.** Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Michael Hogan, Ben Kerridge, and Daniel Ballester (2018): Identification and Evaluation of Historic Properties: Proposed Eastgate Air Cargo Facility, City of San Bernardino, San Bernardino County, California

***Attachments:** None √ Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
Archaeological Record District Record √ Linear Resource Record Milling Station Record Rock Art Record
Artifact Record Photograph Record Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary #
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 3336-3H

L1. Historic and/or Common Name: City Creek Channel

L2a. Portion Described: ____ Entire Resource √ Segment ____ Point Observation **Designation:**

b. Location of Point or Segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) The segment recorded extends approximately 2,480 feet to the west along the north side of Perimeter Road from the intersection of Hangar Way.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/ sections as appropriate.) See Item P3a.

L4. Dimensions: (In feet for historic features and meters for pre-historic features)

- **a. Top Width** 51-66 feet
- **b. Bottom Width** 32-35 feet
- **c. Height or Depth** 4.0-5.5 feet
- **d. Length of Segment** 2,480 feet

L5. Associated Resources:

L4e. Sketch of Cross-Section (Include scale)
Facing:

See p. 4

L6. Setting (Describe natural features, landscape characteristics, slope, etc. as appropriate) The site is situated on the outskirts of the City of San Bernardino, between the perimeter fence of the San Bernardino International Airport and the Third Street right-of-way. The surrounding area contains scattered development and large expanses of vacant land, including some parcels where buildings associated with the former military base have been demolished since the closure of the base in 1994.

L7. Integrity Considerations: The overall configuration of the channel does not appear to have been altered significantly, although some of the concrete side slope panels are clearly of a much later vintage. As a working component of the modern flood-control infrastructure, however, the channel does not demonstrate any distinctively historical characteristics. In addition, it lacks any documented association with significant historic figures or events, archaeological data potential, or special merits in design, construction, engineering, or esthetics. Therefore, it does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing (View, scale, etc.) Photo taken on November 27, 2018; view to the east

L9. Remarks:

L10. Form Prepared by: (Name, affiliation and address): Nina Gallardo, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

L11. Date: November 27, 2018

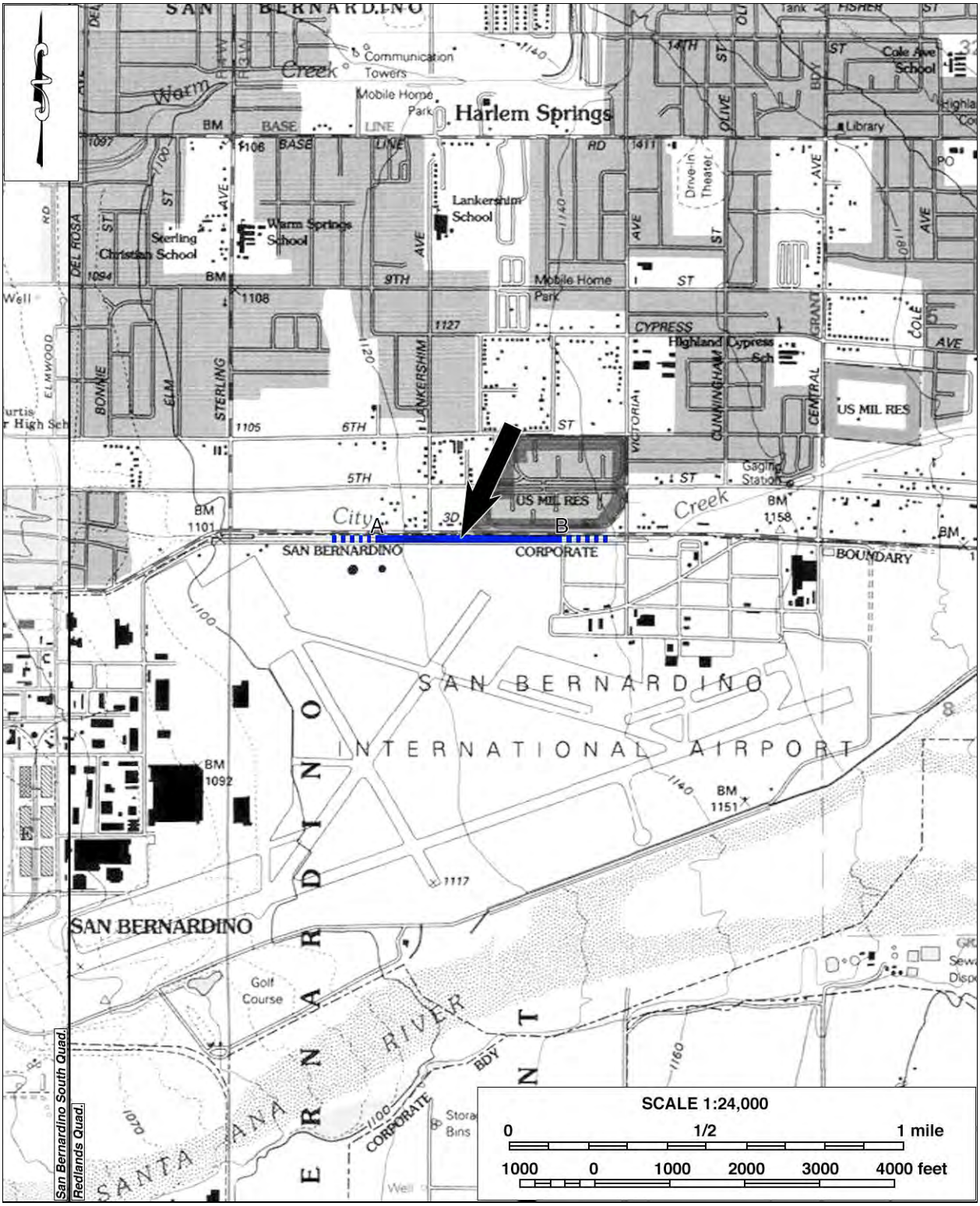
State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI# _____
Trinomial _____

Page 3 **of** 4 ***Resource Name or #** (Assigned by recorder) CRM TECH 3336-3H

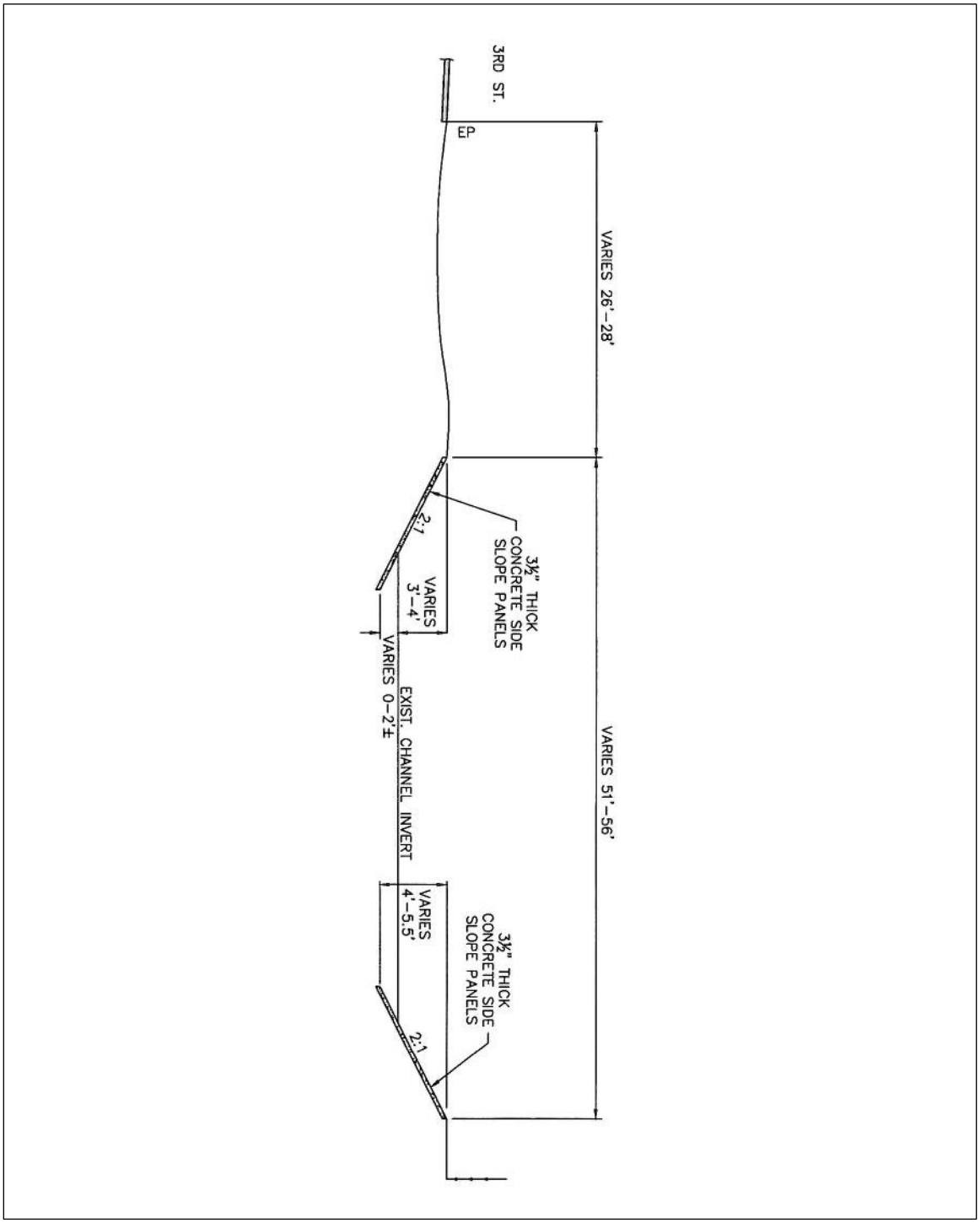
***Map Name:** Redlands and San Bernardino South, Calif.
***Scale:** 1:24,000 ***Date of Map:** 1980/1996



State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI# _____
Trinomial _____

***Resource Name or #** (Assigned by recorder) CRM TECH 3336-3H



Sketch of cross-section, facing East

REPORT 76-11.16 - NADB-1060447

P1024-97-H
McKENZIE DITCH

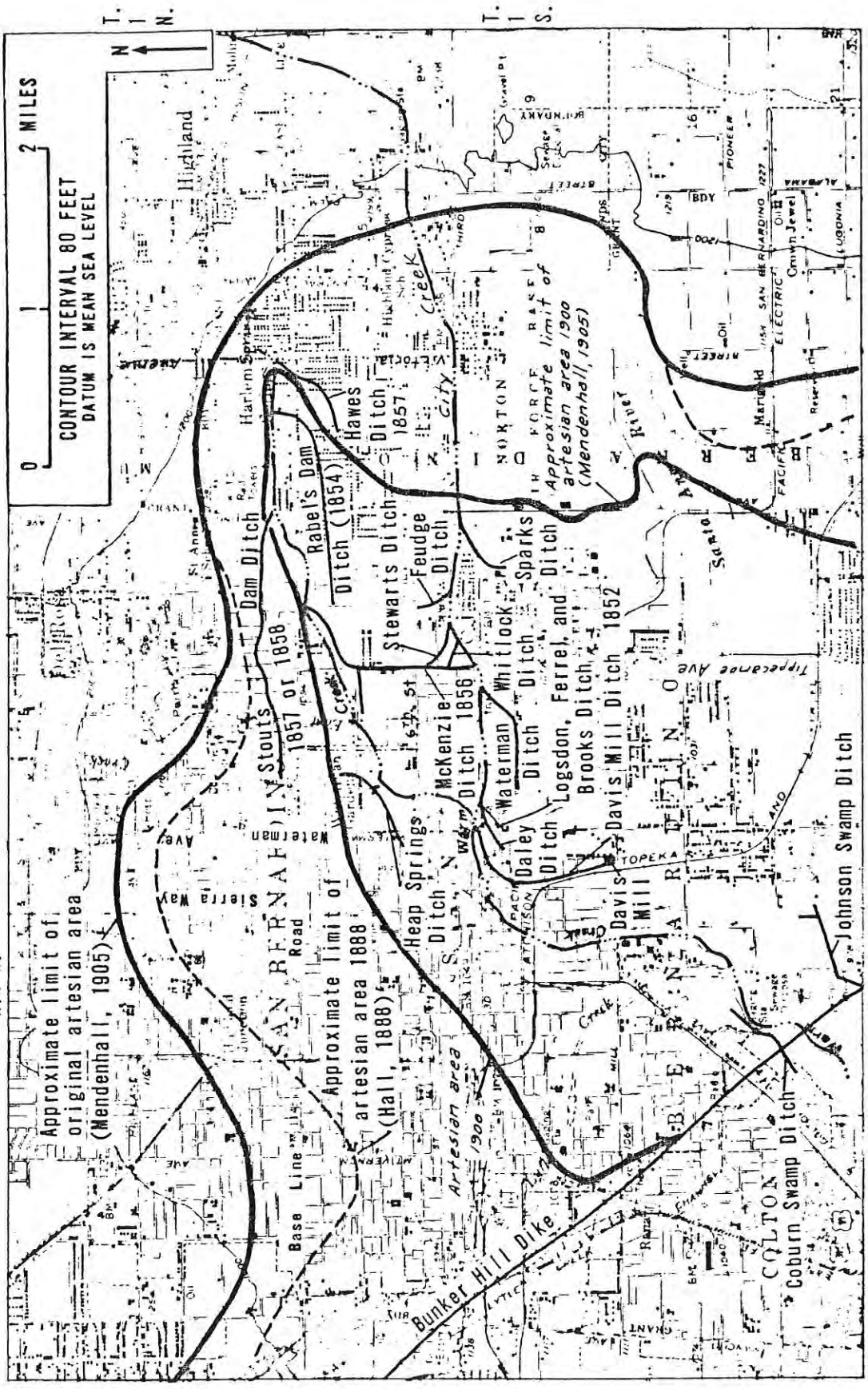


FIGURE 21.--Diversions from Warm Creek.

3pp

P1074-71-14

The control of Rabel's dam ditch passed from the Mormons, probably in 1857 or 1858 (Beattie, 1939, p. 290), when many of them returned to Salt Lake City. The Rancho San Bernardino was then divided and sold to individual owners, who maintained the ditch. In October 1895 an agreement between the ditch owners and the Riverside Water Co. provided that owners of rights in the ditch were entitled to 250 miner's inches of the natural flow of Warm Creek (Lippincott, 1902a, p. 24). To measure this flow the company, as part of the agreement, installed a permanent weir at the head of the ditch. In 1899 the weir was removed and the upper part of the ditch was lowered with the consent of the Riverside Water Co. (Lippincott, 1902a, p. 24). This increased the flow for a short time, but the flow soon dropped to less than the original discharge.

At about the time the above-mentioned weir was installed, the owners of Rabel's dam ditch decided that they would have better control of their water rights and distribution system by incorporating. Accordingly, on October 18, 1897, they organized the Warm Creek Water Co. Their service area, in 1900, consisted of 400 irrigated acres of alfalfa, vegetables, and other garden produce (Lippincott, 1902a, p. 24).

As mentioned on page 51, the artesian wells, drilled to supplement the natural flow from the basin, greatly reduced the flow of the springs at the head of Warm Creek. The measured flow in the ditch in August 1899 was only 0.94 ft^3/s, and in June of the following year the flow dropped to 0.35 ft^3/s (Lippincott, 1902a, p. 29). The decrease in flow from about 5 ft^3/s in the early 1880's to less than 0.5 ft^3/s in 1900 reflects the general decline in surface flow of all the streams on the valley floor whose source was within the artesian area. The natural flow of Warm Creek continued to decline in the twentieth century. When in March 1952, the Meeks and Daley Water Co. purchased the rights in Rabel's dam ditch, there was no flow in Warm Creek at the ditch heading (oral commun., Meeks and Daley Water Co., 1967). After this purchase of the major part of the outstanding stock of the Warm Creek Water Co., the company was dissolved.

McKenzie Ditch

The McKenzie ditch was built by Mormon settlers about 1856 (Hall, 1888, p. 273). The point of diversion from Warm Creek was on the south side of the creek about midway between present-day Sterling and Tippecanoe Avenues (fig. 21). In the early 1880's the owners of the ditch maintained a tight wooden dam in the stream and diverted the flow through an open ditch whose capacity was about 200 miner's inches. During that period water from the ditch irrigated about 240 acres of land west of Tippecanoe Avenue, between Warm and City Creeks, and 85 acres south of City Creek. Water was carried across City Creek in a flume (Hall, 1888, p. 272). The irrigated areas included orchards, vineyards, and fields of alfalfa and summer crops.

P1074-97-H

Prior to 1880, the water supply was generally adequate for all needs, but in the next few years there were brief periods when the supply fell short of the irrigation requirements (Hall, 1888, p. 72). In 1899 the ditch diverted 2 ft^3/s and in June 1900 it diverted 1.57 ft^3/s (Lippincott, 1902a, p. 30). In 1900 the irrigated area was about 300 acres, principally for growing alfalfa and garden crops.

In 1900 the owners of the McKenzie ditch claimed all the water in Warm Creek at their dam, but the Riverside Water Co. claimed that the McKenzie right was limited to 100 miner's inches (Lippincott, 1902a, p. 25). The controversy was settled in March 1901 when a court decree established the rights of the ditch owners to 209 miner's inches of the natural flow of Warm Creek, with no right to exceed that quantity by pumping (written commun., W. P. Rowe and Son, 1967).

The discharge records of Warm Creek at Base Line Road show that flow for the months of June to September, during the mid-1940's, ranged from 0.2 to 3.4 ft^3/s, with a probable average of 1 ft^3/s or less during those irrigation seasons. A combination of diminishing flow in Warm Creek and subdivision of the service area for residential use had eliminated the diversion, prior to the purchase of the water rights of the ditch in 1943 by the Riverside Water Co. (written commun., city of Riverside, 1967).

Stout's Dam Ditch or Shay Ditch

Stout's dam ditch, later known as the Shay ditch, diverted upstream from a tight dam in the Warm Creek channel, a short distance east of Sterling Avenue (fig. 21). The original ditch followed a course generally parallel to Base Line Road, extending west to, or possibly beyond, the East Twin Creek channel. The ditch was built in 1857 or 1858, and in 1881 its capacity was about 100 miner's inches (Hall, 1888, p. 275). At some later date the ditch was apparently enlarged.

The area irrigated from Stout's dam ditch lay between the ditch and Base Line Road. The irrigated acreage was 140 acres in 1881, and increased to 210 acres in 1885 (Hall, 1888, p. 271). During that period the irrigated crops included deciduous fruits, grapes, alfalfa, and summer crops.

The water supply for the ditch was not as copious as that for Rabel's dam ditch, it being subject to the prior rights of both Rabel's dam ditch and the McKenzie ditch. The supply was principally outflow from a swamp north of Warm Creek and east of the diversion dam. During the dry period following 1862, the supply was insufficient to meet irrigation needs (Hall, 1888, p. 271). In 1895, by agreement with the Riverside Water Co., the owners of the ditch were entitled to divert 112.5 miner's inches of water from Warm Creek (Lippincott, 1902a, p. 24).

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P1074-99-H
WHITLOCK DITCH

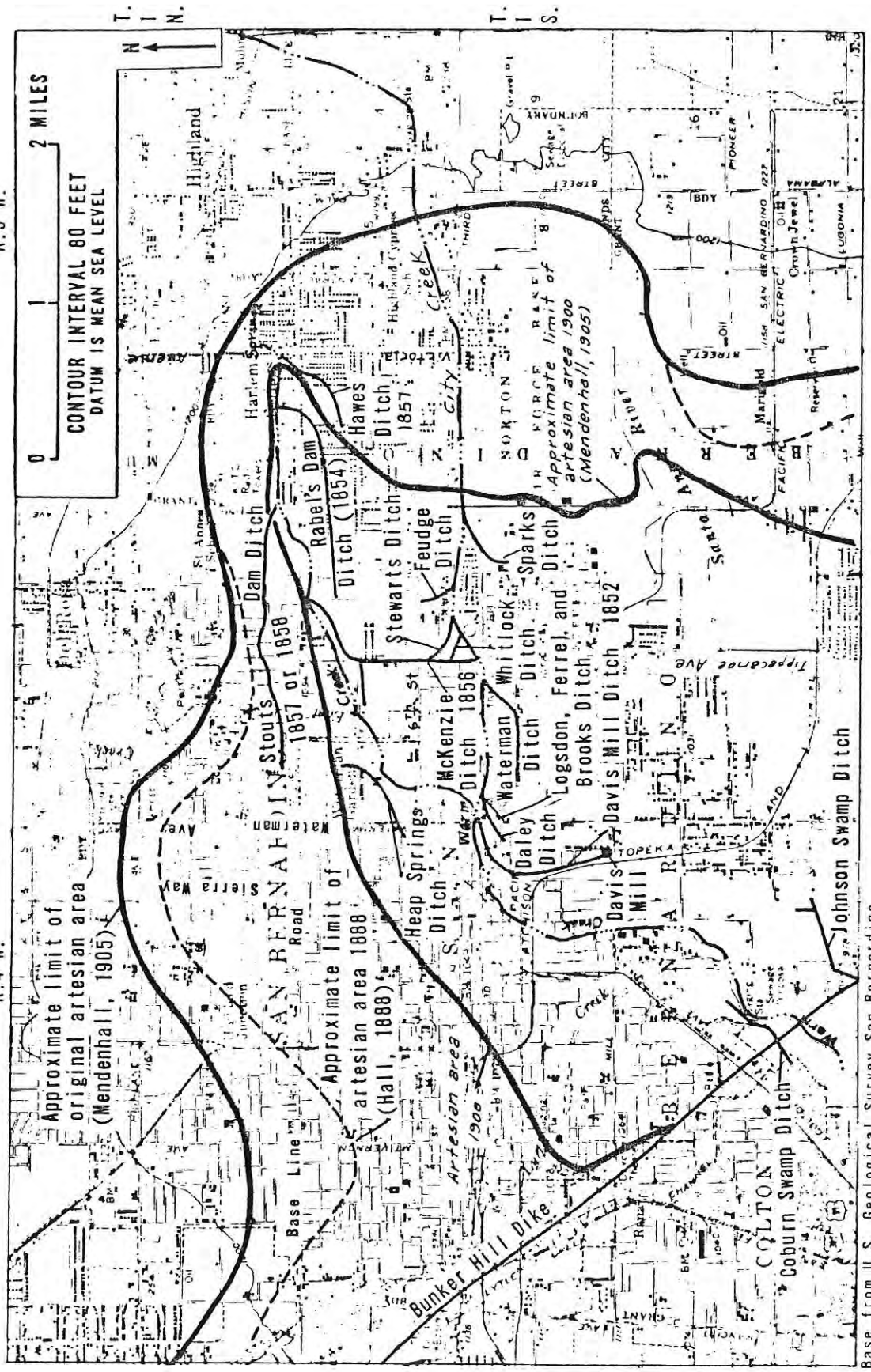


FIGURE 21.--Diversions from Warm Creek.

of 25 miner's inches of water to the ditch owners, thus maintaining a supply of water for the area irrigated by Heap Springs ditch. In the early 1930's the Riverside Water Co. purchased this right to 25 miner's inches, and thus eliminated one more small diversion in the Warm Creek basin (oral commun., city of Riverside, 1967).

Spark's Ditch

Spark's ditch diverted water from the south side of City Creek (a tributary of Warm Creek) near Sterling Avenue (fig. 21). The water was used to irrigate 20 acres of land west of Sterling Avenue and south of City Creek. In 1880 the capacity of the ditch was about 25 miner's inches (Hall, 1888, p. 273). Although Lippincott (1902a, b) does not mention Spark's ditch, Mendenhall (1905, pl. XII) indicates that it was still in use in 1904.

Stewart's Ditch

Stewart's ditch diverted water from the north side of City Creek about midway between Sterling and Tippecanoe Avenues (fig. 21), for the irrigation of about 47 acres of land east of Tippecanoe Avenue (Hall, 1888, p. 273). At the time of Hall's investigation, the capacity of the ditch was about 35 miner's inches.

Whitlock Ditch

The Whitlock ditch diverted flow from the north side of City Creek (fig. 21). The ditch was used to irrigate vegetable gardens in the area, and its surplus water discharged into the McKenzie ditch. Records for the ditch are meager. On June 29, 1898, its flow was 12 miner's inches (Lippincott, 1902a, p. 26). The diminishing flow in the artesian basin of City Creek caused the abandonment of this diversion.

Feudge Ditch

The Feudge ditch probably diverted water from the north side of City Creek, upstream from Stewart's ditch (fig. 21). The water was used to irrigate a small area north of City Creek and east of Stewart's ditch, as indicated on a map by Hall (1888, San Bernardino sheet). Neither Hall nor Lippincott mentioned the Feudge ditch in the text of their reports.

RSBR

1H LA → Sonora Rd P36-016417
2H Cucamonga → Cajon Pass Rd
3H Baseline Rd P36-015477
4H Sawpit Cyn Rd
5H W. Cajon Cyn Rd
6H Cajon Pass → Horsethief Cyn Rd
7H - now SBR-8092H
8H - now SBR-8094H
~~9H Santa Ana Cyn Power Lines~~ 8/7/59
10H - now SBR-7051H
11H - now SBR-6544H
12H E. Highlands Ranch
~~13H Van Dusen Rd~~ SBR-4276H 11/99
14 Indian Village Site, Rialto
15 Indian Villages - Moj R-Park
16 Indian Village Site, Apple Valley
~~17H De Anza Trail~~ SBH-27 P36-015980 11/03
18H Tri City Theater, Loma Linda
~~19H~~ Devil Cyn Toll Rd Portion of 36-013421 7/07
20 re-record
21H Sunnyside Ditch - South Fork
~~22H Judson-Brown Ditch~~ 13549H 8/07
23H - now SBR-8546H
24 - Pinnacles Site - Searles Dry Lk
25 no record
26H Timber Ditch
27H North Fork Ditch - 1856
28H South Fork of Santa Ana 1877
29H Raber's Ditch
30H Stout's Dam & Ditch
31H Plunge Cr. Diversion Ditch
32H Baseline Ditch
33H Rialto Canal
34H Old Town Ditch
35 Elephant Mtn Quarry
36 - now SBR-7694H
37 - now SBR-8857H
38H ~~Boulder Dam → SB Powerline~~ SBR-12,315H
39H ~~Kramer → Victor Powerline~~ SBR-10346H
40 - no record
41 - Lithic Reduction - Ft Irwin
42 - Roger's M-75
~~43H Harlem Motor Rd~~ 10/07 SBR-10820H
44 - Roger's M-120
45H Death Vly Mining Rd
46H Mt San Antonio Mines & Reservoir
47 Topock Trail
48H Loma Linda Survey Structures
49H Euclid Ave
50H Mult Hist Structures - Fontana
51 SBR-8630 → 39
52 Afton Cyn Trails
53 Roger's M-62 & 63
54 Roger's M-59
55 Roger's M-60 & 60A
56 Sperry Wash Village Sites

Report 76-11.16 - NADB1060447 PSBR-27-H North Fork Ditch

Water commissions played an important role in regulating those water rights. As early as 1854, the California legislature, in seeking to promote the orderly development of irrigated agriculture in the State, passed an act providing for "board(s) of commissioners...to regulate water courses," whose duty would be "to apportion the (irrigating) water of the streams in their districts among the inhabitants thereof, and authorize the construction of ditches" when proper application was made.

On the pages that immediately follow, there are numerous references to Hall (1888) and Beattie (1951). In their histories of the water development of the Santa Ana River above Waterman Avenue, San Bernardino (fig. 4), Hall and Beattie disagree at times on the location of points of diversion and on dates when ditches were established. Beattie's account is given more credence here because he had access to Hall's report when he was doing his research and would be unlikely to differ with Hall for frivolous reasons.

North Fork Ditch

Two groups of non-Mormon settlers established communities east of San Bernardino in the early 1850's. Referred to present streets, one community was south of Mill Street between Waterman and Tippecanoe Avenues, and the other along Sixth Street between Waterman and Sterling Avenues (Beattie and Beattie, 1939, p. 241). The former was known as the Timber Settlement and the latter as the City Creek Settlement (fig. 4). The high water table in the area enabled deep-rooted crops to grow readily, but shallow-rooted crops such as corn and garden crops required supplemental water.

In May 1856 the settlers in the two communities combined their efforts in the construction of a dam in the Santa Ana River and two diversion ditches to carry water to the settlements. The approximate location of the ditch heading and ditches is shown in figure 4. The Timber Settlement was served by the Timber ditch and the City Creek Settlement was served by the North Fork ditch.

At about the same time, two Mormon groups established settlements near the City Creek and Timber Settlements. One group settled on the site of the present city of San Bernardino, and the other group settled on the south side of the Santa Ana River, northwest of San Gabriel Mission Asistencia. The latter settlement became known as Old San Bernardino. In the autumn of 1856, the settlers of Old San Bernardino, under the leadership of Bishop Nathan C. Tenney, built the Tenney ditch (figs. 4 and 5) from the south side of the river to irrigate land to the north of that irrigated by the Mill Creek zanja, or old mission ditch (Beattie, 1951, p. 3).

Because the Tenney ditch heading was upstream from the earlier established heading of the diversions to the City Creek and Timber Settlements--North Fork and Timber ditches--the users of those two ditches immediately protested to the board of water commissioners. The board decreed that all flow belonged to the Timber and North Fork ditches and ordered Tenney to cease diverting any flow from the river. By order of the board a tight dam was built across the head of the Tenney ditch and that terminated the Tenney diversion.

2pp

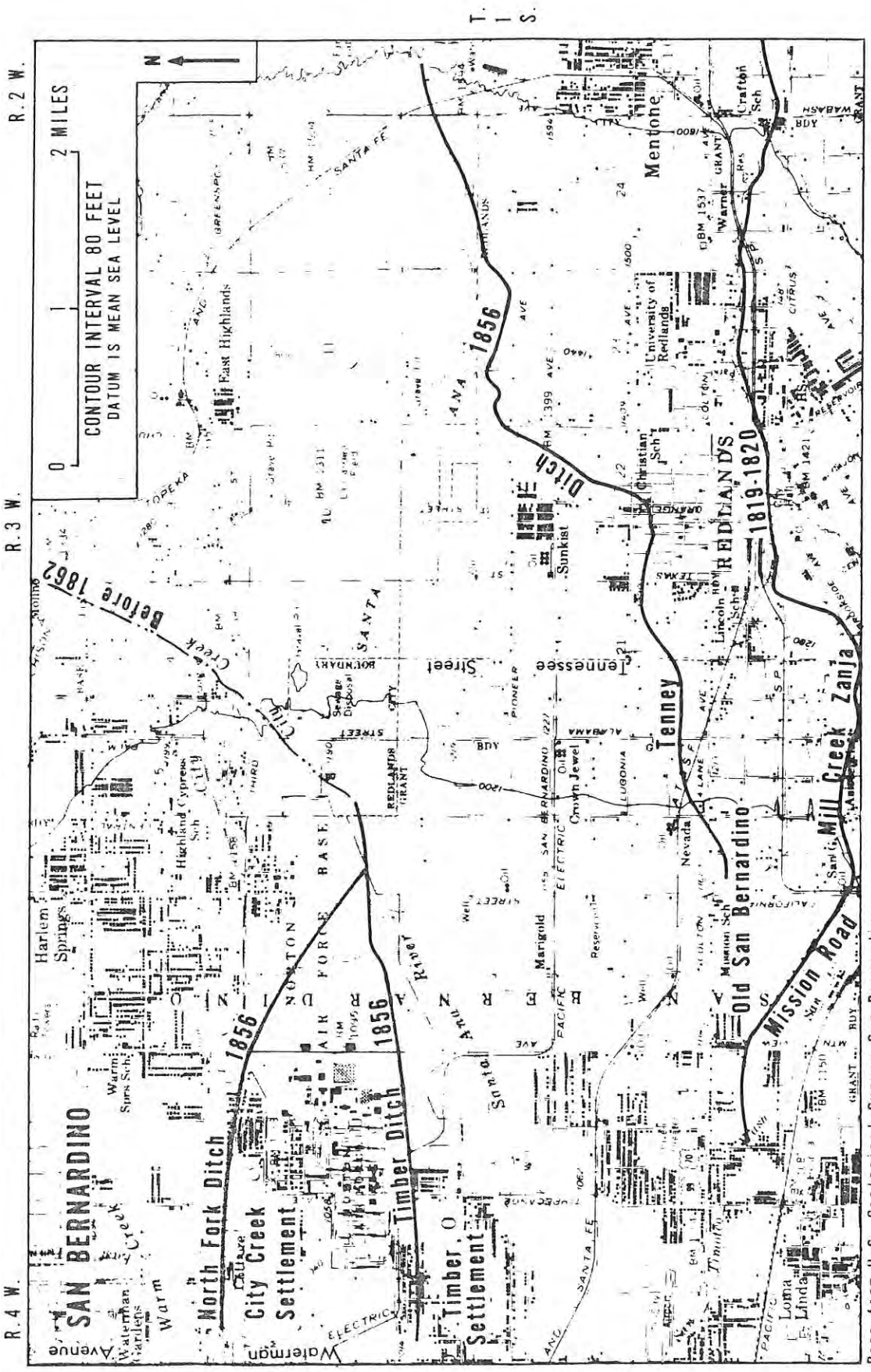


FIGURE 4.--North Fork, Timber, and Tenney ditches.

APPENDIX 3c

Addendum to 2020 Cultural Report

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

July 21, 2020

Tom Dodson, President
Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405

Re: Addendum to Historical/Archaeological Resources Reconnaissance
Airport Gateway Specific Plan
Cities of San Bernardino and Highland, San Bernardino County, California
CRM TECH Contract No. 3167/3637

Dear Mr. Dodson:

At your request, CRM TECH has completed a cultural resources assessment on approximately 9.2 acres of developed land that has been added to the Airport Gateway Specific Plan proposed by the Inland Valley Development Agency (IVDA). The additional area of study consists of Assessor's Parcel No. 0136-381-09, which is currently occupied by the NTS San Bernardino Rocket and Fluids Test Laboratory at 3505 E. Third Street. It is located on the southwestern corner of Third Street and Alabama Street, to the northeast of the San Bernardino International Airport, within fractional Section 8 of Township 1 South Range 3 West, and on the southeastern edge of the San Bernardino city limits (Figures 1, 2).

As you know, the original planning area, measuring 675 acres in total and stretching between the Cities of San Bernardino and Highland (Figure 1), was the subject of a cultural resources reconnaissance that CRM TECH completed in 2017 for what was then known as the Fifth and Third Street Corridor Specific Plan (Tang 2017). The objective of this report, as an addendum to the 2017 study, is to assist your firm and the lead agency for the specific plan, namely IVDA, in identifying any "historical resources," as defined by the California Environmental Quality Act (CEQA), that may be present within the additional planning area.

In order to accomplish this objective, CRM TECH reviewed data gathered during the 2017 study for information pertaining to the additional planning area and conducted a field reconnaissance. Due to facility closure during the COVID-19 pandemic and the resulting delays, an update of the 2017 cultural resources records search could not be obtained in time from the South Central Coastal Information Center (SCCIC). The results of the existing records search, however, indicate that the additional planning area was covered by several of the previous cultural resources studies in the vicinity, but that no cultural resources had been identified within or adjacent to its boundaries prior to February 2017.

According to historic maps dated 1858-1996 and aerial photographs taken in 1938-2019, the additional planning area, located on the floodplain on the northern bank of the Santa Ana River and sandwiched between two of its tributaries, City Creek and Plunge Creek, contained no notable man-

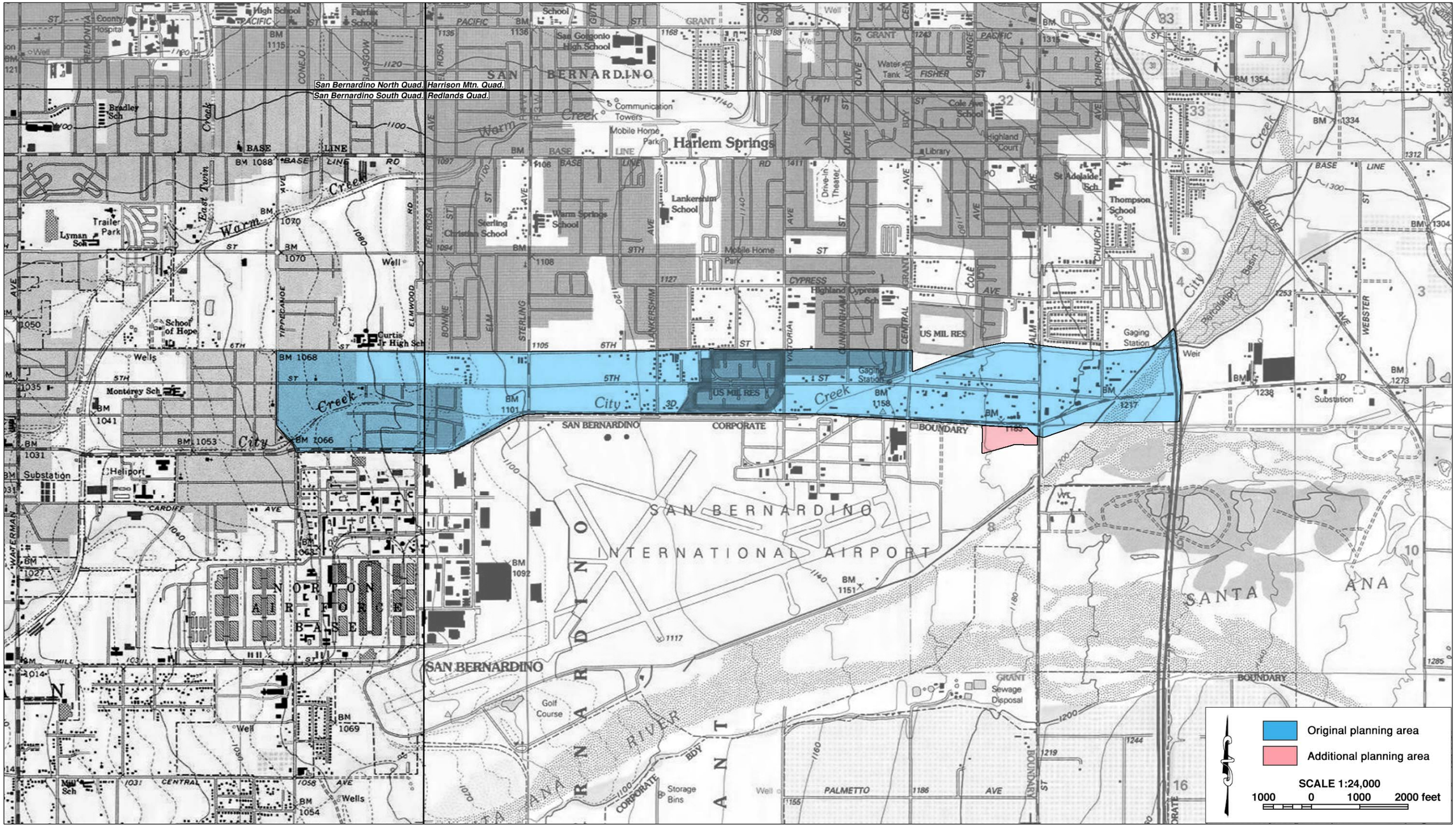


Figure 1. Location of the additional planning area in relation to the original. (Based on USGS Harrison Mountain, Redlands, San Bernardino North, and San Bernardino South, Calif., 7.5' quadrangles)

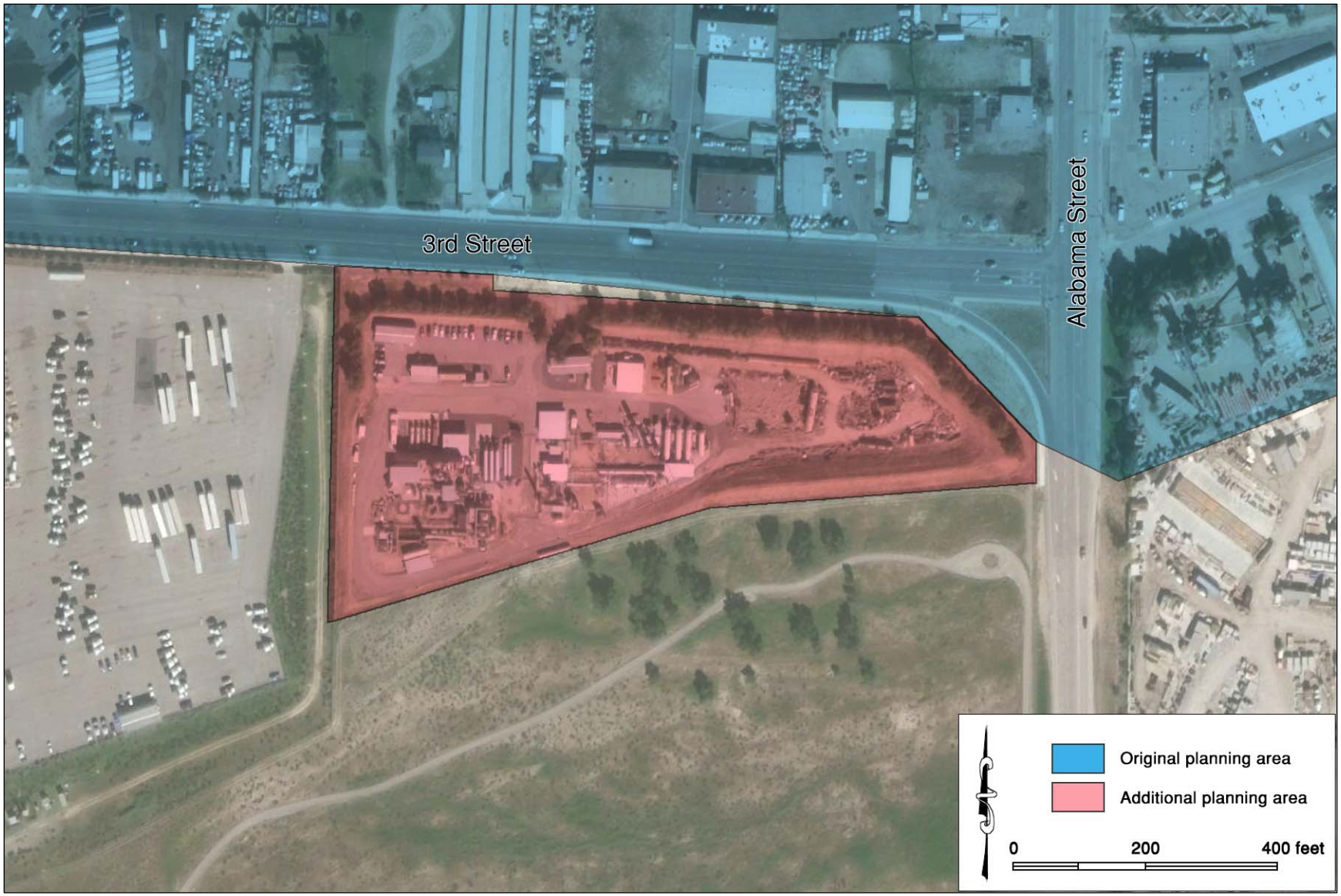


Figure 2. Aerial view of the additional planning area.

made features throughout the historic period except a minor dirt road leading off Third Street (GLO 1858; USGS 1901-1967; NETR Online 1938-1968). The property remained undeveloped and largely unused until the present-day NTS San Bernardino facility was constructed in 2005-2006 (NETR Online 1968-2009; Google Earth 1994-2009). During the construction, the ground surface in the entire area was evidently leveled and graded, and the original surface soils were probably incorporated into earthen berms that were built around the perimeter of the property (Google Earth 2005; 2006).

On July 8, 2020, CRM TECH archaeologist Daniel Ballester, M.S., carried out field reconnaissance of the additional planning area. As security measures at the NTS San Bernardino facility prevented full access to the property, the field reconnaissance was carried out from the perimeter. Ballester's field observations were supplemented with a "virtual" survey by CRM TECH architectural historian Bai "Tom" Tang, M.A., using two- and three-dimensional aerial images available from Google Maps. Despite the limitations in access, Ballester was able to confirm that the ground surface on the property has been extensively disturbed (Figure 3). The existing buildings and other features on the property, being of modern origin, standard industrial design, and utilitarian character, demonstrate no potential to be considered "historical resources."

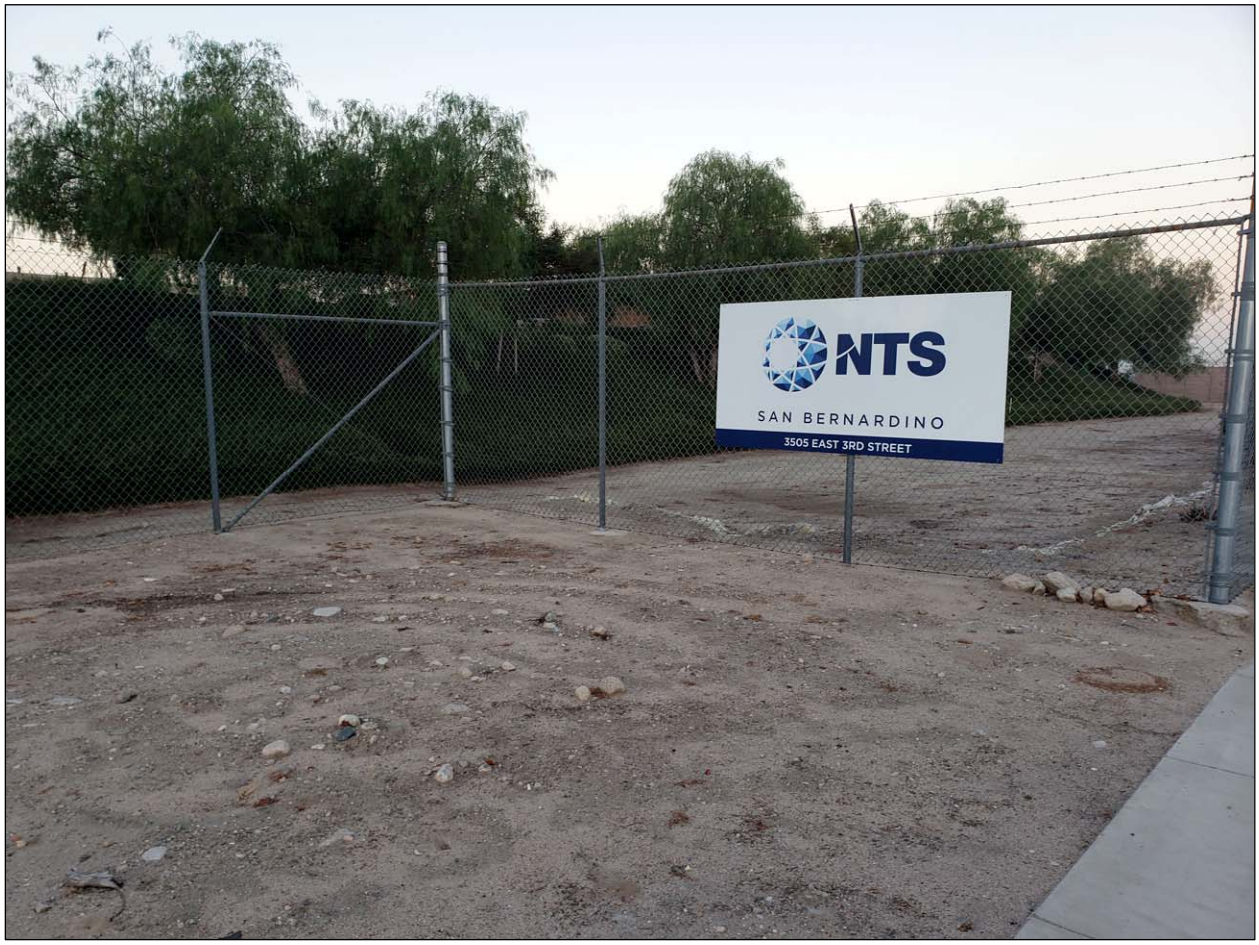
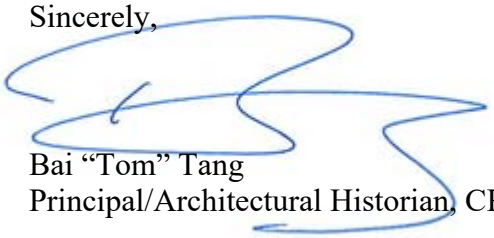


Figure 3. Typical landscape in and around the additional planning area. (Photograph taken on July 8, 2020; view to the southeast)

Based on the research results presented above, CRM TECH concludes that no "historical resources" are known to be present within the additional planning area, and that the area appears to be relatively low in sensitivity for intact deposits of subsurface archaeological remains. Therefore, CRM TECH recommends to IVDA a finding that the addition of Assessor's Parcel No. 0136-381-09 to the planning area would not cause "a substantial adverse change in the significance of a historical resource" (PRC §21084.1). However, the recommendation made in the 2017 study regarding inadvertent discovery of buried cultural materials during future earth-moving operations also applies to this property.

Thank you for this opportunity to be of service. If you have any questions or need further information on the research procedures completed during this study, please do not hesitate to contact me at (909) 824-6400 or ttang@crmtech.us.

Sincerely,



Bai "Tom" Tang
Principal/Architectural Historian, CRM TECH

References Cited:

GLO (General Land Office, U.S. Department of the Interior)
1858 Plat Map: Township No. 1 South Range No. 3 West, SBBM, surveyed in 1853-1857.

Google Earth
1994-2009 Aerial photographs of the project vicinity; taken in 1994, 2002-2007, and 2009. Available through the Google Earth software.

NETR Online
1938-2009 Aerial photographs of the project vicinity; taken in 1938, 1959, 1966, 1968, 1980, 1994, 2002, 2005, and 2009. http://www.historicaerials.com.

Tang, Bai "Tom"
2017 Historical/Archaeological Resources Reconnaissance, Fifth and Third Street Corridor Specific Plan, Cities of San Bernardino and Highland, San Bernardino County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

USGS (United States Geological Survey, U.S. Department of the Interior)
1901 Map: Redlands, Calif. (15', 1:62,500); surveyed in 1898-1899.
1943 Map: Redlands and Vicinity, Calif. (1:31,680); surveyed in 1939.
1954 Map: Redlands, Calif. (15', 1:62,500); aerial photographs taken in 1952.
1967 Map: Redlands, Calif. (7.5', 1:24,000); aerial photos taken in 1966, field-checked in 1967.

APPENDIX 4

Energy Analysis

Airport Gateway Specific Plan

ENERGY ANALYSIS

CITIES OF SAN BERNARDINO AND HIGHLAND

PREPARED BY:

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Alyssa Tamase
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JANUARY 15, 2021

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LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AGSP	Airport Gateway Specific Plan
AQIA	*Airport Gateway Specific Plan Air Quality Impact Analysis*
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHDT	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy Duty Trucks
MDV	Medium Duty Trucks
MHDT	Medium-Heavy Duty Trucks
MMcfd	Million Cubic Feet Per Day

mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	Airport Gateway Specific Plan
PV	Photovoltaic
SBIA	San Bernardino International Airport
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Feet
SoCalGas	Southern California Gas
SR-210	State Route 210
TEA-21	Transportation Equity Act for the 21st Century
TIS	*Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland*
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Airport Gateway Specific Plan Energy Analysis* is summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the 2019 California Environmental Quality Act (CEQA) Statute and Guidelines (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	*Less Than Significant*	*n/a*
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	*Less Than Significant*	*n/a*
Energy Impact #3: Would the Project achieve the goal of energy conservation by: • Decreasing overall per capita energy consumption. • Decreasing reliance on fossil fuels such as coal, natural gas and oil. • Increasing reliance on renewable energy sources.	5.0	*Less Than Significant*	*n/a*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards

- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations are discussed in detail in section 5 of this EA.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Airport Gateway Specific Plan Project (Project). The purpose of this report is to ensure that energy implication is considered by the Cities of San Bernardino and Highland (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The Airport Gateway Specific Plan Project is located immediately north of the San Bernardino International Airport (SBIA) west. The Specific Plan area is bounded generally by 6th Street and Highland Creek on the north, 3rd Street and the SBIA on the south, State Route 210 (SR-210) on the east, and Tippecanoe Avenue on the west as shown on Exhibit 1-A. North of the Specific Plan area (on the north side of 6th Street) is bordered by a mix of low- and medium-density residential uses and vacant parcels, as well as several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park and the Highland Branch Library.

1.2 PROJECT DESCRIPTION

The Project area covers approximately 679.2 acres. The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194.2 acres). The Specific Plan area is depicted on Exhibit 1-B.

The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area. The Airport Gateway Specific Plan (AGSP) would replace the existing uses within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail/hotel uses. Development of the Specific Plan area will be accomplished over time, as market conditions allow, and as developers are successful in assembling individual parcels into parcels large enough for the allowed uses.

This analysis is intended to describe energy usage associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP

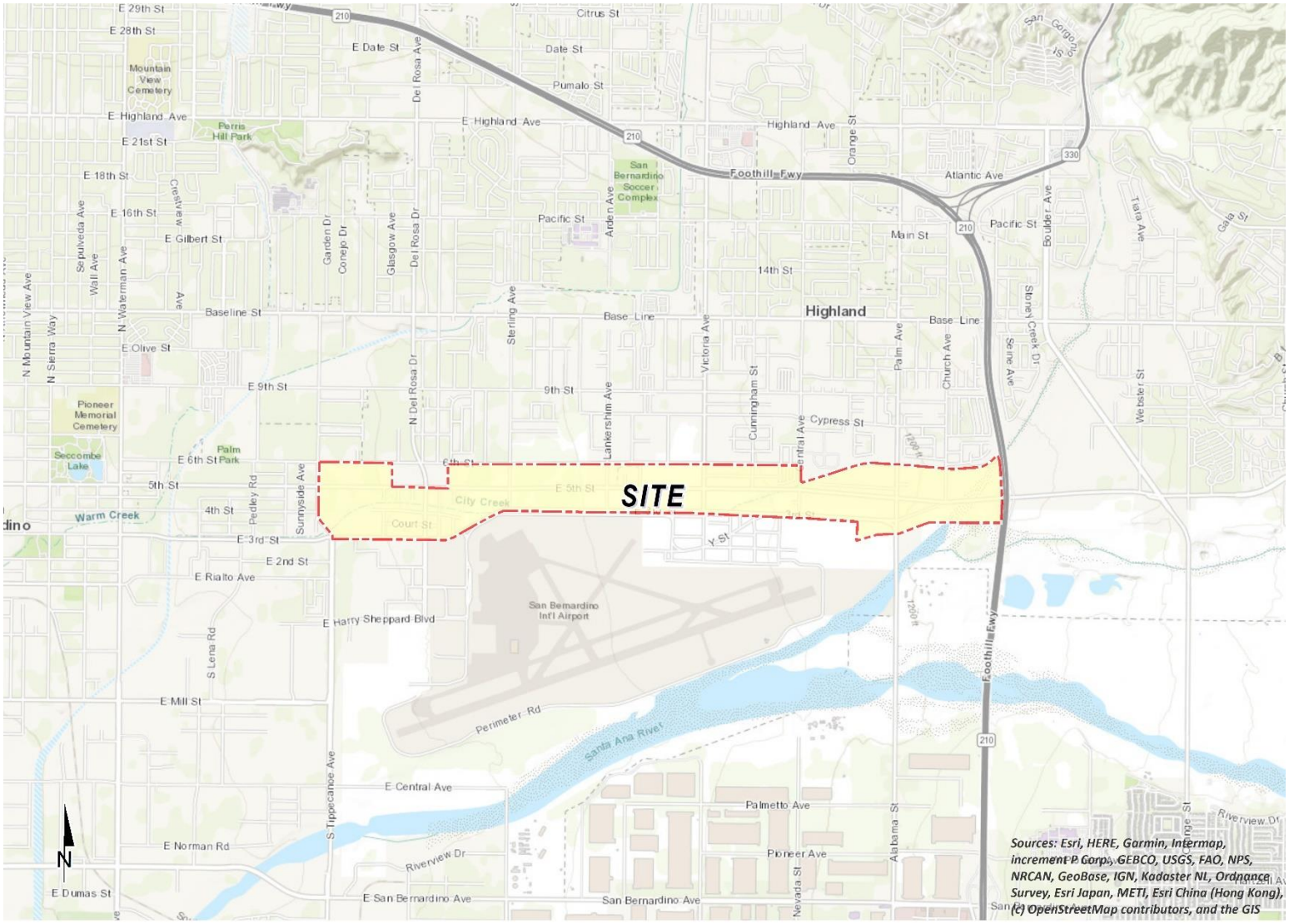
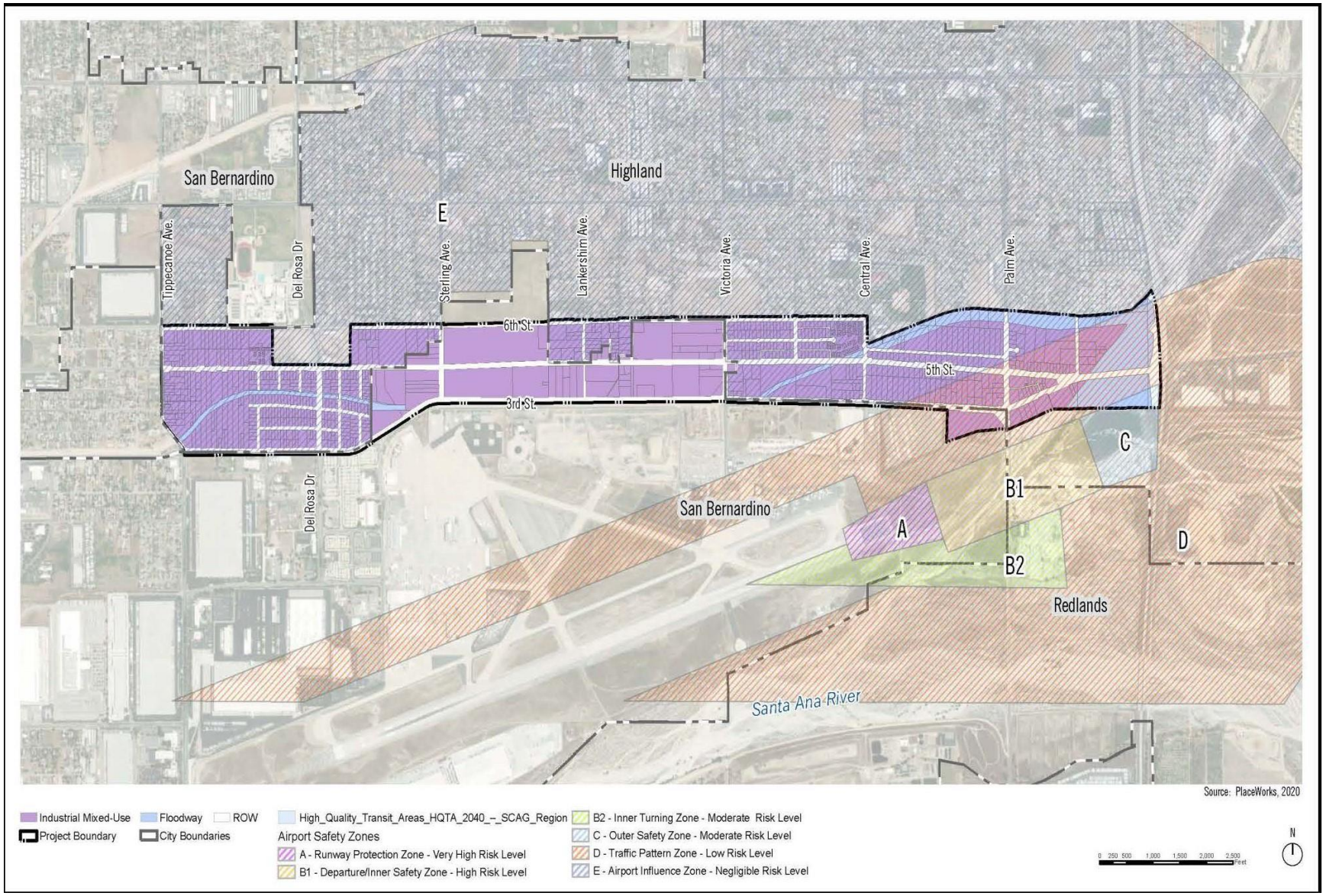


EXHIBIT 1-B: SITE PLAN



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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2018, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2020 and included (2):

- Approximately 7,967 trillion British Thermal Unit (BTU) of energy was consumed
- Approximately 681 million barrels of petroleum
- Approximately 2,137 billion cubic feet of natural gas
- Approximately 1 million short tons of coal

The California Energy Commission's (CEC) Transportation Energy Demand Forecast 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation energy Demand Forecast 2018-2030 lays out graphs and data supporting their projections of California's future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included:

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030 (3)
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030 (3)
    - Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2017 (4)

The most recent data provided by the EIA for energy use in California by demand sector is from 2017 and is reported as follows:

- Approximately 40.3% transportation;
- Approximately 23.1% industrial;
- Approximately 18.0% residential; and
- Approximately 18.7% commercial (5)

In 2019, total system electric generation for California was 277,704 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 200,475 GWh which accounted for approximately 72% of the electricity it uses; the rest was imported from the Pacific Northwest (9%) and the U.S. Southwest (19%) (6). Natural gas is the main source for electricity generation at 47% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2019)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Percent of Imports	Total California Energy Mix	Total California Power Mix
Coal	248	0.12%	219	7,765	7,985	10.34%	8,233	2.96%
Natural Gas	86,136	42.97%	46	8,859	8,906	11.53%	95,042	34.22%
Oil	36	0.02%	0	0	0	0.00%	36	0.01%
Other (Waste Heat/Petroleum Coke)	411	0.20%	0	11	11	0.01%	422	0.15%
Nuclear	16,163	8.06%	0	8,743	8,743	11.32%	24,906	8.97%
Large Hydro	33,145	16.53%	5,071	1,071	6,142	7.95%	39,287	14.15%
Unspecified	0	0.00%	7,979	13,767	21,746	28.16%	21,746	7.83%
Non-Renewable and Unspecified Totals	136,139	67.91%	13,315	40,218	53,533	69.32%	189,672	68.30%
Biomass	5,851	2.92%	903	33	936	1.21%	6,787	2.44%
Geothermal	10,943	5.46%	99	2,218	2,318	3.00%	13,260	4.77%
Small Hydro	5,349	2.67%	292	4	296	0.38%	5,646	2.03%
Solar	28,513	14.22%	282	5,295	5,577	7.22%	34,090	12.28%
Wind	13,680	6.82%	9,038	5,531	14,569	18.87%	28,249	10.17%
Renewable Totals	64,336	32.09%	10,615	13,081	23,696	30.68%	88,032	31.70%
System Totals	**200,475**	**100.00%**	**23,930**	**53,299**	**77,229**	**100.00%**	**277,704**	**100.00%**

Source: California Energy Commission's 2019 Total System Electric Generation

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity.
- California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation's jet fuel consumption in 2018. (7)
- California's total energy consumption is second highest in the nation, but, in 2018, the state's per capita energy consumption was the fourth-lowest, due in part to its mild climate and its energy efficiency programs. (8)
- In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation.
- In 2018, large- and small-scale solar photovoltaic (PV) and solar thermal installations provided 19% of California's net electricity generation (9).

As indicated above, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

2.2 ELECTRICITY

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South California Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (10). Similarly, the subsequent 2018 and 2019 IEPR's identify broad strategies that are aimed at maintaining electricity system reliability.

Electricity is currently provided to the Project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power

generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (11).

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (12).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Tables 2-2 identifies SCE's specific proportional shares of electricity sources in 2019. As indicated in Table 2-2, the 2019 SCE Power Mix has renewable energy at 35.1% of the overall energy resources. Geothermal resources are at 5.9%, wind power is at 11.5%, large hydroelectric sources are at 7.9%, solar energy is at 16.0%, and coal is at 0% (13).

TABLE 2-2: SCE 2019 POWER CONTENT MIX

Energy Resources	2019 SCE Power Mix
Eligible Renewable	**35.1%**
Biomass & Waste	0.6%
Geothermal	5.9%
Eligible Hydroelectric	1.0%
Solar	16.0%
Wind	11.5%
Coal	**0.0%**
Large Hydroelectric	**7.9%**
Natural Gas	**16.1%**
Nuclear	**8.2%**
Other	**0.1%**
Unspecified Sources of power*	32.6%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The following summary of natural gas customers & volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.*

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e. they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet

California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements .

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A

certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California ." (14)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

Based on information provided by the Project applicant, no natural gas will be used as a result of the project, and as such use of natural gas is not considered in the analysis.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. In March 2019, the Department of Motor Vehicles (DMV) identified 36.4 million registered vehicles in California (15), and those vehicles consume an estimated 17.8 billion gallons of fuel each year[1]. Gasoline (and other vehicle fuels)

[1] Fuel consumptions estimated utilizing information from EMFAC2017.

are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 394,383 land miles, more than 27.5 million passenger vehicles and light trucks, and almost 8.1 million medium- and heavy-duty vehicles (15). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. Petroleum comprises about 91% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (16). Nearly 17.8 billion gallons of on-highway fuel are burned each year, including 14.6 billion gallons of gasoline (including ethanol) and 3.2 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2019, Californians also used 194 million cubic feet of natural gas as a transportation fuel (17), or the equivalent of 183 billion gallons of gasoline.

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301a]). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2019 IEPR was adopted January 31, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as including the environmental performance of the electricity generation system, landscape-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, updates on Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the California Energy Demand Forecast (18). The 2020 IEPR Update is currently in progress but is not anticipated to be adopted until February 2021.

3.2.2 STATE OF CALIFORNIA ENERGY PLAN

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. The 2019 Title are applicable to building permit applications submitted on or after January 1, 2020. The 2019 Title 24 standards require solar PV systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting standards for nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar PV systems, homes built under the 2019 standards will about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrades compared to the prior code (19).

3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit

of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

3.2.5 CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020 (20).

3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

In compliance with Appendix G of the *State CEQA Guidelines* (21), this report analyzes the project's anticipated energy use during construction and operations to determine if the Project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

In addition, Appendix F of the *State CEQA Guidelines* (22), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

4.2 METHODOLOGY

Information from the CalEEMod Version 2016.3.2 outputs for the *Airport Gateway Specific Plan Air Quality Impact Analysis* (AQIA) (23) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALEEMOD

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. (24). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual construction and operational model runs are provided in Appendix 4.1 and 4.2.

4.2.2 EMISSION FACTORS MODEL

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (25). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2017 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of

analysis, the 2021 through 2040 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. EMFAC2017 emission rates utilized in this analysis can be found in Appendix 4.3 of this report.

4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

4.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

CONSTRUCTION DURATION

Construction is expected to commence in in June 2021 and will last through December 2040. The construction schedule utilized in the analysis, shown in Table 4-1, represents a "worst-case" analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (26). The duration of construction activity was based on the 2022 opening year and information provided by the Project Applicant. As shown on Table 4-1, construction activities are anticipated to occur over the course of 234 months (23).

TABLE 4-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Demolition	06/01/2021	05/30/2022	260
Site Preparation	05/31/2022	12/12/2022	140
Grading	12/13/2022	07/22/2024	420
Building Construction	07/23/2024	12/31/2040	4,290
Paving	10/05/2038	12/31/2040	585
Architectural Coating	01/13/2032	12/31/2040	2,340

PROJECT CONSTRUCTION POWER COST

The *2020 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of $2.38, which was used to calculate the Project's total construction power cost. (27)

As shown on Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $16,477,008.39.

TABLE 4-2: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
High-Cube Transload & Short-Term Warehouse	$2.38	6,310.472	234	$3,514,428.07
Warehousing	$2.38	1,352.244	234	$753,091.73
Research and Development	$2.38	1,302.161	234	$725,199.50
Shopping Center	$2.38	205.483	234	$114,437.59
Hotel	$2.38	75.000	234	$41,769.00
Other Asphalt Surfaces	$2.38	20,340.592	234	$11,328,082.50
CONSTRUCTION POWER COST				***$16,477,008.39***

* As a conservative measure, the Power Cost is rounded up

4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4-2) by the utility provider cost per kilowatt hour (kWh) of electricity.

PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of October 1, 2020, SCE's general service rate is $0.10 per kilowatt hours (kWh) of electricity for industrial services (28). As shown on Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 172,020,759 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
High-Cube Transload & Short-Term Warehouse	$0.10	36,690,798
Warehousing	$0.10	7,862,314
Research and Development	$0.10	7,571,118
Shopping Center	$0.10	1,194,734
Hotel	$0.10	436,070
Other Asphalt Surfaces	$0.10	118,265,725
CONSTRUCTION ELECTRICTY USAGE (kWh)		***172,020,759***

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. It should be noted that most pieces of equipment would likely operate for fewer hours per day. A summary of construction equipment assumptions by phase is provided at Table 4-4.

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment[1]	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	2	8
	Excavators	5	8
	Rubber Tired Dozers	4	8
Site Preparation	Crawler Tractors	7	8
	Rubber Tired Dozers	5	8
Grading	Crawler Tractors	4	8
	Excavators	4	8
	Graders	2	8
	Rubber Tired Dozers	2	8
	Scrapers	4	8
Building Construction	Cranes	2	8
	Crawler Tractors	5	8
	Forklifts	5	8
	Generator Sets	2	8
	Welders	2	8
Paving	Pavers	4	8
	Paving Equipment	4	8
	Rollers	4	8
Architectural Coating	Air Compressors	2	8

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (29). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES (1 OF 2)

Phase Name	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Demolition	260	Concrete/Industrial Saws	81	2	8	0.73	946	13,296
		Excavators	158	5	8	0.38	2,402	33,752
		Rubber Tired Dozers	247	4	8	0.40	3,162	44,433
Site Preparation	140	Crawler Tractors	212	7	8	0.43	5,105	38,632
		Rubber Tired Dozers	247	5	8	0.40	3,952	29,907
Grading	420	Crawler Tractors	212	4	8	0.43	2,917	66,227
		Excavators	158	4	8	0.38	1,921	43,618
		Graders	187	2	8	0.41	1,227	27,850
		Rubber Tired Dozers	247	2	8	0.40	1,581	35,888
		Scrapers	367	4	8	0.48	5,637	127,978
Building Construction	4290	Cranes	231	2	8	0.29	1,072	248,551
		Crawler Tractors	212	5	8	0.43	3,646	845,571
		Forklifts	89	5	8	0.20	712	165,107
		Generator Sets	84	2	8	0.74	995	230,630
		Welders	46	2	8	0.45	331	76,803
Paving	2340	Pavers	130	4	8	0.42	1,747	220,997
		Paving Equipment	132	4	8	0.36	1,521	192,340
		Rollers	80	4	8	0.38	973	123,046
Architectural Coating	585	Air Compressors	78	2	8	0.48	599	18,943
CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)								***2,583,570***

Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region[2]. As previously presented in Table 4-5, Project construction activities would consume an estimated 2,583,570 gallons of diesel fuel.

Project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

4.3.3 CONSTRUCTION TRIPS AND VMT

Based on the CalEEMod, the Trip and VMT are the number and length (in terms VMT[3]) of on-road vehicle trips for workers, vendors, and hauling for each construction phase. The trips identified in Table 4-6 are based on the CalEEMod default parameters, with the exception of trips during demolition which have been adjusted based on information provided by the Project Applicant.

TABLE 4-6: CONSTRUCTION TRIPS AND VMT

Phase Name	Worker Trips / Day	Vendor Trips / Day	Hauling Trips / Day	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Demolition	28	247	2,278	14.7	6.9	20
Site Preparation	30	133	0	14.7	6.9	20
Grading	40	399	0	14.7	6.9	20
Building Construction	12,275	4,071	0	14.7	6.9	20
Paving	30	0	0	14.7	6.9	20
Architectural Coating	2,455	0	0	14.7	6.9	20

4.3.4 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 796,765,872 VMT during the 234 months of construction (23). Based on CalEEMod methodology, it is assumed that 50% of all vendor trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1[4]), and 25% are from light-duty-trucks (LDT2[5]). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2017 version of the EMFAC developed by CARB. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (25). EMFAC2017 was

[2] Based on Appendix A of the CalEEMod User's Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

[3] For purposes of analysis, VMT is calculated by multiplying to number of trips by the trip length.

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

run for the LDA, LDT1, and LDT2 vehicle class within the California sub-area for the 2021 through 2040 calendar years. Data from EMFAC2017 is shown in Appendix 4.4.

Table 4-7 provides an estimated annual fuel consumption resulting from LDAs related to the Project construction worker trips. Based on Table 4-7, it is estimated that 28,653 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDA (1 OF 2)

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	14	14.7	31,693	31.01	1,022
2022						
Demolition	106	14	14.7	21,815	31.93	683
Site Preparation	140	15	14.7	30,870	31.93	967
Grading	14	20	14.7	4,116	31.93	129
2023						
Grading	260	20	14.7	76,440	32.93	2,321
2024						
Grading	146	20	14.7	42,924	33.77	1,271
Building Construction	116	6,138	14.7	10,466,518	33.77	309,923
2025						
Building Construction	261	6,138	14.7	23,549,665	34.93	674,199
2026						
Building Construction	261	6,138	14.7	23,549,665	36.03	653,694
2027						
Building Construction	261	6,138	14.7	23,549,665	37.08	107
2028						
Building Construction	260	6,138	14.7	23,459,436	38.07	616,291
2029						
Building Construction	261	6,138	14.7	23,549,665	38.99	604,054
2030						
Building Construction	261	6,138	14.7	23,549,665	39.84	591,177
2031						
Building Construction	261	6,138	14.7	23,549,665	40.51	581,394

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDA (2 OF 2)

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2032						
Building Construction	262	6,138	14.7	23,639,893	41.21	573,646
Paving	254	15	14.7	56,007	41.21	1,359
2033						
Building Construction	260	6,138	14.7	23,459,436	41.84	560,633
Paving	260	15	14.7	57,330	41.84	1,370
2034						
Building Construction	260	6,138	14.7	23,459,436	42.41	553,122
Paving	260	15	14.7	57,330	42.41	1,352
2035						
Building Construction	261	6,138	14.7	23,549,665	42.92	548,734
Paving	261	15	14.7	57,551	42.92	1,341
2036						
Building Construction	262	6,138	14.7	23,639,893	43.36	545,235
Paving	262	15	14.7	57,771	43.36	1,332
2037						
Building Construction	261	6,138	14.7	23,549,665	43.74	538,443
Paving	261	15	14.7	57,551	43.74	1,316
2038						
Building Construction	261	6,138	14.7	23,549,665	44.06	534,496
Paving	261	15	14.7	57,551	44.06	1,306
Architectural Coating	64	1,228	14.7	1,155,302	44.06	26,221
2039						
Building Construction	260	6,138	14.7	23,459,436	44.33	529,188
Paving	260	15	14.7	57,330	44.33	1,293
Architectural Coating	260	1,228	14.7	4,693,416	44.33	105,872
2023						
Building Construction	261	6,138	14.7	23,549,665	44.56	528,539
Paving	261	15	14.7	57,551	44.56	1,292
Architectural Coating	261	1,228	14.7	4,711,468	44.56	105,742
PROJECT CONSTRUCTION WORKER (LDA) FUEL CONSUMPTION						***9,834,106***

Table 4-8 provides an estimated annual fuel consumption resulting from LDT1s related to the Project construction worker trips. Based on Table 4-8, it is estimated that 5,914,439 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

TABLE 4-8: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDT1 (1 OF 2)

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	7	14.7	15,847	26.03	609
2022						
Demolition	106	7	14.7	10,907	26.79	407
Site Preparation	140	8	14.7	16,464	26.79	615
Grading	14	10	14.7	2,058	26.79	77
2023						
Grading	260	10	14.7	38,220	27.61	1,385
2024						
Grading	146	10	14.7	21,462	28.27	759
Building Construction	116	3,069	14.7	5,233,259	28.27	185,102
2025						
Building Construction	261	3,069	14.7	11,774,832	29.19	403,447
2026						
Building Construction	261	3,069	14.7	11,774,832	30.05	391,879
2027						
Building Construction	261	3,069	14.7	11,774,832	30.87	381,435
2028						
Building Construction	260	3,069	14.7	11,729,718	31.64	370,702
2029						
Building Construction	261	3,069	14.7	11,774,832	32.37	363,808
2030						
Building Construction	261	3,069	14.7	11,774,832	33.04	356,395
2031						
Building Construction	261	3,069	14.7	11,774,832	33.58	350,685
2032						
Building Construction	262	3,069	14.7	11,819,947	34.15	346,132
Paving	254	8	14.7	29,870	34.15	875

TABLE 4-8: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDT1 (2 OF 2)

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2033						
Building Construction	260	3,069	14.7	11,729,718	34.67	338,307
Paving	260	8	14.7	30,576	34.67	882
2034						
Building Construction	260	3,069	14.7	11,729,718	35.15	333,668
Paving	260	8	14.7	30,576	35.15	870
2035						
Building Construction	261	3,069	14.7	11,774,832	35.59	330,872
Paving	261	8	14.7	30,694	35.59	862
2036						
Building Construction	262	3,069	14.7	11,819,947	35.98	328,493
Paving	262	8	14.7	30,811	35.98	856
2037						
Building Construction	261	3,069	14.7	11,774,832	36.34	324,048
Paving	261	8	14.7	30,694	36.34	845
2038						
Building Construction	261	3,069	14.7	11,774,832	36.66	321,228
Paving	261	8	14.7	30,694	36.66	837
Architectural Coating	64	614	14.7	577,651	36.66	15,759
2039						
Building Construction	261	3,069	14.7	11,774,832	36.66	321,228
Paving	261	8	14.7	30,694	36.66	837
Architectural Coating	64	614	14.7	577,651	36.66	15,759
2023						
Building Construction	261	3,069	14.7	11,774,832	37.20	316,568
Paving	261	8	14.7	30,694	37.20	825
Architectural Coating	261	614	14.7	2,355,734	37.20	63,334
PROJECT CONSTRUCTION WORKER (LDT1) FUEL CONSUMPTION						***5,914,439***

Table 4-9 provides an estimated annual fuel consumption resulting from LDT2s related to the Project construction worker trips. Based on Table 4-9, it is estimated that 5,984,639 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-9: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDT2 (1 OF 2)

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	7	14.7	15,847	24.23	654
2022						
Demolition	106	7	14.7	10,907	25.15	434
Site Preparation	140	8	14.7	16,464	25.15	655
Grading	14	10	14.7	2,058	25.15	82
2023						
Grading	260	10	14.7	38,220	26.11	1,464
2024						
Grading	146	10	14.7	21,462	26.93	797
Building Construction	116	3,069	14.7	5,233,259	26.93	194,335
2025						
Building Construction	261	3,069	14.7	11,774,832	27.98	420,840
2026						
Building Construction	261	3,069	14.7	11,774,832	28.99	406,109
2027						
Building Construction	261	3,069	14.7	11,774,832	29.97	392,914
2028						
Building Construction	260	3,069	14.7	11,729,718	30.89	379,779
2029						
Building Construction	261	3,069	14.7	11,774,832	31.75	370,871
2030						
Building Construction	261	3,069	14.7	11,774,832	32.56	361,679
2031						
Building Construction	261	3,069	14.7	11,774,832	33.22	354,448
2032						
Building Construction	262	3,069	14.7	11,819,947	33.91	348,533
Paving	254	8	14.7	29,870	33.91	881

TABLE 4-9: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDT2 (2 OF 2)

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2033						
Building Construction	260	3,069	14.7	11,729,718	34.55	339,500
Paving	260	8	14.7	30,576	34.55	885
2034						
Building Construction	260	3,069	14.7	11,729,718	35.13	333,885
Paving	260	8	14.7	30,576	35.13	870
2035						
Building Construction	261	3,069	14.7	11,774,832	35.65	330,248
Paving	261	8	14.7	30,694	35.65	861
2036						
Building Construction	262	3,069	14.7	11,819,947	36.12	327,219
Paving	262	8	14.7	30,811	36.12	853
2037						
Building Construction	261	3,069	14.7	11,774,832	36.53	322,294
Paving	261	8	14.7	30,694	36.53	840
2038						
Building Construction	261	3,069	14.7	11,774,832	36.89	319,149
Paving	261	8	14.7	30,694	36.89	832
Architectural Coating	64	614	14.7	577,651	36.89	15,657
2039						
Building Construction	260	3,069	14.7	11,729,718	37.21	315,270
Paving	260	8	14.7	30,576	37.21	822
Architectural Coating	260	614	14.7	2,346,708	37.21	63,075
2023						
Building Construction	261	3,069	14.7	11,774,832	37.47	314,222
Paving	261	8	14.7	30,694	37.47	819
Architectural Coating	261	614	14.7	2,355,734	37.47	62,865
PROJECT CONSTRUCTION WORKER (LDT2) FUEL CONSUMPTION						***5,984,639***

4.3.5 CONSTRUCTION VENDOR AND HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor (vehicles that deliver materials to the site during construction) and hauling trips would generate an estimated 3,199,982,428 VMT along area roadways for the Project over the duration of construction activity (23). It is assumed

that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% are from heavy-heavy duty trucks (HHDT), and 100% of hauling trips are from HHDT. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (23). Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2017. EMFAC2017 was run for the MHDT and HHDT vehicle classes within the California sub-area for the 2021 through 2040 calendar years. Data from EMFAC2017 is shown in Appendix 4.4.

Based on Table 4-10, it is estimated that 5,228,681 gallons of fuel will be consumed related to construction vendor trips (MHDTs) during full construction of the Project.

TABLE 4-10: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES – MHDT (1 OF 2)

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	124	6.9	131,762	9.73	13,543
2022						
Demolition	106	124	6.9	90,694	10.04	9,029
Site Preparation	140	67	6.9	64,722	10.04	6,444
Grading	14	200	6.9	19,320	10.04	1,923
2023						
Grading	260	200	6.9	358,800	10.45	34,325
2024						
Grading	146	200	6.9	201,480	10.50	19,193
Building Construction	116	2,036	6.9	1,629,614	10.50	155,235
2025						
Building Construction	261	2,036	6.9	3,666,632	10.68	343,388
2026						
Building Construction	261	2,036	6.9	3,666,632	10.85	337,787
2027						
Building Construction	261	2,036	6.9	3,666,632	11.05	331,839
2028						
Building Construction	260	2,036	6.9	3,652,584	11.23	325,207
2029						
Building Construction	261	2,036	6.9	3,666,632	11.40	321,568
2030						
Building Construction	261	2,036	6.9	3,666,632	11.56	317,053

TABLE 4-10: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES – MHDT (2 OF 2)

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2031						
Building Construction	261	2,036	6.9	3,666,632	11.67	314,138
2032						
Building Construction	262	2,036	6.9	3,680,681	11.81	311,738
2033						
Building Construction	260	2,036	6.9	3,652,584	11.93	306,141
2034						
Building Construction	260	2,036	6.9	3,652,584	12.05	303,154
2035						
Building Construction	261	2,036	6.9	3,666,632	12.16	301,607
2036						
Building Construction	262	2,036	6.9	3,680,681	12.25	300,395
2037						
Building Construction	261	2,036	6.9	3,666,632	12.35	296,931
2038						
Building Construction	261	2,036	6.9	3,666,632	12.44	294,852
2039						
Building Construction	260	2,036	6.9	3,652,584	12.51	291,862
2023						
Building Construction	261	2,036	6.9	3,666,632	12.59	291,329
PROJECT CONSTRUCTION VENDOR (MHDT) FUEL CONSUMPTION						***5,228,681***

Tables 4-11 shows the estimated fuel economy of HHDTs accessing the Project site. Based on Tables 4-11, fuel consumption from construction vendor and hauling trips (HHDTs) will total approximately 502,067,851 gallons.

It should be noted that Project construction vendor and hauling trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-11: CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES – HHDT (1 OF 2)

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Vendor						
2021						
Demolition	154	124	6.9	131,762	6.16	21,400
2022						
Demolition	106	124	6.9	90,694	6.33	14,329
Site Preparation	140	67	6.9	64,722	6.33	10,225
Grading	14	200	6.9	19,320	6.33	3,052
2023						
Grading	260	200	6.9	358,800	6.70	53,566
2024						
Grading	146	200	6.9	201,480	6.77	29,778
Building Construction	116	2,036	6.9	1,629,614	6.77	240,847
2025						
Building Construction	261	2,036	6.9	3,666,632	6.89	532,088
2026						
Building Construction	261	2,036	6.9	3,666,632	7.03	521,640
2027						
Building Construction	261	2,036	6.9	3,666,632	7.18	510,571
2028						
Building Construction	260	2,036	6.9	3,652,584	7.34	497,836
2029						
Building Construction	261	2,036	6.9	3,666,632	7.50	488,972
2030						
Building Construction	261	2,036	6.9	3,666,632	7.66	478,385
2031						
Building Construction	261	2,036	6.9	3,666,632	7.82	468,873
2032						
Building Construction	262	2,036	6.9	3,680,681	7.98	461,301
2033						
Building Construction	260	2,036	6.9	3,652,584	8.13	449,221
2034						
Building Construction	260	2,036	6.9	3,652,584	8.28	441,175

TABLE 4-11: CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES – HHDT (1 OF 2)

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Vendor						
2035						
Building Construction	261	2,036	6.9	3,666,632	8.42	435,473
2036						
Building Construction	262	2,036	6.9	3,680,681	8.55	430,615
2037						
Building Construction	261	2,036	6.9	3,666,632	8.67	423,034
2038						
Building Construction	261	2,036	6.9	3,666,632	8.78	417,797
2039						
Building Construction	260	2,036	6.9	3,652,584	8.87	411,628
2023						
Building Construction	261	2,036	6.9	3,666,632	8.96	409,304
Hauling						
2021						
Demolition	154	591,868	20	1,822,953,440	6.16	296,076,913
2022						
Demolition	106	591,868	20	1,254,760,160	6.33	198,239,829
PROJECT CONSTRUCTION VENDOR/HAULING (HHDT) FUEL CONSUMPTION						***502,067,851***

4.3.6 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air

Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that"grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by passenger car and truck vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site.

LIGHT-DUTY AUTOS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 53,883,015 annual VMT along area roadways for all LDAs with full build-out of the Project (23). Table 4-12 provides an estimated range of annual fuel consumption resulting from Project generated LDAs. Based on

Table 4-12, it is estimated that 1,209,329 gallons of fuel will be consumed from Project generated LDA trips.

TABLE 4-12: PROJECT-GENERATED LDA VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
53,883,015	44.56	1,209,329

LIGHT-DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 3,099,016 annual VMT along area roadways for all Light-Duty Trucks (LDT1)[6] vehicles with full build-out of the Project (23). Table 4-13 provides an estimated range of annual fuel consumption resulting from Project generated LDT1s. Based on Table 4-13, it is estimated that 83,318 gallons of fuel will be consumed from Project generated LDT1 trips.

TABLE 4-13: PROJECT-GENERATED LDT1 VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
3,099,016	37.20	83,318

Additionally, the Project would generate an estimated 17,468,255 annual VMT along area roadways for all LDT2[7] vehicles with full build-out of the Project (23). Table 4-14 provides an estimated range of annual fuel consumption resulting from Project generated LDT2s. Based on Table 4-14, it is estimated that 466,157 gallons of fuel will be consumed from Project generated LDT2 trips.

TABLE 4-14: PROJECT-GENERATED LDT2 VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
17,468,255	37.47	466,157

MEDIUM-DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 9,478,777 annual VMT along area roadways for all Medium-Duty Trucks (MDV) vehicles with full build-out of the Project (23). Table 4-15 provides an estimated range of annual fuel consumption resulting from Project generated MDVs. Based on Table 4-15, it is estimated that 306,376 gallons of fuel will be consumed from Project generated MDV trips.

[6] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[7] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

TABLE 4-15: PROJECT-GENERATED MDV VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
9,478,777	30.94	306,376

LIGHT-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 3,328,365 annual VMT along area roadways for all Light-Heavy-Duty Trucks (LHDT1)[8] vehicles with full build-out of the Project (23). Table 4-16 provides an estimated range of annual fuel consumption resulting from Project generated LHDT1s. Based on Table 4-16, it is estimated that 194,930 gallons of fuel will be consumed from Project generated LHDT1 trips.

TABLE 4-16: PROJECT-GENERATED LHDT1 TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
3,328,365	17.07	194,930

Additionally, the Project would generate an estimated 1,499,137 annual VMT along area roadways for all LHDT2[9] vehicles with full build-out of the Project (23). Table 4-17 provides an estimated range of annual fuel consumption resulting from Project generated LHDT2s. Based on Table 4-17, it is estimated that 84,716 gallons of fuel will be consumed from Project generated LHDT2 trips.

TABLE 4-17: PROJECT-GENERATED LHDT2 TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
1,499,137	17.70	84,716

MEDIUM-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 6,550,809 annual VMT along area roadways for all MHDTs with full build-out of the Project (23). Table 4-18 provides an estimated range of annual fuel consumption resulting from Project generated MHDTs. Based on Table 4-18, it is estimated that 520,489 gallons of fuel will be consumed from Project generated MHDT trips.

[8] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.
[9] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

TABLE 4-18: PROJECT-GENERATED MHDT TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
6,550,809	12.59	520,489

HEAVY-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 30,698,497 annual VMT along area roadways for all HHDTs with full build-out of the Project (23). Table 4-19 provides an estimated range of annual fuel consumption resulting from Project generated HHDTs. Based on Table 4-19, it is estimated that 3,426,858 gallons of fuel will be consumed from Project generated HHDT trips.

TABLE 4-19: PROJECT-GENERATED HHDT TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
30,698,497	8.96	3,426,858

OTHER BUSES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 82,417 annual VMT along area roadways for all Other Buses (OBUS) with full build-out of the Project (23). Table 4-20 provides an estimated range of annual fuel consumption resulting from Project generated OBUS vehicles. Based on Table 4-20, it is estimated that 10,224 gallons of fuel will be consumed from Project generated OBUS trips.

TABLE 4-20: PROJECT-GENERATED OBUS TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
82,417	8.06	10,224

URBAN BUSES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 76,100 annual VMT along area roadways for all Urban Buses (UBUS) with full build-out of the Project (23). Table 4-21 provides an estimated range of annual fuel consumption resulting from Project generated UBUS vehicles. Based on Table 4-21, it is estimated that 15,710 gallons of fuel will be consumed from Project generated UBUS trips.

TABLE 4-21: PROJECT-GENERATED UBUS TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
76,100	4.84	15,710

MOTORCYCLES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 498,499 annual VMT along area roadways for all Motorcycles (MCY) with full build-out of the Project (23). Table 4-22 provides an estimated range of annual fuel consumption resulting from Project generated MCY vehicles. Based on Table 4-22, it is estimated that 13,605 gallons of fuel will be consumed from Project generated MCY trips.

TABLE 4-22: PROJECT-GENERATED MCY TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
498,499	36.64	13,605

SCHOOL BUSES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 43,860 annual VMT along area roadways for all School Buses (SBUS) with full build-out of the Project (23). Table 4-23 provides an estimated range of annual fuel consumption resulting from Project generated SBUS vehicles. Based on Table 4-23, it is estimated that 4,265 gallons of fuel will be consumed from Project generated SBUS trips.

TABLE 4-23: PROJECT-GENERATED SBUS TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
43,860	10.28	4,265

MOTOR HOMES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 31,167 annual VMT along area roadways for all Motor Homes (MH) with full build-out of the Project (23). Table 4-24 provides an estimated range of annual fuel consumption resulting from Project generated MH vehicles. Based on Table 4-24, it is estimated that 4,194 gallons of fuel will be consumed from Project generated MH trips.

TABLE 4-24: PROJECT-GENERATED MH TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
31,167	7.43	4,194

As summarized on Table 4-25 the Project will result in 126,737,915 annual VMT and an estimated annual fuel consumption of 6,340,171 gallons of fuel.

TABLE 4-25: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)

Vehicle Type	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	53,883,015	1,209,329
LDT1	3,099,016	83,318
LDT2	17,468,255	466,157
MDV	9,478,777	306,376
LHDT1	3,328,365	194,930
LHDT2	1,499,137	84,716
MHDT	6,550,809	520,489
HHDT	30,698,497	3,426,858
OBUS	82,417	10,224
UBUS	76,100	15,710
MCY	498,499	13,605
SBUS	43,860	4,265
MH	31,167	4,194
TOTAL (ALL VEHICLES)	***126,737,915***	***6,340,171***

4.4.2 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied to the Project by SCE. As previously stated, the analysis herein assumes compliance with the 2019 Title 24 Standards. As such, the CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard. Annual natural gas and electricity demands of the Project are summarized in Table 4-26 and provided in Appendices 4.3.

TABLE 4-26: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Natural Gas Demand	kBTU/year
High-Cube Transload & Short-Term Warehouse	1,933,710
Warehousing	9,023,970
Research and Development	36,304,200
Shopping Center	336,992
Hotel	3,260,250
Other Asphalt Surfaces	0
TOTAL PROPOSED PROJECT NATURAL GAS DEMAND	***50,859,122***
Electricity Demand	**kWh/year**
High-Cube Transload & Short-Term Warehouse	2,569,260
Warehousing	11,989,900
Research and Development	11,211,600
Shopping Center	1,968,530
Hotel	1,092,750
Other Asphalt Surfaces	0
TOTAL PROJECT ELECTRICITY DEMAND	***28,832,040***

kBTU – kilo-British Thermal Units

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Standards Code).

ENHANCED VEHICLE FUEL EFFICIENCIES

Project annual fuel consumption estimates presented previously in Table 4-25 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

The Property Owner/Developer would comply with the County's transportation control measures development standards (see Chapter 83.14.030 of the Code of Ordinances).

4.5 SUMMARY

4.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $16,477,008.39. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 172,020,759 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 2,583,570 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 21,733,183 gallons of fuel. Additionally, fuel consumption from construction vendor and hauling trips (MHDTs and HHDTs) will total approximately 507,296,532 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2019 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (18). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 OPERATIONAL ENERGY DEMANDS

TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 6,340,171 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other residential and commercial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed., 2017); and CalEEMod. As such, Project operations would not

result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other residential and commercial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25 percent by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023 nearly all trucks and buses will need to have 2010 model year engines or equivalent (30).
- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

The proposed Project would implement project design features that would facilitate the accessibility, parking, and loading of trucks on site.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green

Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 50,859,122 kBTU/year of natural gas; and 28,832,040 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SCE. The Project proposes conventional residential and commercial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other residential and commercial uses of similar scale and configuration.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

5.2 ENERGY IMPACT 2

Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The Project's consistency with the applicable state and local plans is discussed below.

CONSISTENCY WITH ISTEA

Transportation and access to the Project site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site.

CONSISTENCY WITH TEA-21

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

CONSISTENCY WITH IEPR

Electricity may be provided to the Project by SCE. SCE's *Clean Power and Electrification Pathway* (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2019 IEPR.

CONSISTENCY WITH STATE OF CALIFORNIA ENERGY PLAN

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.

CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020. It should be noted that the analysis herein assumes compliance with the 2019 Title 24 Standards. It should be noted that the CEC anticipates that nonresidential buildings will use approximately 30% less energy compared to the prior code (19). As such, the CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard.

CONSISTENCY WITH AB 1493

AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493.

CONSISTENCY WITH RPS

California's Renewable Portfolio Standard is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS.

CONSISTENCY WITH SB 350

The proposed Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected.

5.1.3 ENERGY IMPACT 3

Would the Project achieve the goal of energy conservation by:

- ***Decreasing overall per capita energy consumption.***
- ***Decreasing reliance on fossil fuels such as coal, natural gas and oil.***
- ***Increasing reliance on renewable energy sources.***

As previously stated, the proposed Project is subject to California Building Code requirements. New buildings must achieve compliance with 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standards requirements. The CEC anticipates that nonresidential buildings will use approximately 30% less energy due to lighting upgrades compared to the prior code (19). It should be noted that though the Project will comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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6 REFERENCES

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Airport Gateway Specific Plan. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 4.1:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUT

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Airport Gateway Specific Plan (Construction - Unmitigated)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Unrefrigerated Warehouse-No Rail	7,662.72	1000sqft	175.91	7,662,716.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Unrefrigerated Warehouse - No Rail represents the sum of the proposed Warehousing and High-Cube Transload & Short-Term Warehouse uses.

Construction Phase - Construction Schedule adjusted to meet the 2040 Operational Year.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Trips and VMT - CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips were ratioed between each phase based on the number of days.

Demolition - Quantity of debis based on total existing use.

Grading - Analysis assumes that up to 20 acres will be disturbed per day.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - Rule 403

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tblConstructionPhase	NumDays	10,850.00	4,290.00
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Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

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Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

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tblVehicleEF	LDA	3.2070e-003	1.9787e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8357e-003
tblVehicleEF	LDA	3.6200e-004	3.6456e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8922e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8559e-004
tblVehicleEF	LDT1	1.4900e-003	0.02

tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2238e-003
tblVehicleEF	LDT1	4.7600e-004	4.4514e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0098e-003
tblVehicleEF	LDT1	0.04	0.22

tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0511e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3808e-003
tblVehicleEF	LDT1	4.7400e-004	4.4141e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4914e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6736e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6679e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1945e-003

tblVehicleEF	LDT1	4.7500e-004	4.4513e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9273e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0698e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4642e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2094e-003
tblVehicleEF	LDT2	5.3500e-004	4.4318e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0433e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2112e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8614e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3508e-003
tblVehicleEF	LDT2	5.3400e-004	4.3843e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0478e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003

tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3961e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1829e-003
tblVehicleEF	LDT2	5.3500e-004	4.4322e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4148e-003
tblVehicleEF	LHD1	1.8710e-003	1.6435e-003
tblVehicleEF	LHD1	5.1310e-003	5.8039e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12

tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
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tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	1.3480e-003	1.2626e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4200e-004	8.4166e-005
tblVehicleEF	LHD1	1.3480e-003	1.2626e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4233e-003
tblVehicleEF	LHD1	1.8860e-003	1.6577e-003
tblVehicleEF	LHD1	4.8800e-003	5.5808e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003

tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4100e-004	8.3568e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4157e-003
tblVehicleEF	LHD1	1.8730e-003	1.6448e-003
tblVehicleEF	LHD1	5.0830e-003	5.7801e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	1.2380e-003	1.1412e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4200e-004	8.4110e-005
tblVehicleEF	LHD1	1.2380e-003	1.1412e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9128e-003

tblVehicleEF	LHD2	2.0670e-003	3.2881e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005
tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01

tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6628e-005
tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1616e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005

tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	1.1630e-003	1.3297e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6282e-005
tblVehicleEF	LHD2	1.1630e-003	1.3297e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2015e-003
tblVehicleEF	LHD2	1.4870e-003	1.9136e-003
tblVehicleEF	LHD2	2.0640e-003	3.2752e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20

tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005
tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6597e-005

tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27

tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1152e-003
tblVehicleEF	MCY	6.4400e-004	5.6565e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78

tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1154e-003
tblVehicleEF	MCY	6.1700e-004	5.4526e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003

tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1084e-003
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tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1646e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004

tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9199e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6844e-003
tblVehicleEF	MDV	7.1700e-004	5.3168e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7024e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3183e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13

tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8243e-003
tblVehicleEF	MDV	7.1400e-004	5.2676e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3607e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1407e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40

tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8432e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6582e-003
tblVehicleEF	MDV	7.1600e-004	5.3173e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5895e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5726e-003
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tblVehicleEF	MH	0.56	2.47
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tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

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tblVehicleEF	MH	3.6990e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
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tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
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tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
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tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7892e-003

tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
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tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1603e-004
tblVehicleEF	MHD	0.03	4.4821e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.0618e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	3.2000e-005	6.7563e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003

tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	6.6000e-004	2.1286e-004
tblVehicleEF	MHD	0.02	7.2264e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4044e-004
tblVehicleEF	MHD	0.03	7.5368e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5724e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1400e-004	4.2756e-005
tblVehicleEF	MHD	6.6000e-004	2.1286e-004
tblVehicleEF	MHD	0.02	7.2264e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4044e-004
tblVehicleEF	MHD	0.03	8.8142e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2167e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28

tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2390e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	2.7000e-005	5.9691e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	1.2630e-003	3.8078e-004
tblVehicleEF	MHD	0.02	7.8581e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5710e-004
tblVehicleEF	MHD	0.03	7.5536e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5244e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1100e-004	4.2367e-005
tblVehicleEF	MHD	1.2630e-003	3.8078e-004
tblVehicleEF	MHD	0.02	7.8581e-003
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	8.6500e-004	2.5710e-004
tblVehicleEF	MHD	0.03	8.8387e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3476e-003
tblVehicleEF	MHD	1.5960e-003	5.1571e-004
tblVehicleEF	MHD	0.03	4.4457e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.1980e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	3.9000e-005	7.8434e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	6.1700e-004	1.9275e-004

tblVehicleEF	MHD	0.02	7.6282e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3926e-004
tblVehicleEF	MHD	0.03	7.5375e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6385e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1400e-004	4.2702e-005
tblVehicleEF	MHD	6.1700e-004	1.9275e-004
tblVehicleEF	MHD	0.02	7.6282e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3926e-004
tblVehicleEF	MHD	0.03	8.8152e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
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tblVehicleEF	OBUS	3.1180e-003	1.7929e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92

tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1036e-004
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	1.0000e-005	1.0558e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	1.7340e-003	1.8922e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5525e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8080e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8922e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5525e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23

tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5094e-003
tblVehicleEF	OBUS	3.1850e-003	1.8323e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
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tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	9.0000e-006	9.3819e-005
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	3.3210e-003	3.3605e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7636e-003

tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7315e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5296e-004
tblVehicleEF	OBUS	3.3210e-003	3.3605e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7636e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3293e-003
tblVehicleEF	OBUS	3.1250e-003	1.7943e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
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tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	0.31	0.90
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tblVehicleEF	OBUS	0.13	0.13

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	1.3000e-005	1.2183e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	1.6680e-003	1.7383e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9136e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.6680e-003	1.7383e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2442e-003

tblVehicleEF	SBUS	0.05	4.9266e-003
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tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3785e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	1.7600e-004	3.2323e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	4.3930e-003	1.1603e-003
tblVehicleEF	SBUS	0.03	7.6464e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9448e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03

tblVehicleEF	SBUS	0.01	2.6276e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.7300e-004	3.8011e-005
tblVehicleEF	SBUS	4.3930e-003	1.1603e-003
tblVehicleEF	SBUS	0.03	7.6464e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9448e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2656e-003
tblVehicleEF	SBUS	0.04	4.1272e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
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tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9853e-004
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005

tblVehicleEF	SBUS	1.4800e-004	2.8562e-004
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tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
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tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
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tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.4600e-004	3.5137e-005
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tblVehicleEF	SBUS	0.03	7.8887e-003
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tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2429e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
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tblVehicleEF	SBUS	0.92	1.40
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tblVehicleEF	SBUS	2.2300e-004	3.9215e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	2.1400e-004	3.7518e-004
tblVehicleEF	SBUS	0.32	0.32
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tblVehicleEF	SBUS	0.02	0.06
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tblVehicleEF	SBUS	9.7650e-003	2.6646e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
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tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
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tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
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tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
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tblVehicleEF	UBUS	2.9750e-003	8.7938e-004
tblVehicleEF	UBUS	0.07	0.07

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tblVehicleEF	UBUS	0.77	0.02
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tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
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tblVehicleEF	UBUS	8.8620e-003	3.5259e-003

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tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
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tblVehicleEF	UBUS	8.8620e-003	3.5259e-003
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tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
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tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
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tblVehicleEF	UBUS	0.02	0.05
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tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
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tblVehicleEF	UBUS	0.02	0.05
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tblVehicleTrips	CC_TL	8.40	0.00
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tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
tblVehicleTrips	PR_TP	82.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	3,805,015.50	0.00
tblWater	IndoorWaterUseRate	15,220,421.71	0.00
tblWater	IndoorWaterUseRate	640,264,190.29	0.00
tblWater	IndoorWaterUseRate	1,772,004,000.00	0.00
tblWater	OutdoorWaterUseRate	422,779.50	0.00
tblWater	OutdoorWaterUseRate	9,328,645.57	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.5917	47.4685	10.1025	0.1455	42.6545	0.3480	43.0025	6.9959	0.3266	7.3225	0.0000	13,968.6208	13,968.6208	0.8992	0.0000	13,991.1008
2022	1.6328	37.4448	9.7822	0.1103	38.7855	0.4798	39.2653	6.9833	0.4452	7.4284	0.0000	10,524.8881	10,524.8881	0.8490	0.0000	10,546.1123
2023	1.1336	14.5399	8.2759	0.0324	6.4039	0.4382	6.8421	1.4511	0.4033	1.8544	0.0000	2,947.8951	2,947.8951	0.5982	0.0000	2,962.8509
2024	4.0037	28.9459	29.7976	0.1472	14.8439	0.3990	15.2429	3.5286	0.3693	3.8979	0.0000	13,631.1535	13,631.1535	0.8832	0.0000	13,653.2333
2025	7.2056	46.3051	52.9732	0.2838	20.9134	0.3413	21.2547	5.6315	0.3181	5.9496	0.0000	26,354.6603	26,354.6603	1.1984	0.0000	26,384.6198
2026	6.8874	45.7221	49.7984	0.2779	20.9134	0.3374	21.2508	5.6314	0.3145	5.9460	0.0000	25,827.4129	25,827.4129	1.1683	0.0000	25,856.6211
2027	6.5814	45.1888	46.9903	0.2728	20.9134	0.3314	21.2448	5.6314	0.3090	5.9405	0.0000	25,364.8889	25,364.8889	1.1402	0.0000	25,393.3944
2028	6.2452	44.5669	44.3805	0.2673	20.8332	0.3229	21.1561	5.6099	0.3011	5.9110	0.0000	24,864.8798	24,864.8798	1.1099	0.0000	24,892.6270
2029	5.9312	44.3139	42.1992	0.2644	20.9134	0.3173	21.2307	5.6314	0.2960	5.9274	0.0000	24,606.3597	24,606.3597	1.0893	0.0000	24,633.5929
2030	5.5888	41.4873	39.9212	0.2627	20.9133	0.1787	21.0920	5.6314	0.1710	5.8024	0.0000	24,432.3581	24,432.3581	0.8794	0.0000	24,454.3438
2031	5.2407	41.3037	38.1120	0.2602	20.9133	0.1735	21.0869	5.6314	0.1663	5.7977	0.0000	24,212.4229	24,212.4229	0.8591	0.0000	24,233.8998
2032	8.3147	41.8139	42.1108	0.2819	24.4120	0.1889	24.6009	6.5609	0.1810	6.7419	0.0000	26,175.2247	26,175.2247	0.8749	0.0000	26,197.0967
2033	8.0324	41.2050	40.1654	0.2779	24.3325	0.1825	24.5150	6.5392	0.1750	6.7142	0.0000	25,812.1395	25,812.1395	0.8506	0.0000	25,833.4043
2034	7.7631	40.9429	38.4773	0.2757	24.3325	0.1773	24.5098	6.5392	0.1702	6.7094	0.0000	25,616.8141	25,616.8141	0.8335	0.0000	25,637.6521
2035	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6215	25,549.6215	0.8176	0.0000	25,570.0622
2036	7.5372	40.4200	37.3271	0.2760	24.5197	0.1447	24.6644	6.5895	0.1380	6.7275	0.0000	25,647.5127	25,647.5127	0.8208	0.0000	25,668.0318
2037	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6215	25,549.6215	0.8176	0.0000	25,570.0622
2038	7.6500	40.5788	38.2102	0.2768	24.4366	0.1562	24.5928	6.5672	0.1495	6.7166	0.0000	25,709.7641	25,709.7641	0.8236	0.0000	25,730.3549

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2039	8.0550	41.3832	41.2084	0.2814	24.3753	0.1925	24.5677	6.5506	0.1857	6.7363	0.0000	26,102.3098	26,102.3098	0.8389	0.0000	26,123.2818
2040	7.2097	40.3474	37.0402	0.2770	24.4691	0.1472	24.6163	6.5758	0.1417	6.7175	0.0000	25,704.3197	25,704.3197	0.7950	0.0000	25,724.1950
Maximum	**8.3147**	**47.4685**	**52.9732**	**0.2838**	**42.6545**	**0.4798**	**43.0025**	**6.9959**	**0.4452**	**7.4284**	**0.0000**	**26,354.6603**	**26,354.6603**	**1.1984**	**0.0000**	**26,384.6198**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.5917	47.4685	10.1025	0.1455	19.5147	0.3480	19.8627	3.4924	0.3266	3.8189	0.0000	13,968.6202	13,968.6202	0.8992	0.0000	13,991.1003
2022	1.6328	37.4448	9.7822	0.1103	17.8983	0.4798	18.3781	3.4455	0.4452	3.8907	0.0000	10,524.8869	10,524.8869	0.8490	0.0000	10,546.1110
2023	1.1336	14.5399	8.2759	0.0324	2.7318	0.4382	3.1700	0.6327	0.4033	1.0361	0.0000	2,947.8932	2,947.8932	0.5982	0.0000	2,962.8490
2024	4.0037	28.9459	29.7976	0.1472	11.5905	0.3990	11.9896	2.9404	0.3693	3.3097	0.0000	13,631.1519	13,631.1519	0.8832	0.0000	13,653.2317
2025	7.2056	46.3051	52.9732	0.2838	20.9134	0.3413	21.2547	5.6315	0.3181	5.9496	0.0000	26,354.6593	26,354.6593	1.1984	0.0000	26,384.6187
2026	6.8874	45.7221	49.7984	0.2779	20.9134	0.3374	21.2508	5.6314	0.3145	5.9460	0.0000	25,827.4119	25,827.4119	1.1683	0.0000	25,856.6201
2027	6.5814	45.1888	46.9903	0.2728	20.9134	0.3314	21.2448	5.6314	0.3090	5.9405	0.0000	25,364.8879	25,364.8879	1.1402	0.0000	25,393.3934
2028	6.2452	44.5669	44.3805	0.2673	20.8332	0.3229	21.1561	5.6099	0.3011	5.9110	0.0000	24,864.8788	24,864.8788	1.1099	0.0000	24,892.6260
2029	5.9312	44.3139	42.1992	0.2644	20.9134	0.3173	21.2307	5.6314	0.2960	5.9274	0.0000	24,606.3586	24,606.3586	1.0893	0.0000	24,633.5919

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	5.5888	41.4873	39.9212	0.2627	20.9133	0.1787	21.0920	5.6314	0.1710	5.8024	0.0000	24,432.3569	24,432.3569	0.8794	0.0000	24,454.3426
2031	5.2407	41.3037	38.1120	0.2602	20.9133	0.1735	21.0869	5.6314	0.1663	5.7977	0.0000	24,212.4217	24,212.4217	0.8591	0.0000	24,233.8986
2032	8.3147	41.8139	42.1108	0.2819	24.4120	0.1889	24.6009	6.5609	0.1810	6.7419	0.0000	26,175.2234	26,175.2234	0.8749	0.0000	26,197.0954
2033	8.0324	41.2050	40.1654	0.2779	24.3325	0.1825	24.5150	6.5392	0.1750	6.7142	0.0000	25,812.1382	25,812.1382	0.8506	0.0000	25,833.4030
2034	7.7631	40.9429	38.4773	0.2757	24.3325	0.1773	24.5098	6.5392	0.1702	6.7094	0.0000	25,616.8129	25,616.8129	0.8335	0.0000	25,637.6509
2035	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6202	25,549.6202	0.8176	0.0000	25,570.0609
2036	7.5372	40.4200	37.3271	0.2760	24.5197	0.1447	24.6644	6.5895	0.1380	6.7275	0.0000	25,647.5114	25,647.5114	0.8208	0.0000	25,668.0305
2037	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6202	25,549.6202	0.8176	0.0000	25,570.0609
2038	7.6500	40.5788	38.2102	0.2768	24.4366	0.1562	24.5928	6.5672	0.1495	6.7166	0.0000	25,709.7626	25,709.7626	0.8236	0.0000	25,730.3534
2039	8.0550	41.3832	41.2084	0.2814	24.3753	0.1925	24.5677	6.5506	0.1857	6.7363	0.0000	26,102.3078	26,102.3078	0.8389	0.0000	26,123.2797
2040	7.2097	40.3474	37.0402	0.2770	24.4691	0.1472	24.6163	6.5758	0.1417	6.7175	0.0000	25,704.3177	25,704.3177	0.7950	0.0000	25,724.1930
Maximum	**8.3147**	**47.4685**	**52.9732**	**0.2838**	**24.5197**	**0.4798**	**24.6644**	**6.5895**	**0.4452**	**6.7419**	**0.0000**	**26,354.6593**	**26,354.6593**	**1.1984**	**0.0000**	**26,384.6187**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**10.87**	**0.00**	**10.75**	**7.20**	**0.00**	**6.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2021	8-31-2021	20.5115	20.5115
2	9-1-2021	11-30-2021	20.3399	20.3399
3	12-1-2021	2-28-2022	18.9131	18.9131

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4	**3-1-2022**	**5-31-2022**	18.4833	18.4833
5	**6-1-2022**	**8-31-2022**	3.4948	3.4948
6	**9-1-2022**	**11-30-2022**	3.4543	3.4543
7	**12-1-2022**	**2-28-2023**	3.9433	3.9433
8	**3-1-2023**	**5-31-2023**	3.9544	3.9544
9	**6-1-2023**	**8-31-2023**	3.9581	3.9581
10	**9-1-2023**	**11-30-2023**	3.9078	3.9078
11	**12-1-2023**	**2-29-2024**	3.7847	3.7847
12	**3-1-2024**	**5-31-2024**	3.7709	3.7709
13	**6-1-2024**	**8-31-2024**	8.1880	8.1880
14	**9-1-2024**	**11-30-2024**	13.7439	13.7439
15	**12-1-2024**	**2-28-2025**	13.2971	13.2971
16	**3-1-2025**	**5-31-2025**	13.4734	13.4734
17	**6-1-2025**	**8-31-2025**	13.4895	13.4895
18	**9-1-2025**	**11-30-2025**	13.3112	13.3112
19	**12-1-2025**	**2-28-2026**	13.0039	13.0039
20	**3-1-2026**	**5-31-2026**	13.2472	13.2472
21	**6-1-2026**	**8-31-2026**	13.2637	13.2637
22	**9-1-2026**	**11-30-2026**	13.0871	13.0871
23	**12-1-2026**	**2-28-2027**	12.7913	12.7913
24	**3-1-2027**	**5-31-2027**	13.0363	13.0363
25	**6-1-2027**	**8-31-2027**	13.0535	13.0535
26	**9-1-2027**	**11-30-2027**	12.8777	12.8777
27	**12-1-2027**	**2-29-2028**	12.7340	12.7340
28	**3-1-2028**	**5-31-2028**	12.8433	12.8433
29	**6-1-2028**	**8-31-2028**	12.8615	12.8615
30	**9-1-2028**	**11-30-2028**	12.6860	12.6860

31	**12-1-2028**	**2-28-2029**	12.4034	12.4034
32	**3-1-2029**	**5-31-2029**	12.6495	12.6495
33	**6-1-2029**	**8-31-2029**	12.6688	12.6688
34	**9-1-2029**	**11-30-2029**	12.4931	12.4931
35	**12-1-2029**	**2-28-2030**	11.8226	11.8226
36	**3-1-2030**	**5-31-2030**	11.8493	11.8493
37	**6-1-2030**	**8-31-2030**	11.8699	11.8699
38	**9-1-2030**	**11-30-2030**	11.7004	11.7004
39	**12-1-2030**	**2-28-2031**	11.4617	11.4617
40	**3-1-2031**	**5-31-2031**	11.7103	11.7103
41	**6-1-2031**	**8-31-2031**	11.7319	11.7319
42	**9-1-2031**	**11-30-2031**	11.5619	11.5619
43	**12-1-2031**	**2-29-2032**	11.9870	11.9870
44	**3-1-2032**	**5-31-2032**	12.6040	12.6040
45	**6-1-2032**	**8-31-2032**	12.6241	12.6241
46	**9-1-2032**	**11-30-2032**	12.4473	12.4473
47	**12-1-2032**	**2-28-2033**	12.1842	12.1842
48	**3-1-2033**	**5-31-2033**	12.4398	12.4398
49	**6-1-2033**	**8-31-2033**	12.4614	12.4614
50	**9-1-2033**	**11-30-2033**	12.2835	12.2835
51	**12-1-2033**	**2-28-2034**	12.0382	12.0382
52	**3-1-2034**	**5-31-2034**	12.3015	12.3015
53	**6-1-2034**	**8-31-2034**	12.3238	12.3238
54	**9-1-2034**	**11-30-2034**	12.1459	12.1459
55	**12-1-2034**	**2-28-2035**	11.8074	11.8074
56	**3-1-2035**	**5-31-2035**	12.0160	12.0160
57	**6-1-2035**	**8-31-2035**	12.0388	12.0388

58	**9-1-2035**	**11-30-2035**	11.8630	11.8630
59	**12-1-2035**	**2-29-2036**	11.8409	11.8409
60	**3-1-2036**	**5-31-2036**	12.0160	12.0160
61	**6-1-2036**	**8-31-2036**	12.0388	12.0388
62	**9-1-2036**	**11-30-2036**	11.8630	11.8630
63	**12-1-2036**	**2-28-2037**	11.7108	11.7108
64	**3-1-2037**	**5-31-2037**	12.0160	12.0160
65	**6-1-2037**	**8-31-2037**	12.0388	12.0388
66	**9-1-2037**	**11-30-2037**	11.8630	11.8630
67	**12-1-2037**	**2-28-2038**	11.7108	11.7108
68	**3-1-2038**	**5-31-2038**	12.0160	12.0160
69	**6-1-2038**	**8-31-2038**	12.0388	12.0388
70	**9-1-2038**	**11-30-2038**	12.1524	12.1524
71	**12-1-2038**	**2-28-2039**	12.1677	12.1677
72	**3-1-2039**	**5-31-2039**	12.4829	12.4829
73	**6-1-2039**	**8-31-2039**	12.5057	12.5057
74	**9-1-2039**	**11-30-2039**	12.3249	12.3249
75	**12-1-2039**	**2-29-2040**	11.9502	11.9502
76	**3-1-2040**	**5-31-2040**	11.9449	11.9449
77	**6-1-2040**	**8-31-2040**	11.9692	11.9692
78	**9-1-2040**	**9-30-2040**	3.9030	3.9030
		Highest	20.5115	20.5115

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/30/2022	5	260	
2	Site Preparation	Site Preparation	5/31/2022	12/12/2022	5	140	
3	Grading	Grading	12/13/2022	7/22/2024	5	420	
4	Building Construction	Building Construction	7/23/2024	12/31/2040	5	4290	
5	Architectural Coating	Architectural Coating	1/13/2032	12/31/2040	5	2340	
6	Paving	Paving	10/5/2038	12/31/2040	5	585	

Acres of Grading (Site Preparation Phase): 2800

Acres of Grading (Grading Phase): 8400

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,868,040; Non-Residential Outdoor: 4,622,680; Striped Parking Area: 1,220,436 (Architectural Coating – sqft)

OffRoad Equipment

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	5	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Site Preparation	Crawler Tractors	7	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	5	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	4	8.00	212	0.43
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Crawler Tractors	5	8.00	212	0.43
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	247.00	591,868.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	12	30.00	133.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	399.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	12,275.00	4,071.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	2,455.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					37.9341	0.0000	37.9341	5.7436	0.0000	5.7436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4698	4.6761	3.0691	5.5800e-003		0.2309	0.2309		0.2145	0.2145	0.0000	488.6721	488.6721	0.1361	0.0000	492.0740
Total	**0.4698**	**4.6761**	**3.0691**	**5.5800e-003**	**37.9341**	**0.2309**	**38.1650**	**5.7436**	**0.2145**	**5.9581**	**0.0000**	**488.6721**	**488.6721**	**0.1361**	**0.0000**	**492.0740**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0616	40.9346	6.5802	0.1347	4.5769	0.1138	4.6906	1.2115	0.1088	1.3203	0.0000	12,977.3185	12,977.3185	0.7300	0.0000	12,995.5693
Vendor	0.0504	1.8503	0.3765	5.0500e-003	0.1199	3.1800e-003	0.1231	0.0346	3.0400e-003	0.0377	0.0000	483.0128	483.0128	0.0325	0.0000	483.8264
Worker	9.9200e-003	7.5000e-003	0.0768	2.2000e-004	0.0236	1.5000e-004	0.0238	6.2800e-003	1.4000e-004	6.4200e-003	0.0000	19.6175	19.6175	5.5000e-004	0.0000	19.6312
Total	**1.1219**	**42.7924**	**7.0335**	**0.1400**	**4.7204**	**0.1171**	**4.8375**	**1.2524**	**0.1120**	**1.3644**	**0.0000**	**13,479.9487**	**13,479.9487**	**0.7631**	**0.0000**	**13,499.0269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					14.7943	0.0000	14.7943	2.2400	0.0000	2.2400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4698	4.6761	3.0691	5.5800e-003		0.2309	0.2309		0.2145	0.2145	0.0000	488.6715	488.6715	0.1361	0.0000	492.0734
Total	**0.4698**	**4.6761**	**3.0691**	**5.5800e-003**	**14.7943**	**0.2309**	**15.0252**	**2.2400**	**0.2145**	**2.4545**	**0.0000**	**488.6715**	**488.6715**	**0.1361**	**0.0000**	**492.0734**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0616	40.9346	6.5802	0.1347	4.5769	0.1138	4.6906	1.2115	0.1088	1.3203	0.0000	12,977.3185	12,977.3185	0.7300	0.0000	12,995.5693
Vendor	0.0504	1.8503	0.3765	5.0500e-003	0.1199	3.1800e-003	0.1231	0.0346	3.0400e-003	0.0377	0.0000	483.0128	483.0128	0.0325	0.0000	483.8264
Worker	9.9200e-003	7.5000e-003	0.0768	2.2000e-004	0.0236	1.5000e-004	0.0238	6.2800e-003	1.4000e-004	6.4200e-003	0.0000	19.6175	19.6175	5.5000e-004	0.0000	19.6312
Total	**1.1219**	**42.7924**	**7.0335**	**0.1400**	**4.7204**	**0.1171**	**4.8375**	**1.2524**	**0.1120**	**1.3644**	**0.0000**	**13,479.9487**	**13,479.9487**	**0.7631**	**0.0000**	**13,499.0269**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					26.1105	0.0000	26.1105	3.9534	0.0000	3.9534	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2690	2.6321	2.0105	3.8400e-003		0.1272	0.1272		0.1183	0.1183	0.0000	336.2553	336.2553	0.0934	0.0000	338.5910
Total	**0.2690**	**2.6321**	**2.0105**	**3.8400e-003**	**26.1105**	**0.1272**	**26.2376**	**3.9534**	**0.1183**	**4.0716**	**0.0000**	**336.2553**	**336.2553**	**0.0934**	**0.0000**	**338.5910**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.6909	25.7925	4.3870	0.0916	4.3430	0.0649	4.4079	1.1266	0.0621	1.1887	0.0000	8,832.1401	8,832.1401	0.4905	0.0000	8,844.4029
Vendor	0.0324	1.2062	0.2399	3.4400e-003	0.0825	1.8400e-003	0.0844	0.0238	1.7600e-003	0.0256	0.0000	329.7550	329.7550	0.0216	0.0000	330.2959
Worker	6.3900e-003	4.6400e-003	0.0485	1.4000e-004	0.0163	1.0000e-004	0.0164	4.3200e-003	9.0000e-005	4.4200e-003	0.0000	13.0164	13.0164	3.4000e-004	0.0000	13.0249
Total	**0.7297**	**27.0034**	**4.6755**	**0.0952**	**4.4418**	**0.0668**	**4.5087**	**1.1548**	**0.0639**	**1.2187**	**0.0000**	**9,174.9114**	**9,174.9114**	**0.5125**	**0.0000**	**9,187.7236**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					10.1831	0.0000	10.1831	1.5418	0.0000	1.5418	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2690	2.6321	2.0105	3.8400e-003		0.1272	0.1272		0.1183	0.1183	0.0000	336.2549	336.2549	0.0934	0.0000	338.5906
Total	**0.2690**	**2.6321**	**2.0105**	**3.8400e-003**	**10.1831**	**0.1272**	**10.3103**	**1.5418**	**0.1183**	**1.6601**	**0.0000**	**336.2549**	**336.2549**	**0.0934**	**0.0000**	**338.5906**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.6909	25.7925	4.3870	0.0916	4.3430	0.0649	4.4079	1.1266	0.0621	1.1887	0.0000	8,832.1401	8,832.1401	0.4905	0.0000	8,844.4029
Vendor	0.0324	1.2062	0.2399	3.4400e-003	0.0825	1.8400e-003	0.0844	0.0238	1.7600e-003	0.0256	0.0000	329.7550	329.7550	0.0216	0.0000	330.2959
Worker	6.3900e-003	4.6400e-003	0.0485	1.4000e-004	0.0163	1.0000e-004	0.0164	4.3200e-003	9.0000e-005	4.4200e-003	0.0000	13.0164	13.0164	3.4000e-004	0.0000	13.0249
Total	**0.7297**	**27.0034**	**4.6755**	**0.0952**	**4.4418**	**0.0668**	**4.5087**	**1.1548**	**0.0639**	**1.2187**	**0.0000**	**9,174.9114**	**9,174.9114**	**0.5125**	**0.0000**	**9,187.7236**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5924	0.0000	3.5924	1.3189	0.0000	1.3189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	6.0216	2.3880	6.8300e-003		0.2572	0.2572		0.2366	0.2366	0.0000	600.0013	600.0013	0.1941	0.0000	604.8526
Total	**0.5340**	**6.0216**	**2.3880**	**6.8300e-003**	**3.5924**	**0.2572**	**3.8496**	**1.3189**	**0.2366**	**1.5555**	**0.0000**	**600.0013**	**600.0013**	**0.1941**	**0.0000**	**604.8526**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.8578	0.1706	2.4500e-003	0.0587	1.3100e-003	0.0600	0.0169	1.2500e-003	0.0182	0.0000	234.5137	234.5137	0.0154	0.0000	234.8984
Worker	9.0400e-003	6.5700e-003	0.0686	2.0000e-004	0.0230	1.5000e-004	0.0232	6.1200e-003	1.3000e-004	6.2500e-003	0.0000	18.4194	18.4194	4.8000e-004	0.0000	18.4314
Total	**0.0321**	**0.8644**	**0.2393**	**2.6500e-003**	**0.0817**	**1.4600e-003**	**0.0832**	**0.0231**	**1.3800e-003**	**0.0244**	**0.0000**	**252.9331**	**252.9331**	**0.0159**	**0.0000**	**253.3298**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4011	0.0000	1.4011	0.5144	0.0000	0.5144	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	6.0216	2.3880	6.8300e-003		0.2572	0.2572		0.2366	0.2366	0.0000	600.0006	600.0006	0.1941	0.0000	604.8519
Total	**0.5340**	**6.0216**	**2.3880**	**6.8300e-003**	**1.4011**	**0.2572**	**1.6582**	**0.5144**	**0.2366**	**0.7510**	**0.0000**	**600.0006**	**600.0006**	**0.1941**	**0.0000**	**604.8519**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.8578	0.1706	2.4500e-003	0.0587	1.3100e-003	0.0600	0.0169	1.2500e-003	0.0182	0.0000	234.5137	234.5137	0.0154	0.0000	234.8984
Worker	9.0400e-003	6.5700e-003	0.0686	2.0000e-004	0.0230	1.5000e-004	0.0232	6.1200e-003	1.3000e-004	6.2500e-003	0.0000	18.4194	18.4194	4.8000e-004	0.0000	18.4314
Total	**0.0321**	**0.8644**	**0.2393**	**2.6500e-003**	**0.0817**	**1.4600e-003**	**0.0832**	**0.0231**	**1.3800e-003**	**0.0244**	**0.0000**	**252.9331**	**252.9331**	**0.0159**	**0.0000**	**253.3298**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5384	0.0000	4.5384	0.5273	0.0000	0.5273	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0599	0.6651	0.4087	1.0000e-003		0.0267	0.0267		0.0246	0.0246	0.0000	87.9769	87.9769	0.0285	0.0000	88.6883
Total	**0.0599**	**0.6651**	**0.4087**	**1.0000e-003**	**4.5384**	**0.0267**	**4.5651**	**0.5273**	**0.0246**	**0.5519**	**0.0000**	**87.9769**	**87.9769**	**0.0285**	**0.0000**	**88.6883**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9000e-003	0.2574	0.0512	7.3000e-004	0.0176	3.9000e-004	0.0180	5.0800e-003	3.8000e-004	5.4600e-003	0.0000	70.3541	70.3541	4.6200e-003	0.0000	70.4695
Worker	1.2100e-003	8.8000e-004	9.1500e-003	3.0000e-005	3.0700e-003	2.0000e-005	3.0900e-003	8.2000e-004	2.0000e-005	8.3000e-004	0.0000	2.4559	2.4559	6.0000e-005	0.0000	2.4575
Total	**8.1100e-003**	**0.2582**	**0.0603**	**7.6000e-004**	**0.0207**	**4.1000e-004**	**0.0211**	**5.9000e-003**	**4.0000e-004**	**6.2900e-003**	**0.0000**	**72.8100**	**72.8100**	**4.6800e-003**	**0.0000**	**72.9270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7700	0.0000	1.7700	0.2056	0.0000	0.2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0599	0.6651	0.4087	1.0000e-003		0.0267	0.0267		0.0246	0.0246	0.0000	87.9768	87.9768	0.0285	0.0000	88.6882
Total	**0.0599**	**0.6651**	**0.4087**	**1.0000e-003**	**1.7700**	**0.0267**	**1.7967**	**0.2056**	**0.0246**	**0.2302**	**0.0000**	**87.9768**	**87.9768**	**0.0285**	**0.0000**	**88.6882**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9000e-003	0.2574	0.0512	7.3000e-004	0.0176	3.9000e-004	0.0180	5.0800e-003	3.8000e-004	5.4600e-003	0.0000	70.3541	70.3541	4.6200e-003	0.0000	70.4695
Worker	1.2100e-003	8.8000e-004	9.1500e-003	3.0000e-005	3.0700e-003	2.0000e-005	3.0900e-003	8.2000e-004	2.0000e-005	8.3000e-004	0.0000	2.4559	2.4559	6.0000e-005	0.0000	2.4575
Total	**8.1100e-003**	**0.2582**	**0.0603**	**7.6000e-004**	**0.0207**	**4.1000e-004**	**0.0211**	**5.9000e-003**	**4.0000e-004**	**6.2900e-003**	**0.0000**	**72.8100**	**72.8100**	**4.6800e-003**	**0.0000**	**72.9270**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0198	0.0000	6.0198	1.3416	0.0000	1.3416	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0159	10.8403	7.2997	0.0186		0.4343	0.4343		0.3995	0.3995	0.0000	1,633.3550	1,633.3550	0.5283	0.0000	1,646.5615
Total	**1.0159**	**10.8403**	**7.2997**	**0.0186**	**6.0198**	**0.4343**	**6.4541**	**1.3416**	**0.3995**	**1.7411**	**0.0000**	**1,633.3550**	**1,633.3550**	**0.5283**	**0.0000**	**1,646.5615**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0967	3.6849	0.8204	0.0133	0.3270	3.6000e-003	0.3306	0.0944	3.4400e-003	0.0978	0.0000	1,270.6428	1,270.6428	0.0689	0.0000	1,272.3655
Worker	0.0210	0.0146	0.1558	4.9000e-004	0.0570	3.5000e-004	0.0574	0.0151	3.2000e-004	0.0155	0.0000	43.8973	43.8973	1.0600e-003	0.0000	43.9239
Total	**0.1177**	**3.6996**	**0.9762**	**0.0138**	**0.3840**	**3.9500e-003**	**0.3880**	**0.1095**	**3.7600e-003**	**0.1133**	**0.0000**	**1,314.5401**	**1,314.5401**	**0.0700**	**0.0000**	**1,316.2894**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3477	0.0000	2.3477	0.5232	0.0000	0.5232	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0159	10.8403	7.2997	0.0186		0.4343	0.4343		0.3995	0.3995	0.0000	1,633.3531	1,633.3531	0.5283	0.0000	1,646.5596
Total	**1.0159**	**10.8403**	**7.2997**	**0.0186**	**2.3477**	**0.4343**	**2.7820**	**0.5232**	**0.3995**	**0.9228**	**0.0000**	**1,633.3531**	**1,633.3531**	**0.5283**	**0.0000**	**1,646.5596**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0967	3.6849	0.8204	0.0133	0.3270	3.6000e-003	0.3306	0.0944	3.4400e-003	0.0978	0.0000	1,270.6428	1,270.6428	0.0689	0.0000	1,272.3655
Worker	0.0210	0.0146	0.1558	4.9000e-004	0.0570	3.5000e-004	0.0574	0.0151	3.2000e-004	0.0155	0.0000	43.8973	43.8973	1.0600e-003	0.0000	43.9239
Total	**0.1177**	**3.6996**	**0.9762**	**0.0138**	**0.3840**	**3.9500e-003**	**0.3880**	**0.1095**	**3.7600e-003**	**0.1133**	**0.0000**	**1,314.5401**	**1,314.5401**	**0.0700**	**0.0000**	**1,316.2894**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3333	0.0000	5.3333	0.9642	0.0000	0.9642	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5517	5.6906	4.0379	0.0104		0.2294	0.2294		0.2110	0.2110	0.0000	917.0127	917.0127	0.2966	0.0000	924.4272
Total	**0.5517**	**5.6906**	**4.0379**	**0.0104**	**5.3333**	**0.2294**	**5.5627**	**0.9642**	**0.2110**	**1.1753**	**0.0000**	**917.0127**	**917.0127**	**0.2966**	**0.0000**	**924.4272**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0536	2.0796	0.4431	7.4400e-003	0.1836	2.0100e-003	0.1856	0.0530	1.9200e-003	0.0549	0.0000	712.7193	712.7193	0.0387	0.0000	713.6858
Worker	0.0111	7.4400e-003	0.0814	2.6000e-004	0.0320	2.0000e-004	0.0322	8.5000e-003	1.8000e-004	8.6800e-003	0.0000	23.8504	23.8504	5.5000e-004	0.0000	23.8641
Total	**0.0646**	**2.0870**	**0.5245**	**7.7000e-003**	**0.2157**	**2.2100e-003**	**0.2179**	**0.0615**	**2.1000e-003**	**0.0636**	**0.0000**	**736.5697**	**736.5697**	**0.0392**	**0.0000**	**737.5499**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0800	0.0000	2.0800	0.3761	0.0000	0.3761	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5517	5.6906	4.0379	0.0104		0.2294	0.2294		0.2110	0.2110	0.0000	917.0116	917.0116	0.2966	0.0000	924.4261
Total	**0.5517**	**5.6906**	**4.0379**	**0.0104**	**2.0800**	**0.2294**	**2.3094**	**0.3761**	**0.2110**	**0.5871**	**0.0000**	**917.0116**	**917.0116**	**0.2966**	**0.0000**	**924.4261**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0536	2.0796	0.4431	7.4400e-003	0.1836	2.0100e-003	0.1856	0.0530	1.9200e-003	0.0549	0.0000	712.7193	712.7193	0.0387	0.0000	713.6858
Worker	0.0111	7.4400e-003	0.0814	2.6000e-004	0.0320	2.0000e-004	0.0322	8.5000e-003	1.8000e-004	8.6800e-003	0.0000	23.8504	23.8504	5.5000e-004	0.0000	23.8641
Total	**0.0646**	**2.0870**	**0.5245**	**7.7000e-003**	**0.2157**	**2.2100e-003**	**0.2179**	**0.0615**	**2.1000e-003**	**0.0636**	**0.0000**	**736.5697**	**736.5697**	**0.0392**	**0.0000**	**737.5499**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2492	2.4950	1.7930	4.4400e-003		0.1035	0.1035		0.0967	0.0967	0.0000	384.7359	384.7359	0.1011	0.0000	387.2621
Total	**0.2492**	**2.4950**	**1.7930**	**4.4400e-003**		**0.1035**	**0.1035**		**0.0967**	**0.0967**	**0.0000**	**384.7359**	**384.7359**	**0.1011**	**0.0000**	**387.2621**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4341	16.8581	3.5922	0.0603	1.4886	0.0163	1.5049	0.4296	0.0156	0.4452	0.0000	5,777.6580	5,777.6580	0.3134	0.0000	5,785.4935
Worker	2.7041	1.8151	19.8499	0.0643	7.8063	0.0476	7.8539	2.0733	0.0438	2.1171	0.0000	5,815.1772	5,815.1772	0.1329	0.0000	5,818.5005
Total	**3.1382**	**18.6733**	**23.4422**	**0.1246**	**9.2949**	**0.0639**	**9.3588**	**2.5029**	**0.0594**	**2.5623**	**0.0000**	**11,592.8351**	**11,592.8351**	**0.4464**	**0.0000**	**11,603.9941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2492	2.4950	1.7930	4.4400e-003		0.1035	0.1035		0.0967	0.0967	0.0000	384.7355	384.7355	0.1011	0.0000	387.2617
Total	**0.2492**	**2.4950**	**1.7930**	**4.4400e-003**		**0.1035**	**0.1035**		**0.0967**	**0.0967**	**0.0000**	**384.7355**	**384.7355**	**0.1011**	**0.0000**	**387.2617**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4341	16.8581	3.5922	0.0603	1.4886	0.0163	1.5049	0.4296	0.0156	0.4452	0.0000	5,777.6580	5,777.6580	0.3134	0.0000	5,785.4935
Worker	2.7041	1.8151	19.8499	0.0643	7.8063	0.0476	7.8539	2.0733	0.0438	2.1171	0.0000	5,815.1772	5,815.1772	0.1329	0.0000	5,818.5005
Total	**3.1382**	**18.6733**	**23.4422**	**0.1246**	**9.2949**	**0.0639**	**9.3588**	**2.5029**	**0.0594**	**2.5623**	**0.0000**	**11,592.8351**	**11,592.8351**	**0.4464**	**0.0000**	**11,603.9941**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9512	37.6756	7.7624	0.1349	3.3493	0.0362	3.3855	0.9666	0.0346	1.0012	0.0000	12,924.6452	12,924.6452	0.7016	0.0000	12,942.1844
Worker	5.7453	3.7107	41.2589	0.1389	17.5642	0.1050	17.6691	4.6648	0.0966	4.7614	0.0000	12,564.5812	12,564.5812	0.2704	0.0000	12,571.3410
Total	**6.6965**	**41.3863**	**49.0213**	**0.2738**	**20.9135**	**0.1412**	**21.0546**	**5.6315**	**0.1312**	**5.7627**	**0.0000**	**25,489.2264**	**25,489.2264**	**0.9720**	**0.0000**	**25,513.5254**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9512	37.6756	7.7624	0.1349	3.3493	0.0362	3.3855	0.9666	0.0346	1.0012	0.0000	12,924.6452	12,924.6452	0.7016	0.0000	12,942.1844
Worker	5.7453	3.7107	41.2589	0.1389	17.5642	0.1050	17.6691	4.6648	0.0966	4.7614	0.0000	12,564.5812	12,564.5812	0.2704	0.0000	12,571.3410
Total	**6.6965**	**41.3863**	**49.0213**	**0.2738**	**20.9135**	**0.1412**	**21.0546**	**5.6315**	**0.1312**	**5.7627**	**0.0000**	**25,489.2264**	**25,489.2264**	**0.9720**	**0.0000**	**25,513.5254**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9297	37.4097	7.5172	0.1341	3.3493	0.0357	3.3850	0.9666	0.0341	1.0007	0.0000	12,853.0542	12,853.0542	0.6962	0.0000	12,870.4593
Worker	5.4486	3.3936	38.3293	0.1338	17.5642	0.1016	17.6657	4.6648	0.0935	4.7583	0.0000	12,108.9248	12,108.9248	0.2457	0.0000	12,115.0674
Total	**6.3783**	**40.8033**	**45.8465**	**0.2679**	**20.9134**	**0.1373**	**21.0507**	**5.6314**	**0.1276**	**5.7590**	**0.0000**	**24,961.9790**	**24,961.9790**	**0.9419**	**0.0000**	**24,985.5267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9297	37.4097	7.5172	0.1341	3.3493	0.0357	3.3850	0.9666	0.0341	1.0007	0.0000	12,853.0542	12,853.0542	0.6962	0.0000	12,870.4593
Worker	5.4486	3.3936	38.3293	0.1338	17.5642	0.1016	17.6657	4.6648	0.0935	4.7583	0.0000	12,108.9248	12,108.9248	0.2457	0.0000	12,115.0674
Total	**6.3783**	**40.8033**	**45.8465**	**0.2679**	**20.9134**	**0.1373**	**21.0507**	**5.6314**	**0.1276**	**5.7590**	**0.0000**	**24,961.9790**	**24,961.9790**	**0.9419**	**0.0000**	**24,985.5267**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9117	37.1605	7.3133	0.1334	3.3492	0.0351	3.3844	0.9666	0.0336	1.0002	0.0000	12,792.6548	12,792.6548	0.6901	0.0000	12,809.9070
Worker	5.1607	3.1095	35.7251	0.1294	17.5642	0.0962	17.6603	4.6648	0.0885	4.7533	0.0000	11,706.8002	11,706.8002	0.2237	0.0000	11,712.3930
Total	**6.0724**	**40.2700**	**43.0384**	**0.2628**	**20.9134**	**0.1313**	**21.0447**	**5.6314**	**0.1221**	**5.7535**	**0.0000**	**24,499.4550**	**24,499.4550**	**0.9138**	**0.0000**	**24,522.3000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9117	37.1605	7.3133	0.1334	3.3492	0.0351	3.3844	0.9666	0.0336	1.0002	0.0000	12,792.6548	12,792.6548	0.6901	0.0000	12,809.9070
Worker	5.1607	3.1095	35.7251	0.1294	17.5642	0.0962	17.6603	4.6648	0.0885	4.7533	0.0000	11,706.8002	11,706.8002	0.2237	0.0000	11,712.3930
Total	**6.0724**	**40.2700**	**43.0384**	**0.2628**	**20.9134**	**0.1313**	**21.0447**	**5.6314**	**0.1221**	**5.7535**	**0.0000**	**24,499.4550**	**24,499.4550**	**0.9138**	**0.0000**	**24,522.3000**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5071	4.9000	3.9368	9.9600e-003		0.1993	0.1993		0.1862	0.1862	0.0000	862.1181	862.1181	0.2256	0.0000	867.7569
Total	**0.5071**	**4.9000**	**3.9368**	**9.9600e-003**		**0.1993**	**0.1993**		**0.1862**	**0.1862**	**0.0000**	**862.1181**	**862.1181**	**0.2256**	**0.0000**	**867.7569**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8933	36.8231	7.1268	0.1324	3.3364	0.0347	3.3710	0.9629	0.0331	0.9960	0.0000	12,692.4822	12,692.4822	0.6804	0.0000	12,709.4913
Worker	4.8447	2.8439	33.3169	0.1250	17.4969	0.0889	17.5858	4.6470	0.0818	4.7288	0.0000	11,310.2795	11,310.2795	0.2040	0.0000	11,315.3788
Total	**5.7380**	**39.6669**	**40.4437**	**0.2573**	**20.8332**	**0.1236**	**20.9568**	**5.6099**	**0.1149**	**5.7248**	**0.0000**	**24,002.7617**	**24,002.7617**	**0.8843**	**0.0000**	**24,024.8701**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5071	4.9000	3.9368	9.9600e-003		0.1993	0.1993		0.1862	0.1862	0.0000	862.1171	862.1171	0.2256	0.0000	867.7559
Total	**0.5071**	**4.9000**	**3.9368**	**9.9600e-003**		**0.1993**	**0.1993**		**0.1862**	**0.1862**	**0.0000**	**862.1171**	**862.1171**	**0.2256**	**0.0000**	**867.7559**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8933	36.8231	7.1268	0.1324	3.3364	0.0347	3.3710	0.9629	0.0331	0.9960	0.0000	12,692.4822	12,692.4822	0.6804	0.0000	12,709.4913
Worker	4.8447	2.8439	33.3169	0.1250	17.4969	0.0889	17.5858	4.6470	0.0818	4.7288	0.0000	11,310.2795	11,310.2795	0.2040	0.0000	11,315.3788
Total	**5.7380**	**39.6669**	**40.4437**	**0.2573**	**20.8332**	**0.1236**	**20.9568**	**5.6099**	**0.1149**	**5.7248**	**0.0000**	**24,002.7617**	**24,002.7617**	**0.8843**	**0.0000**	**24,024.8701**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8837	36.7820	7.0097	0.1324	3.3492	0.0344	3.3836	0.9666	0.0329	0.9995	0.0000	12,698.1327	12,698.1327	0.6765	0.0000	12,715.0442
Worker	4.5384	2.6130	31.2376	0.1220	17.5642	0.0828	17.6470	4.6648	0.0762	4.7410	0.0000	11,042.7931	11,042.7931	0.1865	0.0000	11,047.4544
Total	**5.4221**	**39.3951**	**38.2473**	**0.2544**	**20.9134**	**0.1172**	**21.0306**	**5.6314**	**0.1091**	**5.7405**	**0.0000**	**23,740.9257**	**23,740.9257**	**0.8629**	**0.0000**	**23,762.4985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8837	36.7820	7.0097	0.1324	3.3492	0.0344	3.3836	0.9666	0.0329	0.9995	0.0000	12,698.1327	12,698.1327	0.6765	0.0000	12,715.0442
Worker	4.5384	2.6130	31.2376	0.1220	17.5642	0.0828	17.6470	4.6648	0.0762	4.7410	0.0000	11,042.7931	11,042.7931	0.1865	0.0000	11,047.4544
Total	**5.4221**	**39.3951**	**38.2473**	**0.2544**	**20.9134**	**0.1172**	**21.0306**	**5.6314**	**0.1091**	**5.7405**	**0.0000**	**23,740.9257**	**23,740.9257**	**0.8629**	**0.0000**	**23,762.4985**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0907	1,002.0907	0.0397	0.0000	1,003.0843
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0397**	**0.0000**	**1,003.0843**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8733	36.6070	6.9066	0.1320	3.3492	0.0340	3.3832	0.9666	0.0325	0.9991	0.0000	12,661.3120	12,661.3120	0.6696	0.0000	12,678.0525
Worker	4.2199	2.3904	29.2496	0.1189	17.5642	0.0770	17.6411	4.6648	0.0708	4.7356	0.0000	10,768.9553	10,768.9553	0.1701	0.0000	10,773.2071
Total	**5.0932**	**38.9974**	**36.1562**	**0.2509**	**20.9133**	**0.1110**	**21.0243**	**5.6314**	**0.1033**	**5.7347**	**0.0000**	**23,430.2673**	**23,430.2673**	**0.8397**	**0.0000**	**23,451.2595**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0895	1,002.0895	0.0397	0.0000	1,003.0831
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0397**	**0.0000**	**1,003.0831**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8733	36.6070	6.9066	0.1320	3.3492	0.0340	3.3832	0.9666	0.0325	0.9991	0.0000	12,661.3120	12,661.3120	0.6696	0.0000	12,678.0525
Worker	4.2199	2.3904	29.2496	0.1189	17.5642	0.0770	17.6411	4.6648	0.0708	4.7356	0.0000	10,768.9553	10,768.9553	0.1701	0.0000	10,773.2071
Total	**5.0932**	**38.9974**	**36.1562**	**0.2509**	**20.9133**	**0.1110**	**21.0243**	**5.6314**	**0.1033**	**5.7347**	**0.0000**	**23,430.2673**	**23,430.2673**	**0.8397**	**0.0000**	**23,451.2595**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0907	1,002.0907	0.0397	0.0000	1,003.0843
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0397**	**0.0000**	**1,003.0843**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8734	36.6414	6.8792	0.1320	3.3492	0.0338	3.3830	0.9666	0.0323	0.9989	0.0000	12,666.3124	12,666.3124	0.6641	0.0000	12,682.9142
Worker	3.8717	2.1723	27.4678	0.1164	17.5642	0.0720	17.6362	4.6648	0.0663	4.7311	0.0000	10,544.0197	10,544.0197	0.1553	0.0000	10,547.9014
Total	**4.7451**	**38.8137**	**34.3470**	**0.2485**	**20.9133**	**0.1059**	**21.0192**	**5.6314**	**0.0986**	**5.7300**	**0.0000**	**23,210.3321**	**23,210.3321**	**0.8193**	**0.0000**	**23,230.8156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0895	1,002.0895	0.0397	0.0000	1,003.0831
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0397**	**0.0000**	**1,003.0831**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8734	36.6414	6.8792	0.1320	3.3492	0.0338	3.3830	0.9666	0.0323	0.9989	0.0000	12,666.3124	12,666.3124	0.6641	0.0000	12,682.9142
Worker	3.8717	2.1723	27.4678	0.1164	17.5642	0.0720	17.6362	4.6648	0.0663	4.7311	0.0000	10,544.0197	10,544.0197	0.1553	0.0000	10,547.9014
Total	**4.7451**	**38.8137**	**34.3470**	**0.2485**	**20.9133**	**0.1059**	**21.0192**	**5.6314**	**0.0986**	**5.7300**	**0.0000**	**23,210.3321**	**23,210.3321**	**0.8193**	**0.0000**	**23,230.8156**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4975	2.4995	3.7794	0.0118		0.0679	0.0679		0.0679	0.0679	0.0000	1,005.9302	1,005.9302	0.0399	0.0000	1,006.9275
Total	**0.4975**	**2.4995**	**3.7794**	**0.0118**		**0.0679**	**0.0679**		**0.0679**	**0.0679**	**0.0000**	**1,005.9302**	**1,005.9302**	**0.0399**	**0.0000**	**1,006.9275**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8711	36.6461	6.8551	0.1324	3.3620	0.0337	3.3957	0.9703	0.0322	1.0025	0.0000	12,699.0384	12,699.0384	0.6619	0.0000	12,715.5868
Worker	3.5757	1.9920	25.8545	0.1145	17.6314	0.0673	17.6988	4.6827	0.0619	4.7446	0.0000	10,372.6084	10,372.6084	0.1420	0.0000	10,376.1588
Total	**4.4468**	**38.6382**	**32.7096**	**0.2469**	**20.9934**	**0.1010**	**21.0945**	**5.6530**	**0.0941**	**5.7471**	**0.0000**	**23,071.6468**	**23,071.6468**	**0.8040**	**0.0000**	**23,091.7456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4975	2.4995	3.7794	0.0118		0.0679	0.0679		0.0679	0.0679	0.0000	1,005.9290	1,005.9290	0.0399	0.0000	1,006.9263
Total	**0.4975**	**2.4995**	**3.7794**	**0.0118**		**0.0679**	**0.0679**		**0.0679**	**0.0679**	**0.0000**	**1,005.9290**	**1,005.9290**	**0.0399**	**0.0000**	**1,006.9263**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8711	36.6461	6.8551	0.1324	3.3620	0.0337	3.3957	0.9703	0.0322	1.0025	0.0000	12,699.0384	12,699.0384	0.6619	0.0000	12,715.5868
Worker	3.5757	1.9920	25.8545	0.1145	17.6314	0.0673	17.6988	4.6827	0.0619	4.7446	0.0000	10,372.6084	10,372.6084	0.1420	0.0000	10,376.1588
Total	**4.4468**	**38.6382**	**32.7096**	**0.2469**	**20.9934**	**0.1010**	**21.0945**	**5.6530**	**0.0941**	**5.7471**	**0.0000**	**23,071.6468**	**23,071.6468**	**0.8040**	**0.0000**	**23,091.7456**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2513	998.2513	0.0396	0.0000	999.2410
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2513**	**998.2513**	**0.0396**	**0.0000**	**999.2410**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8609	36.2470	6.7667	0.1312	3.3363	0.0332	3.3695	0.9629	0.0317	0.9946	0.0000	12,592.4483	12,592.4483	0.6525	0.0000	12,608.7595
Worker	3.2813	1.8173	24.1875	0.1116	17.4969	0.0623	17.5592	4.6470	0.0573	4.7043	0.0000	10,110.7726	10,110.7726	0.1291	0.0000	10,114.0012
Total	**4.1422**	**38.0643**	**30.9541**	**0.2429**	**20.8332**	**0.0955**	**20.9287**	**5.6098**	**0.0891**	**5.6989**	**0.0000**	**22,703.2209**	**22,703.2209**	**0.7816**	**0.0000**	**22,722.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2501	998.2501	0.0396	0.0000	999.2398
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2501**	**998.2501**	**0.0396**	**0.0000**	**999.2398**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8609	36.2470	6.7667	0.1312	3.3363	0.0332	3.3695	0.9629	0.0317	0.9946	0.0000	12,592.4483	12,592.4483	0.6525	0.0000	12,608.7595
Worker	3.2813	1.8173	24.1875	0.1116	17.4969	0.0623	17.5592	4.6470	0.0573	4.7043	0.0000	10,110.7726	10,110.7726	0.1291	0.0000	10,114.0012
Total	**4.1422**	**38.0643**	**30.9541**	**0.2429**	**20.8332**	**0.0955**	**20.9287**	**5.6098**	**0.0891**	**5.6989**	**0.0000**	**22,703.2209**	**22,703.2209**	**0.7816**	**0.0000**	**22,722.7607**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2513	998.2513	0.0396	0.0000	999.2410
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2513**	**998.2513**	**0.0396**	**0.0000**	**999.2410**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8578	36.1427	6.7349	0.1312	3.3363	0.0329	3.3692	0.9629	0.0315	0.9943	0.0000	12,587.4977	12,587.4977	0.6485	0.0000	12,603.7107
Worker	3.0594	1.6858	22.8072	0.1099	17.4969	0.0582	17.5551	4.6470	0.0535	4.7005	0.0000	9,952.1269	9,952.1269	0.1182	0.0000	9,955.0817
Total	**3.9172**	**37.8285**	**29.5421**	**0.2410**	**20.8332**	**0.0912**	**20.9243**	**5.6098**	**0.0850**	**5.6948**	**0.0000**	**22,539.6247**	**22,539.6247**	**0.7667**	**0.0000**	**22,558.7924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2501	998.2501	0.0396	0.0000	999.2398
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2501**	**998.2501**	**0.0396**	**0.0000**	**999.2398**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8578	36.1427	6.7349	0.1312	3.3363	0.0329	3.3692	0.9629	0.0315	0.9943	0.0000	12,587.4977	12,587.4977	0.6485	0.0000	12,603.7107
Worker	3.0594	1.6858	22.8072	0.1099	17.4969	0.0582	17.5551	4.6470	0.0535	4.7005	0.0000	9,952.1269	9,952.1269	0.1182	0.0000	9,955.0817
Total	**3.9172**	**37.8285**	**29.5421**	**0.2410**	**20.8332**	**0.0912**	**20.9243**	**5.6098**	**0.0850**	**5.6948**	**0.0000**	**22,539.6247**	**22,539.6247**	**0.7667**	**0.0000**	**22,558.7924**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0907	1,002.0907	0.0353	0.0000	1,002.9726
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0353**	**0.0000**	**1,002.9726**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0895	1,002.0895	0.0353	0.0000	1,002.9714
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0353**	**0.0000**	**1,002.9714**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4442	1.9025	3.7440	0.0118		0.0423	0.0423		0.0423	0.0423	0.0000	1,005.9302	1,005.9302	0.0354	0.0000	1,006.8154
Total	**0.4442**	**1.9025**	**3.7440**	**0.0118**		**0.0423**	**0.0423**		**0.0423**	**0.0423**	**0.0000**	**1,005.9302**	**1,005.9302**	**0.0354**	**0.0000**	**1,006.8154**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8619	36.3330	6.7607	0.1321	3.3620	0.0330	3.3949	0.9703	0.0315	1.0018	0.0000	12,681.5842	12,681.5842	0.6501	0.0000	12,697.8354
Worker	2.8952	1.5999	21.8297	0.1092	17.6314	0.0550	17.6864	4.6827	0.0505	4.7333	0.0000	9,892.3373	9,892.3373	0.1100	0.0000	9,895.0874
Total	**3.7571**	**37.9329**	**28.5904**	**0.2413**	**20.9934**	**0.0879**	**21.0813**	**5.6530**	**0.0821**	**5.7350**	**0.0000**	**22,573.9215**	**22,573.9215**	**0.7601**	**0.0000**	**22,592.9228**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4442	1.9025	3.7440	0.0118		0.0423	0.0423		0.0423	0.0423	0.0000	1,005.9290	1,005.9290	0.0354	0.0000	1,006.8142
Total	**0.4442**	**1.9025**	**3.7440**	**0.0118**		**0.0423**	**0.0423**		**0.0423**	**0.0423**	**0.0000**	**1,005.9290**	**1,005.9290**	**0.0354**	**0.0000**	**1,006.8142**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8619	36.3330	6.7607	0.1321	3.3620	0.0330	3.3949	0.9703	0.0315	1.0018	0.0000	12,681.5842	12,681.5842	0.6501	0.0000	12,697.8354
Worker	2.8952	1.5999	21.8297	0.1092	17.6314	0.0550	17.6864	4.6827	0.0505	4.7333	0.0000	9,892.3373	9,892.3373	0.1100	0.0000	9,895.0874
Total	**3.7571**	**37.9329**	**28.5904**	**0.2413**	**20.9934**	**0.0879**	**21.0813**	**5.6530**	**0.0821**	**5.7350**	**0.0000**	**22,573.9215**	**22,573.9215**	**0.7601**	**0.0000**	**22,592.9228**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0907	1,002.0907	0.0353	0.0000	1,002.9726
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0353**	**0.0000**	**1,002.9726**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0895	1,002.0895	0.0353	0.0000	1,002.9714
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0353**	**0.0000**	**1,002.9714**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0907	1,002.0907	0.0353	0.0000	1,002.9726
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0353**	**0.0000**	**1,002.9726**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0895	1,002.0895	0.0353	0.0000	1,002.9714
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0353**	**0.0000**	**1,002.9714**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4408	1.8879	3.7155	0.0117		0.0420	0.0420		0.0420	0.0420	0.0000	998.2513	998.2513	0.0351	0.0000	999.1298
Total	**0.4408**	**1.8879**	**3.7155**	**0.0117**		**0.0420**	**0.0420**		**0.0420**	**0.0420**	**0.0000**	**998.2513**	**998.2513**	**0.0351**	**0.0000**	**999.1298**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8553	36.0557	6.7091	0.1311	3.3363	0.0327	3.3690	0.9629	0.0313	0.9941	0.0000	12,584.7782	12,584.7782	0.6451	0.0000	12,600.9053
Worker	2.8731	1.5877	21.6630	0.1083	17.4969	0.0545	17.5514	4.6470	0.0502	4.6971	0.0000	9,816.8233	9,816.8233	0.1092	0.0000	9,819.5524
Total	**3.7284**	**37.6433**	**28.3721**	**0.2395**	**20.8331**	**0.0873**	**20.9204**	**5.6098**	**0.0814**	**5.6913**	**0.0000**	**22,401.6014**	**22,401.6014**	**0.7543**	**0.0000**	**22,420.4578**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4408	1.8879	3.7155	0.0117		0.0420	0.0420		0.0420	0.0420	0.0000	998.2501	998.2501	0.0351	0.0000	999.1286
Total	**0.4408**	**1.8879**	**3.7155**	**0.0117**		**0.0420**	**0.0420**		**0.0420**	**0.0420**	**0.0000**	**998.2501**	**998.2501**	**0.0351**	**0.0000**	**999.1286**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8553	36.0557	6.7091	0.1311	3.3363	0.0327	3.3690	0.9629	0.0313	0.9941	0.0000	12,584.7782	12,584.7782	0.6451	0.0000	12,600.9053
Worker	2.8731	1.5877	21.6630	0.1083	17.4969	0.0545	17.5514	4.6470	0.0502	4.6971	0.0000	9,816.8233	9,816.8233	0.1092	0.0000	9,819.5524
Total	**3.7284**	**37.6433**	**28.3721**	**0.2395**	**20.8331**	**0.0873**	**20.9204**	**5.6098**	**0.0814**	**5.6913**	**0.0000**	**22,401.6014**	**22,401.6014**	**0.7543**	**0.0000**	**22,420.4578**

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4198	1.6216	3.7140	0.0118		0.0310	0.0310		0.0310	0.0310	0.0000	1,002.0908	1,002.0908	0.0338	0.0000	1,002.9354
Total	**0.4198**	**1.6216**	**3.7140**	**0.0118**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**1,002.0908**	**1,002.0908**	**0.0338**	**0.0000**	**1,002.9354**

3.5 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8534	35.9739	6.6295	0.1317	3.3492	0.0324	3.3815	0.9666	0.0310	0.9975	0.0000	12,637.9707	12,637.9707	0.6380	0.0000	12,653.9213
Worker	2.2075	1.2845	18.2500	0.1041	17.5642	0.0423	17.6064	4.6648	0.0389	4.7037	0.0000	9,436.1215	9,436.1215	0.0823	0.0000	9,438.1785
Total	**3.0609**	**37.2584**	**24.8795**	**0.2358**	**20.9133**	**0.0746**	**20.9879**	**5.6314**	**0.0698**	**5.7012**	**0.0000**	**22,074.0923**	**22,074.0923**	**0.7203**	**0.0000**	**22,092.0998**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4198	1.6216	3.7139	0.0118		0.0310	0.0310		0.0310	0.0310	0.0000	1,002.0896	1,002.0896	0.0338	0.0000	1,002.9342
Total	**0.4198**	**1.6216**	**3.7139**	**0.0118**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**1,002.0896**	**1,002.0896**	**0.0338**	**0.0000**	**1,002.9342**

3.5 Building Construction - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8534	35.9739	6.6295	0.1317	3.3492	0.0324	3.3815	0.9666	0.0310	0.9975	0.0000	12,637.9707	12,637.9707	0.6380	0.0000	12,653.9213
Worker	2.2075	1.2845	18.2500	0.1041	17.5642	0.0423	17.6064	4.6648	0.0389	4.7037	0.0000	9,436.1215	9,436.1215	0.0823	0.0000	9,438.1785
Total	**3.0609**	**37.2584**	**24.8795**	**0.2358**	**20.9133**	**0.0746**	**20.9879**	**5.6314**	**0.0698**	**5.7012**	**0.0000**	**22,074.0923**	**22,074.0923**	**0.7203**	**0.0000**	**22,092.0998**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0443	0.2900	0.6088	1.0100e-003		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	86.4702	86.4702	3.5000e-003	0.0000	86.5577
Total	**2.6770**	**0.2900**	**0.6088**	**1.0100e-003**		**6.8800e-003**	**6.8800e-003**		**6.8800e-003**	**6.8800e-003**	**0.0000**	**86.4702**	**86.4702**	**3.5000e-003**	**0.0000**	**86.5577**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6933	0.3862	5.0130	0.0222	3.4186	0.0131	3.4317	0.9079	0.0120	0.9200	0.0000	2,011.1775	2,011.1775	0.0275	0.0000	2,011.8659
Total	**0.6933**	**0.3862**	**5.0130**	**0.0222**	**3.4186**	**0.0131**	**3.4317**	**0.9079**	**0.0120**	**0.9200**	**0.0000**	**2,011.1775**	**2,011.1775**	**0.0275**	**0.0000**	**2,011.8659**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0443	0.2900	0.6088	1.0100e-003		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	86.4701	86.4701	3.5000e-003	0.0000	86.5576
Total	**2.6770**	**0.2900**	**0.6088**	**1.0100e-003**		**6.8800e-003**	**6.8800e-003**		**6.8800e-003**	**6.8800e-003**	**0.0000**	**86.4701**	**86.4701**	**3.5000e-003**	**0.0000**	**86.5576**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6933	0.3862	5.0130	0.0222	3.4186	0.0131	3.4317	0.9079	0.0120	0.9200	0.0000	2,011.1775	2,011.1775	0.0275	0.0000	2,011.8659
Total	**0.6933**	**0.3862**	**5.0130**	**0.0222**	**3.4186**	**0.0131**	**3.4317**	**0.9079**	**0.0120**	**0.9200**	**0.0000**	**2,011.1775**	**2,011.1775**	**0.0275**	**0.0000**	**2,011.8659**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5128	88.5128	3.5800e-003	0.0000	88.6024
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5128**	**88.5128**	**3.5800e-003**	**0.0000**	**88.6024**

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6563	0.3635	4.8375	0.0223	3.4994	0.0125	3.5118	0.9294	0.0115	0.9409	0.0000	2,022.1545	2,022.1545	0.0258	0.0000	2,022.8002
Total	**0.6563**	**0.3635**	**4.8375**	**0.0223**	**3.4994**	**0.0125**	**3.5118**	**0.9294**	**0.0115**	**0.9409**	**0.0000**	**2,022.1545**	**2,022.1545**	**0.0258**	**0.0000**	**2,022.8002**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5127	88.5127	3.5800e-003	0.0000	88.6023
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5127**	**88.5127**	**3.5800e-003**	**0.0000**	**88.6023**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6563	0.3635	4.8375	0.0223	3.4994	0.0125	3.5118	0.9294	0.0115	0.9409	0.0000	2,022.1545	2,022.1545	0.0258	0.0000	2,022.8002
Total	**0.6563**	**0.3635**	**4.8375**	**0.0223**	**3.4994**	**0.0125**	**3.5118**	**0.9294**	**0.0115**	**0.9409**	**0.0000**	**2,022.1545**	**2,022.1545**	**0.0258**	**0.0000**	**2,022.8002**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5128	88.5128	3.5800e-003	0.0000	88.6024
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5128**	**88.5128**	**3.5800e-003**	**0.0000**	**88.6024**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6119	0.3372	4.5614	0.0220	3.4994	0.0116	3.5110	0.9294	0.0107	0.9401	0.0000	1,990.4254	1,990.4254	0.0236	0.0000	1,991.0163
Total	**0.6119**	**0.3372**	**4.5614**	**0.0220**	**3.4994**	**0.0116**	**3.5110**	**0.9294**	**0.0107**	**0.9401**	**0.0000**	**1,990.4254**	**1,990.4254**	**0.0236**	**0.0000**	**1,991.0163**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5127	88.5127	3.5800e-003	0.0000	88.6023
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5127**	**88.5127**	**3.5800e-003**	**0.0000**	**88.6023**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6119	0.3372	4.5614	0.0220	3.4994	0.0116	3.5110	0.9294	0.0107	0.9401	0.0000	1,990.4254	1,990.4254	0.0236	0.0000	1,991.0163
Total	**0.6119**	**0.3372**	**4.5614**	**0.0220**	**3.4994**	**0.0116**	**3.5110**	**0.9294**	**0.0107**	**0.9401**	**0.0000**	**1,990.4254**	**1,990.4254**	**0.0236**	**0.0000**	**1,991.0163**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8532	88.8532	3.2800e-003	0.0000	88.9353
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8532**	**88.8532**	**3.2800e-003**	**0.0000**	**88.9353**

3.6 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8531	88.8531	3.2800e-003	0.0000	88.9352
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8531**	**88.8531**	**3.2800e-003**	**0.0000**	**88.9352**

3.6 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0412	0.2647	0.6268	1.0400e-003		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	89.1937	89.1937	3.3000e-003	0.0000	89.2761
Total	**2.7569**	**0.2647**	**0.6268**	**1.0400e-003**		**3.4600e-003**	**3.4600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**89.1937**	**89.1937**	**3.3000e-003**	**0.0000**	**89.2761**

3.6 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5790	0.3200	4.3659	0.0218	3.5263	0.0110	3.5373	0.9365	0.0101	0.9467	0.0000	1,978.4675	1,978.4675	0.0220	0.0000	1,979.0175
Total	**0.5790**	**0.3200**	**4.3659**	**0.0218**	**3.5263**	**0.0110**	**3.5373**	**0.9365**	**0.0101**	**0.9467**	**0.0000**	**1,978.4675**	**1,978.4675**	**0.0220**	**0.0000**	**1,979.0175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0412	0.2647	0.6268	1.0400e-003		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	89.1936	89.1936	3.3000e-003	0.0000	89.2760
Total	**2.7569**	**0.2647**	**0.6268**	**1.0400e-003**		**3.4600e-003**	**3.4600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**89.1936**	**89.1936**	**3.3000e-003**	**0.0000**	**89.2760**

3.6 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5790	0.3200	4.3659	0.0218	3.5263	0.0110	3.5373	0.9365	0.0101	0.9467	0.0000	1,978.4675	1,978.4675	0.0220	0.0000	1,979.0175
Total	**0.5790**	**0.3200**	**4.3659**	**0.0218**	**3.5263**	**0.0110**	**3.5373**	**0.9365**	**0.0101**	**0.9467**	**0.0000**	**1,978.4675**	**1,978.4675**	**0.0220**	**0.0000**	**1,979.0175**

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8532	88.8532	3.2800e-003	0.0000	88.9353
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8532**	**88.8532**	**3.2800e-003**	**0.0000**	**88.9353**

3.6 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8531	88.8531	3.2800e-003	0.0000	88.9352
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8531**	**88.8531**	**3.2800e-003**	**0.0000**	**88.9352**

3.6 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8532	88.8532	3.2800e-003	0.0000	88.9353
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8532**	**88.8532**	**3.2800e-003**	**0.0000**	**88.9353**

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8531	88.8531	3.2800e-003	0.0000	88.9352
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8531**	**88.8531**	**3.2800e-003**	**0.0000**	**88.9352**

3.6 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0409	0.2627	0.6220	1.0300e-003		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	88.5128	88.5128	3.2700e-003	0.0000	88.5946
Total	**2.7358**	**0.2627**	**0.6220**	**1.0300e-003**		**3.4300e-003**	**3.4300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**88.5128**	**88.5128**	**3.2700e-003**	**0.0000**	**88.5946**

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5746	0.3175	4.3326	0.0217	3.4994	0.0109	3.5103	0.9294	0.0100	0.9394	0.0000	1,963.3647	1,963.3647	0.0218	0.0000	1,963.9105
Total	**0.5746**	**0.3175**	**4.3326**	**0.0217**	**3.4994**	**0.0109**	**3.5103**	**0.9294**	**0.0100**	**0.9394**	**0.0000**	**1,963.3647**	**1,963.3647**	**0.0218**	**0.0000**	**1,963.9105**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0409	0.2627	0.6220	1.0300e-003		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	88.5127	88.5127	3.2700e-003	0.0000	88.5945
Total	**2.7358**	**0.2627**	**0.6220**	**1.0300e-003**		**3.4300e-003**	**3.4300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**88.5127**	**88.5127**	**3.2700e-003**	**0.0000**	**88.5945**

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5746	0.3175	4.3326	0.0217	3.4994	0.0109	3.5103	0.9294	0.0100	0.9394	0.0000	1,963.3647	1,963.3647	0.0218	0.0000	1,963.9105
Total	**0.5746**	**0.3175**	**4.3326**	**0.0217**	**3.4994**	**0.0109**	**3.5103**	**0.9294**	**0.0100**	**0.9394**	**0.0000**	**1,963.3647**	**1,963.3647**	**0.0218**	**0.0000**	**1,963.9105**

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0400	0.2530	0.6237	1.0300e-003		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	88.8532	88.8532	3.1300e-003	0.0000	88.9314
Total	**2.7453**	**0.2530**	**0.6237**	**1.0300e-003**		**2.5900e-003**	**2.5900e-003**		**2.5900e-003**	**2.5900e-003**	**0.0000**	**88.8532**	**88.8532**	**3.1300e-003**	**0.0000**	**88.9314**

3.6 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4415	0.2569	3.6500	0.0208	3.5128	8.4500e-003	3.5213	0.9330	7.7700e-003	0.9407	0.0000	1,887.2243	1,887.2243	0.0165	0.0000	1,887.6357
Total	**0.4415**	**0.2569**	**3.6500**	**0.0208**	**3.5128**	**8.4500e-003**	**3.5213**	**0.9330**	**7.7700e-003**	**0.9407**	**0.0000**	**1,887.2243**	**1,887.2243**	**0.0165**	**0.0000**	**1,887.6357**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0400	0.2530	0.6237	1.0300e-003		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	88.8531	88.8531	3.1300e-003	0.0000	88.9313
Total	**2.7453**	**0.2530**	**0.6237**	**1.0300e-003**		**2.5900e-003**	**2.5900e-003**		**2.5900e-003**	**2.5900e-003**	**0.0000**	**88.8531**	**88.8531**	**3.1300e-003**	**0.0000**	**88.9313**

3.6 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4415	0.2569	3.6500	0.0208	3.5128	8.4500e-003	3.5213	0.9330	7.7700e-003	0.9407	0.0000	1,887.2243	1,887.2243	0.0165	0.0000	1,887.6357
Total	**0.4415**	**0.2569**	**3.6500**	**0.0208**	**3.5128**	**8.4500e-003**	**3.5213**	**0.9330**	**7.7700e-003**	**0.9407**	**0.0000**	**1,887.2243**	**1,887.2243**	**0.0165**	**0.0000**	**1,887.6357**

3.7 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0730	0.3121	1.0125	1.8000e-003		0.0120	0.0120		0.0120	0.0120	0.0000	154.2369	154.2369	5.9400e-003	0.0000	154.3853
Paving	0.0669					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1399**	**0.3121**	**1.0125**	**1.8000e-003**		**0.0120**	**0.0120**		**0.0120**	**0.0120**	**0.0000**	**154.2369**	**154.2369**	**5.9400e-003**	**0.0000**	**154.3853**

3.7 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7300e-003	9.6000e-004	0.0130	7.0000e-005	0.0105	3.0000e-005	0.0106	2.8000e-003	3.0000e-005	2.8300e-003	0.0000	5.9058	5.9058	7.0000e-005	0.0000	5.9074
Total	**1.7300e-003**	**9.6000e-004**	**0.0130**	**7.0000e-005**	**0.0105**	**3.0000e-005**	**0.0106**	**2.8000e-003**	**3.0000e-005**	**2.8300e-003**	**0.0000**	**5.9058**	**5.9058**	**7.0000e-005**	**0.0000**	**5.9074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0730	0.3121	1.0125	1.8000e-003		0.0120	0.0120		0.0120	0.0120	0.0000	154.2367	154.2367	5.9400e-003	0.0000	154.3851
Paving	0.0669					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1399**	**0.3121**	**1.0125**	**1.8000e-003**		**0.0120**	**0.0120**		**0.0120**	**0.0120**	**0.0000**	**154.2367**	**154.2367**	**5.9400e-003**	**0.0000**	**154.3851**

3.7 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7300e-003	9.6000e-004	0.0130	7.0000e-005	0.0105	3.0000e-005	0.0106	2.8000e-003	3.0000e-005	2.8300e-003	0.0000	5.9058	5.9058	7.0000e-005	0.0000	5.9074
Total	**1.7300e-003**	**9.6000e-004**	**0.0130**	**7.0000e-005**	**0.0105**	**3.0000e-005**	**0.0106**	**2.8000e-003**	**3.0000e-005**	**2.8300e-003**	**0.0000**	**5.9058**	**5.9058**	**7.0000e-005**	**0.0000**	**5.9074**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2965	1.2678	4.1133	7.2900e-003		0.0487	0.0487		0.0487	0.0487	0.0000	626.5874	626.5874	0.0241	0.0000	627.1902
Paving	0.2719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5684**	**1.2678**	**4.1133**	**7.2900e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**626.5874**	**626.5874**	**0.0241**	**0.0000**	**627.1902**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0200e-003	3.8800e-003	0.0529	2.6000e-004	0.0428	1.3000e-004	0.0429	0.0114	1.2000e-004	0.0115	0.0000	23.9922	23.9922	2.7000e-004	0.0000	23.9989
Total	**7.0200e-003**	**3.8800e-003**	**0.0529**	**2.6000e-004**	**0.0428**	**1.3000e-004**	**0.0429**	**0.0114**	**1.2000e-004**	**0.0115**	**0.0000**	**23.9922**	**23.9922**	**2.7000e-004**	**0.0000**	**23.9989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2965	1.2678	4.1133	7.2900e-003		0.0487	0.0487		0.0487	0.0487	0.0000	626.5866	626.5866	0.0241	0.0000	627.1895
Paving	0.2719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5684**	**1.2678**	**4.1133**	**7.2900e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**626.5866**	**626.5866**	**0.0241**	**0.0000**	**627.1895**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0200e-003	3.8800e-003	0.0529	2.6000e-004	0.0428	1.3000e-004	0.0429	0.0114	1.2000e-004	0.0115	0.0000	23.9922	23.9922	2.7000e-004	0.0000	23.9989
Total	**7.0200e-003**	**3.8800e-003**	**0.0529**	**2.6000e-004**	**0.0428**	**1.3000e-004**	**0.0429**	**0.0114**	**1.2000e-004**	**0.0115**	**0.0000**	**23.9922**	**23.9922**	**2.7000e-004**	**0.0000**	**23.9989**

3.7 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2639	0.9544	4.1284	7.3200e-003		0.0304	0.0304		0.0304	0.0304	0.0000	628.9973	628.9973	0.0211	0.0000	629.5258
Paving	0.2729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5369**	**0.9544**	**4.1284**	**7.3200e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**628.9973**	**628.9973**	**0.0211**	**0.0000**	**629.5258**

3.7 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-003	3.1400e-003	0.0446	2.5000e-004	0.0429	1.0000e-004	0.0430	0.0114	9.0000e-005	0.0115	0.0000	23.0618	23.0618	2.0000e-004	0.0000	23.0668
Total	**5.4000e-003**	**3.1400e-003**	**0.0446**	**2.5000e-004**	**0.0429**	**1.0000e-004**	**0.0430**	**0.0114**	**9.0000e-005**	**0.0115**	**0.0000**	**23.0618**	**23.0618**	**2.0000e-004**	**0.0000**	**23.0668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2639	0.9544	4.1284	7.3200e-003		0.0304	0.0304		0.0304	0.0304	0.0000	628.9966	628.9966	0.0211	0.0000	629.5251
Paving	0.2729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5369**	**0.9544**	**4.1284**	**7.3200e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**628.9966**	**628.9966**	**0.0211**	**0.0000**	**629.5251**

3.7 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-003	3.1400e-003	0.0446	2.5000e-004	0.0429	1.0000e-004	0.0430	0.0114	9.0000e-005	0.0115	0.0000	23.0618	23.0618	2.0000e-004	0.0000	23.0668
Total	**5.4000e-003**	**3.1400e-003**	**0.0446**	**2.5000e-004**	**0.0429**	**1.0000e-004**	**0.0430**	**0.0114**	**9.0000e-005**	**0.0115**	**0.0000**	**23.0618**	**23.0618**	**2.0000e-004**	**0.0000**	**23.0668**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Unrefrigerated Warehouse-No Rail	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Unmitigated	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.5681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.7230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0344	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.5681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.7230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0344	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 4.2:

CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (High-Cube Transload Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,352.24	1000sqft	31.04	1,352,244.00	0
User Defined Industrial	1,352.24	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (High-Cube Transload Operations) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	30.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	1,352,240.00	1,352,244.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	1,271.11	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
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tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
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tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
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tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
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tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
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tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
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tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
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tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
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tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
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tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
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tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
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tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

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tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
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tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
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tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	2.5200e-003	6.5310e-003
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tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
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tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
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tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28

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tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
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tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	0.16	0.02

tblVehicleEF	MHD	0.02	2.3480e-003
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tblVehicleEF	MHD	0.03	4.4460e-003
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tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003

tblVehicleEF	MHD	5.1400e-004	4.3000e-005
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tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

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tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
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tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
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tblVehicleEF	OBUS	0.05	0.25
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tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
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tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
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tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
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tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
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tblVehicleEF	SBUS	0.03	7.6460e-003

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tblVehicleEF	SBUS	0.01	2.6280e-003
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tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
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tblVehicleEF	SBUS	0.84	0.06
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tblVehicleEF	SBUS	0.04	4.1270e-003
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tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94

tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
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tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
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tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

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tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
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tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
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tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
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tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
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tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.48
tblVehicleTrips	ST_TR	0.00	0.46
tblVehicleTrips	SU_TR	1.68	0.44
tblVehicleTrips	SU_TR	0.00	0.43
tblVehicleTrips	WD_TR	1.68	0.71
tblVehicleTrips	WD_TR	0.00	0.69
tblWater	IndoorWaterUseRate	312,705,500.00	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Energy	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	470.6868	470.6868	0.0171	5.3900e-003	472.7206
Mobile	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368
Offroad	0.1036	0.1769	0.6645	3.5700e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	306.9957	306.9957	8.1000e-003	0.0000	307.1982
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**4.0339**	**33.8724**	**12.4090**	**0.1414**	**6.5922**	**0.2435**	**6.8357**	**1.7962**	**0.2334**	**2.0296**	**1,273.4563**	**16,843.0554**	**18,116.5117**	**92.5525**	**0.9243**	**20,705.7663**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Energy	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	470.6868	470.6868	0.0171	5.3900e-003	472.7206
Mobile	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368
Offroad	0.1036	0.1769	0.6645	3.5700e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	306.9957	306.9957	8.1000e-003	0.0000	307.1982
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**4.0339**	**33.8724**	**12.4090**	**0.1414**	**6.5922**	**0.2435**	**6.8357**	**1.7962**	**0.2334**	**2.0296**	**1,273.4563**	**16,843.0554**	**18,116.5117**	**92.5525**	**0.9243**	**20,705.7663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368
Unmitigated	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	965.37	648.27	599.99	3,719,446	3,719,446
User Defined Industrial	927.50	622.84	576.46	12,140,598	12,140,598
Total	1,892.87	1,271.11	1,176.45	15,860,044	15,860,044

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	367.4967	367.4967	0.0152	3.5000e-003	368.9173
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	367.4967	367.4967	0.0152	3.5000e-003	368.9173
NaturalGas Mitigated	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033
NaturalGas Unmitigated	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	1.93371e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0104**	**0.0948**	**0.0796**	**5.7000e-004**		**7.2000e-003**	**7.2000e-003**		**7.2000e-003**	**7.2000e-003**	**0.0000**	**103.1901**	**103.1901**	**1.9800e-003**	**1.8900e-003**	**103.8033**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	1.93371e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0104**	**0.0948**	**0.0796**	**5.7000e-004**		**7.2000e-003**	**7.2000e-003**		**7.2000e-003**	**7.2000e-003**	**0.0000**	**103.1901**	**103.1901**	**1.9800e-003**	**1.8900e-003**	**103.8033**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2.56926e+006	367.4967	0.0152	3.5000e-003	368.9173
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**367.4967**	**0.0152**	**3.5000e-003**	**368.9173**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2.56926e+006	367.4967	0.0152	3.5000e-003	368.9173
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**367.4967**	**0.0152**	**3.5000e-003**	**368.9173**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Unmitigated	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1400e-003	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Total	**3.2952**	**3.1000e-004**	**0.0343**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0671**	**0.0671**	**1.7000e-004**	**0.0000**	**0.0714**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1400e-003	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Total	**3.2952**	**3.1000e-004**	**0.0343**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0671**	**0.0671**	**1.7000e-004**	**0.0000**	**0.0714**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,544.6895	38.1306	0.9189	3,771.7907
Unmitigated	2,544.6895	38.1306	0.9189	3,771.7907

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	903.0824	53.3706	0.0000	2,237.3485
Unmitigated	903.0824	53.3706	0.0000	2,237.3485

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1036	0.1769	0.6645	3.5700e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	306.9957	306.9957	8.1000e-003	0.0000	307.1982
Total	**0.1036**	**0.1769**	**0.6645**	**3.5700e-003**		**6.5500e-003**	**6.5500e-003**		**6.5500e-003**	**6.5500e-003**	**0.0000**	**306.9957**	**306.9957**	**8.1000e-003**	**0.0000**	**307.1982**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Lot Acreage based on the Total Project Area minus the area of the Industrial uses.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	T24E	6.47	4.53
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	2.20	1.54
tblEnergyUse	T24NG	55.15	38.61
tblEnergyUse	T24NG	1.92	1.34
tblEnergyUse	T24NG	15.36	10.75

tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00
tblLandUse	LotAcreage	5.00	1.72
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	82.13	61.60
tblSolidWaste	SolidWasteGenerationRate	215.75	161.81
tblSolidWaste	SolidWasteGenerationRate	98.96	74.22
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
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tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
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tblVehicleEF	HHD	3.8000e-005	1.0000e-006
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tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
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tblVehicleEF	HHD	3.8000e-005	1.0000e-006
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tblVehicleEF	HHD	1.3600e-004	1.7500e-004
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tblVehicleEF	HHD	8.8750e-003	8.8210e-003
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tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
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tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
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tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
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tblVehicleEF	LDA	0.01	0.02
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tblVehicleEF	LDA	0.04	0.04
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tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
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tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
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tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004

tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
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tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
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tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004

tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004

tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004

tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06

tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003

tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003

tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003

tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003

tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003

tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13

tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00

tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04

tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
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tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89

tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26

tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
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tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
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tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	141.89	48.95
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tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003

tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
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tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
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tblVehicleEF	MHD	0.17	0.02
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tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
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tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004

tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70

tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
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tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23

tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003

tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83

tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02

tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01

tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003

tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004

tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07

tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	11.00	25.00
tblVehicleTrips	PR_TP	54.00	75.00
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	WD_TR	8.17	8.36

tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	8.11	11.26
tblWater	IndoorWaterUseRate	3,805,015.50	3,044,012.40
tblWater	IndoorWaterUseRate	15,220,421.71	12,176,337.37
tblWater	IndoorWaterUseRate	640,264,190.29	512,211,352.23

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Energy	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	4,170.8291	4,170.8291	0.1250	0.0585	4,191.3743
Mobile	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285
Waste						0.0000	0.0000		0.0000	0.0000	60.4162	0.0000	60.4162	3.5705	0.0000	149.6786
Water						0.0000	0.0000		0.0000	0.0000	167.3298	997.8217	1,165.1514	17.2275	0.4153	1,719.5985
Total	**9.7977**	**21.0939**	**53.8540**	**0.1973**	**22.6397**	**0.2873**	**22.9270**	**6.0575**	**0.2797**	**6.3372**	**227.7460**	**24,071.5048**	**24,299.2508**	**21.9172**	**0.4738**	**24,988.3609**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Energy	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	4,170.8291	4,170.8291	0.1250	0.0585	4,191.3743
Mobile	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285
Waste						0.0000	0.0000		0.0000	0.0000	60.4162	0.0000	60.4162	3.5705	0.0000	149.6786
Water						0.0000	0.0000		0.0000	0.0000	167.3298	997.8217	1,165.1514	17.2275	0.4153	1,719.5985
Total	**9.7977**	**21.0939**	**53.8540**	**0.1973**	**22.6397**	**0.2873**	**22.9270**	**6.0575**	**0.2797**	**6.3372**	**227.7460**	**24,071.5048**	**24,299.2508**	**21.9172**	**0.4738**	**24,988.3609**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285
Unmitigated	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,254.00	1,228.50	892.50	2,860,337	2,860,337
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	7,757.00	9,476.88	4335.69	19,456,499	19,456,499
Research & Development	14,661.94	2,474.11	1445.40	37,275,792	37,275,792
Total	23,672.95	13,179.48	6,673.59	59,592,629	59,592,629

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	75	0	25
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,041.5335	2,041.5335	0.0842	0.0194	2,049.4254
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,041.5335	2,041.5335	0.0842	0.0194	2,049.4254
NaturalGas Mitigated	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	2,129.2955	2,129.2955	0.0408	0.0390	2,141.9488
NaturalGas Unmitigated	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	2,129.2955	2,129.2955	0.0408	0.0390	2,141.9488

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	3.26025e+006	0.0176	0.1598	0.1343	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	173.9794	173.9794	3.3300e-003	3.1900e-003	175.0132
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	336992	1.8200e-003	0.0165	0.0139	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	17.9832	17.9832	3.4000e-004	3.3000e-004	18.0901
Research & Development	3.63042e+007	0.1958	1.7796	1.4949	0.0107		0.1353	0.1353		0.1353	0.1353	0.0000	1,937.3330	1,937.3330	0.0371	0.0355	1,948.8456
Total		**0.2152**	**1.9560**	**1.6430**	**0.0117**		**0.1487**	**0.1487**		**0.1487**	**0.1487**	**0.0000**	**2,129.2955**	**2,129.2955**	**0.0408**	**0.0390**	**2,141.9489**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	3.26025e+006	0.0176	0.1598	0.1343	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	173.9794	173.9794	3.3300e-003	3.1900e-003	175.0132
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	336992	1.8200e-003	0.0165	0.0139	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	17.9832	17.9832	3.4000e-004	3.3000e-004	18.0901
Research & Development	3.63042e+007	0.1958	1.7796	1.4949	0.0107		0.1353	0.1353		0.1353	0.1353	0.0000	1,937.3330	1,937.3330	0.0371	0.0355	1,948.8456
Total		**0.2152**	**1.9560**	**1.6430**	**0.0117**		**0.1487**	**0.1487**		**0.1487**	**0.1487**	**0.0000**	**2,129.2955**	**2,129.2955**	**0.0408**	**0.0390**	**2,141.9489**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.09275e+006	156.3024	6.4400e-003	1.4900e-003	156.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.96853e+006	281.5699	0.0116	2.6800e-003	282.6584
Research & Development	1.12116e+007	1,603.6613	0.0661	0.0153	1,609.8605
Total		**2,041.5335**	**0.0842**	**0.0194**	**2,049.4254**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.09275e+006	156.3024	6.4400e-003	1.4900e-003	156.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.96853e+006	281.5699	0.0116	2.6800e-003	282.6584
Research & Development	1.12116e+007	1,603.6613	0.0661	0.0153	1,609.8605
Total		**2,041.5335**	**0.0842**	**0.0194**	**2,049.4254**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Unmitigated	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0255	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Total	**5.4762**	**2.5100e-003**	**0.2790**	**2.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.9000e-004**	**9.9000e-004**	**0.0000**	**0.5459**	**0.5459**	**1.4100e-003**	**0.0000**	**0.5811**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0255	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Total	**5.4762**	**2.5100e-003**	**0.2790**	**2.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.9000e-004**	**9.9000e-004**	**0.0000**	**0.5459**	**0.5459**	**1.4100e-003**	**0.0000**	**0.5811**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,165.1514	17.2275	0.4153	1,719.5985
Unmitigated	1,165.1514	17.2275	0.4153	1,719.5985

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.04401 / 0.422779	7.3070	0.0995	2.4000e-003	10.5091
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.1763 / 9.32865	41.3655	0.3983	9.7300e-003	54.2214
Research & Development	512.211 / 0	1,116.4790	16.7297	0.4032	1,654.8680
Total		**1,165.1514**	**17.2275**	**0.4153**	**1,719.5985**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.04401 / 0.422779	7.3070	0.0995	2.4000e-003	10.5091
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.1763 / 9.32865	41.3655	0.3983	9.7300e-003	54.2214
Research & Development	512.211 / 0	1,116.4790	16.7297	0.4032	1,654.8680
Total		**1,165.1514**	**17.2275**	**0.4153**	**1,719.5985**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	60.4162	3.5705	0.0000	149.6786
Unmitigated	60.4162	3.5705	0.0000	149.6786

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	61.6	12.5042	0.7390	0.0000	30.9787
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	161.81	32.8460	1.9411	0.0000	81.3745
Research & Development	74.22	15.0660	0.8904	0.0000	37.3254
Total		**60.4162**	**3.5705**	**0.0000**	**149.6786**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	61.6	12.5042	0.7390	0.0000	30.9787
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	161.81	32.8460	1.9411	0.0000	81.3745
Research & Development	74.22	15.0660	0.8904	0.0000	37.3254
Total		**60.4162**	**3.5705**	**0.0000**	**149.6786**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Warehouse Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6,310.47	1000sqft	144.87	6,310,472.00	0
User Defined Industrial	6,310.47	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.60
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.12
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.05
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.23
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	6,310,470.00	6,310,472.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Annual

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	23.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	5,931.84	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
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tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
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tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
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tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
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tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
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tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
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tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
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tblVehicleEF	LDT2	1.3430e-003	0.03
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tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
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tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	4.1200e-004	1.4000e-004
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tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
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tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28

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tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	8.6500e-004	2.5700e-004
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tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
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tblVehicleEF	MHD	0.16	0.02

tblVehicleEF	MHD	0.02	2.3480e-003
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tblVehicleEF	MHD	0.03	4.4460e-003
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tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
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tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003

tblVehicleEF	MHD	5.1400e-004	4.3000e-005
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tblVehicleEF	OBUS	3.96	1.75
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tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
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tblVehicleEF	OBUS	0.24	0.58
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tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	0.29	0.86

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tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
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tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
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tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
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tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
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tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
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tblVehicleEF	SBUS	0.84	0.06
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tblVehicleEF	SBUS	0.04	4.1270e-003
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tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94

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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
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tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
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tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
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tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

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tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	ST_TR	0.00	0.03
tblVehicleTrips	SU_TR	1.68	0.05
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	1.68	1.38
tblVehicleTrips	WD_TR	0.00	0.36
tblWater	IndoorWaterUseRate	1,459,296,187.50	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Energy	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	2,196.5384	2,196.5384	0.0799	0.0251	2,206.0296
Mobile	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936
Offroad	0.4766	0.8135	3.0569	0.0164		0.0301	0.0301		0.0301	0.0301	0.0000	1,412.1800	1,412.1800	0.0373	0.0000	1,413.1119
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**18.0871**	**49.4856**	**35.8480**	**0.3017**	**20.7043**	**0.4217**	**21.1260**	**5.6731**	**0.4053**	**6.0784**	**1,273.4563**	**34,007.8760**	**35,281.3323**	**92.9578**	**0.9441**	**37,886.6077**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Energy	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	2,196.5384	2,196.5384	0.0799	0.0251	2,206.0296
Mobile	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936
Offroad	0.4766	0.8135	3.0569	0.0164		0.0301	0.0301		0.0301	0.0301	0.0000	1,412.1800	1,412.1800	0.0373	0.0000	1,413.1119
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**18.0871**	**49.4856**	**35.8480**	**0.3017**	**20.7043**	**0.4217**	**21.1260**	**5.6731**	**0.4053**	**6.0784**	**1,273.4563**	**34,007.8760**	**35,281.3323**	**92.9578**	**0.9441**	**37,886.6077**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936
Unmitigated	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	8,736.85	753.47	301.01	27,391,071	27,391,071
User Defined Industrial	2,243.37	193.10	77.62	23,894,173	23,894,173
Total	10,980.22	946.57	378.63	51,285,244	51,285,244

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.116800	0.052600	0.226900	0.603700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,714.9847	1,714.9847	0.0707	0.0163	1,721.6143
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,714.9847	1,714.9847	0.0707	0.0163	1,721.6143
NaturalGas Mitigated	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153
NaturalGas Unmitigated	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	9.02397e+006	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0487**	**0.4424**	**0.3716**	**2.6500e-003**		**0.0336**	**0.0336**		**0.0336**	**0.0336**	**0.0000**	**481.5537**	**481.5537**	**9.2300e-003**	**8.8300e-003**	**484.4153**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	9.02397e+006	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0487**	**0.4424**	**0.3716**	**2.6500e-003**		**0.0336**	**0.0336**		**0.0336**	**0.0336**	**0.0000**	**481.5537**	**481.5537**	**9.2300e-003**	**8.8300e-003**	**484.4153**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.19899e+007	1,714.9847	0.0707	0.0163	1,721.6143
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**1,714.9847**	**0.0707**	**0.0163**	**1,721.6143**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.19899e+007	1,714.9847	0.0707	0.0163	1,721.6143
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**1,714.9847**	**0.0707**	**0.0163**	**1,721.6143**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Unmitigated	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.9249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.4379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0146	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Total	**15.3775**	**1.4400e-003**	**0.1600**	**1.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**0.3132**	**0.3132**	**8.1000e-004**	**0.0000**	**0.3334**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.9249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.4379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0146	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Total	**15.3775**	**1.4400e-003**	**0.1600**	**1.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**0.3132**	**0.3132**	**8.1000e-004**	**0.0000**	**0.3334**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,544.6895	38.1306	0.9189	3,771.7907
Unmitigated	2,544.6895	38.1306	0.9189	3,771.7907

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	903.0824	53.3706	0.0000	2,237.3485
Unmitigated	903.0824	53.3706	0.0000	2,237.3485

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	23	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.4766	0.8135	3.0569	0.0164		0.0301	0.0301		0.0301	0.0301	0.0000	1,412.1800	1,412.1800	0.0373	0.0000	1,413.1119
Total	**0.4766**	**0.8135**	**3.0569**	**0.0164**		**0.0301**	**0.0301**		**0.0301**	**0.0301**	**0.0000**	**1,412.1800**	**1,412.1800**	**0.0373**	**0.0000**	**1,413.1119**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 4.3:

EMFAC2017 OUTPUT

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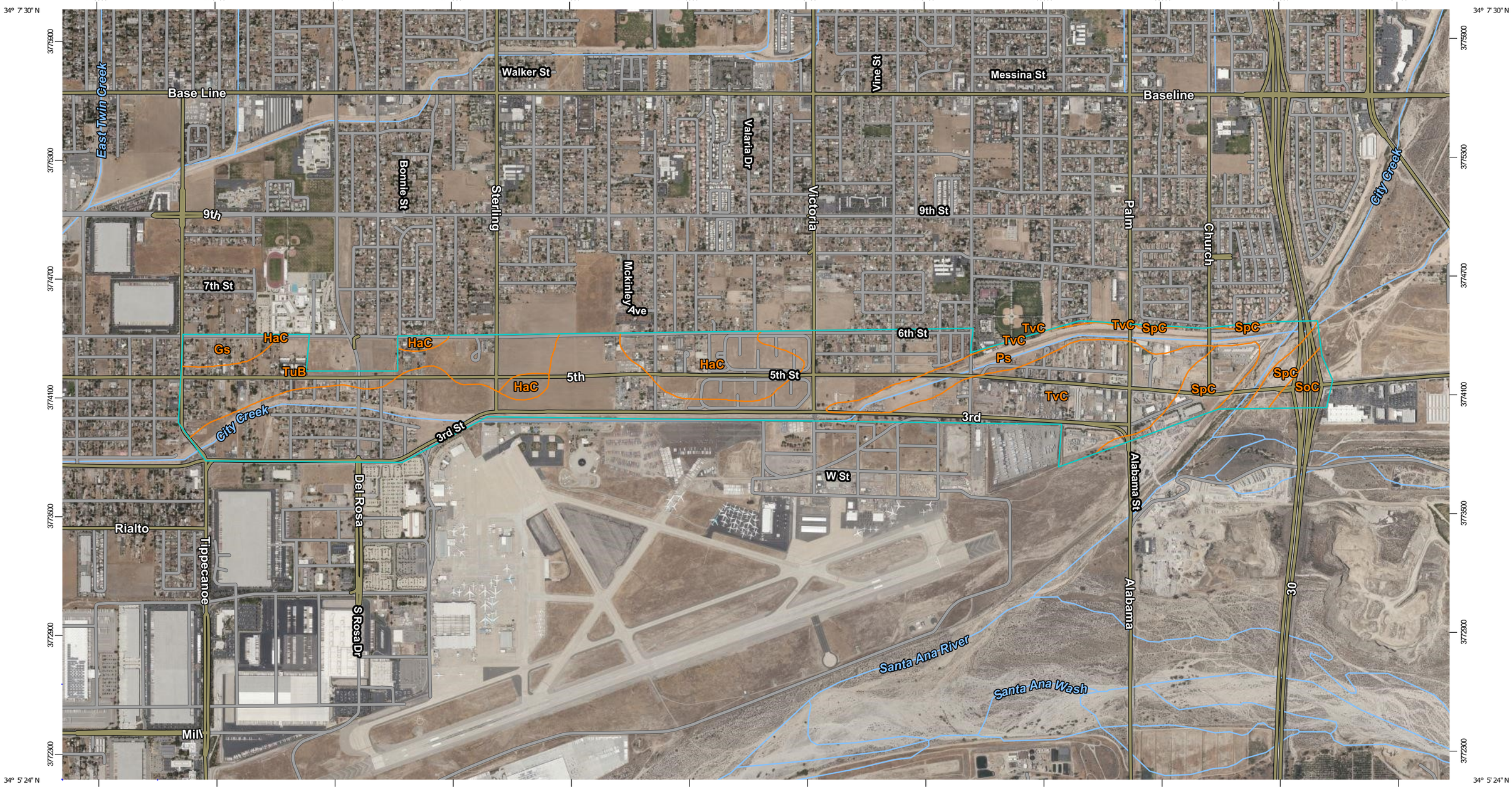
EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: SAN BERNARDINO
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Vehicle Class	Miles Per Gallon																			
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
HHDT	6.16	6.33	6.70	6.77	6.89	7.03	7.18	7.34	7.50	7.66	7.82	7.98	8.13	8.28	8.42	8.55	8.67	8.78	8.87	8.96
LDA	31.01	31.93	32.93	33.77	34.93	36.03	37.08	38.07	38.99	39.84	40.51	41.21	41.84	42.41	42.92	43.36	43.74	44.06	44.33	44.56
LDT1	26.03	26.79	27.61	28.27	29.19	30.05	30.87	31.64	32.37	33.04	33.58	34.15	34.67	35.15	35.59	35.98	36.34	36.66	36.94	37.20
LDT2	24.23	25.15	26.11	26.93	27.98	28.99	29.97	30.89	31.75	32.56	33.22	33.91	34.55	35.13	35.65	36.12	36.53	36.89	37.21	37.47
LHDT1	13.55	13.75	13.97	14.06	14.32	14.58	14.85	15.12	15.37	15.60	15.75	15.96	16.14	16.32	16.48	16.63	16.76	16.87	16.98	17.07
LHDT2	13.65	13.87	14.12	14.23	14.50	14.79	15.09	15.38	15.66	15.92	16.09	16.33	16.55	16.76	16.95	17.13	17.29	17.44	17.57	17.70
MCY	37.26	37.23	37.21	36.94	36.92	36.90	36.89	36.88	36.86	36.86	36.75	36.74	36.73	36.72	36.71	36.69	36.68	36.67	36.65	36.64
MDV	19.69	20.36	21.08	21.71	22.55	23.38	24.19	24.99	25.75	26.47	27.08	27.70	28.28	28.80	29.27	29.69	30.07	30.40	30.69	30.94
MH	5.86	5.94	6.02	6.07	6.17	6.28	6.40	6.51	6.63	6.74	6.81	6.91	6.99	7.08	7.15	7.22	7.28	7.33	7.38	7.43
MHDT	9.73	10.04	10.45	10.50	10.68	10.85	11.05	11.23	11.40	11.56	11.67	11.81	11.93	12.05	12.16	12.25	12.35	12.44	12.51	12.59
OBUS	6.15	6.30	6.44	6.49	6.65	6.79	6.95	7.08	7.21	7.33	7.41	7.51	7.60	7.69	7.77	7.84	7.91	7.96	8.02	8.06
SBUS	7.97	8.06	8.15	8.26	8.37	8.48	8.60	8.72	8.85	8.99	9.13	9.28	9.42	9.56	9.69	9.81	9.93	10.05	10.17	10.28
UBUS	4.71	4.71	4.72	4.73	4.73	4.73	4.74	4.78	4.78	4.82	4.82	4.83	4.83	4.83	4.84	4.84	4.84	4.84	4.84	4.84

APPENDIX 5

USDA Soil Map

Soil Map—San Bernardino County Southwestern Part, California



475500 476100 476700 477300 477900 478500 479100 479700 480300 480900 481500 482100

34° 7' 30" N 117° 16' 3" W 117° 11' 28" W

3775900 3775300 3774700 3774100 3773500 3772900 3772300

34° 5' 24" N

Map Scale: 1:19,000 if printed on B landscape (17" x 11") sheet.

N

0 250 500 1000 1500 Meters

0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 12, May 27, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 1, 2018—Jun 30, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Gs	Grangeville fine sandy loam, saline-alkali	15.9	2.3%
HaC	Hanford coarse sandy loam, 2 to 9 percent slopes	71.6	10.2%
Ps	Psamments, Fluvents and Frequently flooded soils	73.6	10.5%
SoC	Soboba gravelly loamy sand, 0 to 9 percent slopes	13.1	1.9%
SpC	Soboba stony loamy sand, 2 to 9 percent slopes	42.5	6.0%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	90.5	12.9%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	396.1	56.3%
Totals for Area of Interest		**703.3**	**100.0%**

APPENDIX 6

Greenhouse Gas Analysis

Airport Gateway Specific Plan

GREENHOUSE GAS ANALYSIS

CITIES OF SAN BERNARDINO AND HIGHLAND

PREPARED BY:

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JANUARY 15, 2021

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LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
2017 Scoping Plan	Final 2017 Scoping Plan Update
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation Landscaping Act of 2006
AGSP	Airport Gateway Specific Plan
Annex I	Industrialized Nations
APA	Administrative Procedure Act
AQIA	*Airport Gateway Specific Plan Air Quality Impact Analysis*
BAU	Business As Usual
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
$C_2H_2F_4$	Tetrafluroethane
$C_2H_4F_2$	Ethylidene Fluoride
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	*2019 CEQA Statute and Guidelines*
CDFA	California Department of Food and Agriculture
CF_4	Tetrafluoromethane

CFC	Chlorofluorocarbons
CFC-113	Trichlorotrifluoroethane
CH_4	Methane
County	County of San Bernardino
CNRA	California Natural Resources Agency
CNRA 2009	*2009 California Climate Adaptation Strategy*
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
Convention	United Nation's Framework Convention on Climate Change
COP	Conference of the Parties
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
DOF	Department of Finance
DWR	Department of Water Resources
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
EV	Electric Vehicle
FED	Functional Equivalent Document
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
GO-Biz	Governor's Office of Business and Economic Development
gpd	Gallons Per Day
gpm	Gallons Per Minute
GWP	Global Warming Potential
H_2O	Water
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
HFC-23	Fluoroform
HFC-134a	1,1,1,2-tetrafluoroethane
HFC-152a	1,1-difluoroethane
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
IBANK	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
ISO	Independent System Operator
ITE	Institute of Transportation Engineers

kWh	Kilowatt Hours
lbs	Pounds
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard or Executive Order S-01-07
LDA	Light-Duty Auto
LDT1/LDT2	Light-Duty Trucks
LEV III	Low-Emission Vehicle
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LULUCF	Land-Use, Land-Use Change and Forestry
MCY	Motorcycles
MD	Medium Duty
MDT	Medium-Duty Trucks
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Tucks
MMR	Mandatory Reporting Rule
$MMTCO_2e$	Million Metric Ton of Carbon Dioxide Equivalent
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
$MMTCO_2e/yr$	Million Metric Ton of Carbon Dioxide Equivalent Per Year
MT/yr	Metric Tons Per Year
$MTCO_2e$	Metric Ton of Carbon Dioxide Equivalent
$MTCO_2e/yr$	Metric Ton of Carbon Dioxide Equivalent Per Year
MW	Megawatts
MWh	Megawatts Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2O	Nitrous Oxide
NDC	Nationally Determined Contributions
NF_3	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO_X	Nitrogen Oxides
Non-Annex I	Developing Nations
OAL	Office of Administrative Law
OPR	Office of Planning and Research
PFC	Perfluorocarbons

ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	Airport Gateway Specific Plan
RPS	Renewable Portfolio Standards
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SB 32	California Global Warming Solutions Act of 2006
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SB 1078	Renewable Portfolio Standards
SB 1368	Statewide Retail Provider Emissions Performance Standards
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
sf	Square Feet
SF_6	Sulfur Hexaflouride
SGC	Strategic Growth Council
SHGC	Solar Heat Gain Coefficient
SLPS	Short-Lived Climate Pollutant Strategy
SP	Service Population
SR-210	State Route 210
SWCRB	State Water Resources Control Board
TIS	*Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland*
Title 20	Appliance Energy Efficiency Standards
Title 24	California Building Code
U.N.	United Nations
U.S.	United States
UNFCCC	United Nations' Framework Convention on Climate Change
URBEMIS	Urban Emissions
UTR	Utility Tractors
VFP	Vehicle Fueling Positions

VMT	Vehicle Miles Traveled
WCI	Western Climate Initiative
WRI	World Resources Institute
ZE/NZE	Zero and Near-Zero Emissions
ZEV	Zero-Emissions Vehicles

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Airport Gateway Specific Plan Greenhouse Gas Analysis* (GHGA) is summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (*CEQA Guidelines* (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: Would the Project generate GHG emissions either directly or indirectly, that may have a significant impact on the environment?	3.8	*Potentially Significant*	*Significant and Unavoidable*
GHG Impact #2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	3.8	*Potentially Significant*	*Significant and Unavoidable*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill (SB) 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations (CCR)). Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020 (10).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, AB 1493, LCFS, and RPS, and therefore are accounted for in the Project's emission calculations.

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1 INTRODUCTION

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the proposed Airport Gateway Specific Plan (Project). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the Project.

1.1 SITE LOCATION

The Airport Gateway Specific Plan Project is located immediately north of the San Bernardino International Airport (SBIA) west. The Specific Plan area is bounded generally by 6th Street and Highland Creek on the north, 3rd Street and the SBIA on the south, State Route 210 (SR-210) on the east, and Tippecanoe Avenue on the west as shown on Exhibit 1-A. North of the Specific Plan area (on the north side of 6th Street) is bordered by a mix of low- and medium-density residential uses and vacant parcels, as well as several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park and the Highland Branch Library.

1.2 PROJECT DESCRIPTION

The Project area covers approximately 679.2 acres. The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194.2 acres). The Specific Plan area is depicted on Exhibit 1-B.

The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area. The Airport Gateway Specific Plan (AGSP) would replace the existing uses within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail/hotel uses. Development of the Specific Plan area will be accomplished over time, as market conditions allow, and as developers are successful in assembling individual parcels into parcels large enough for the allowed uses.

This analysis is intended to describe emission impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP

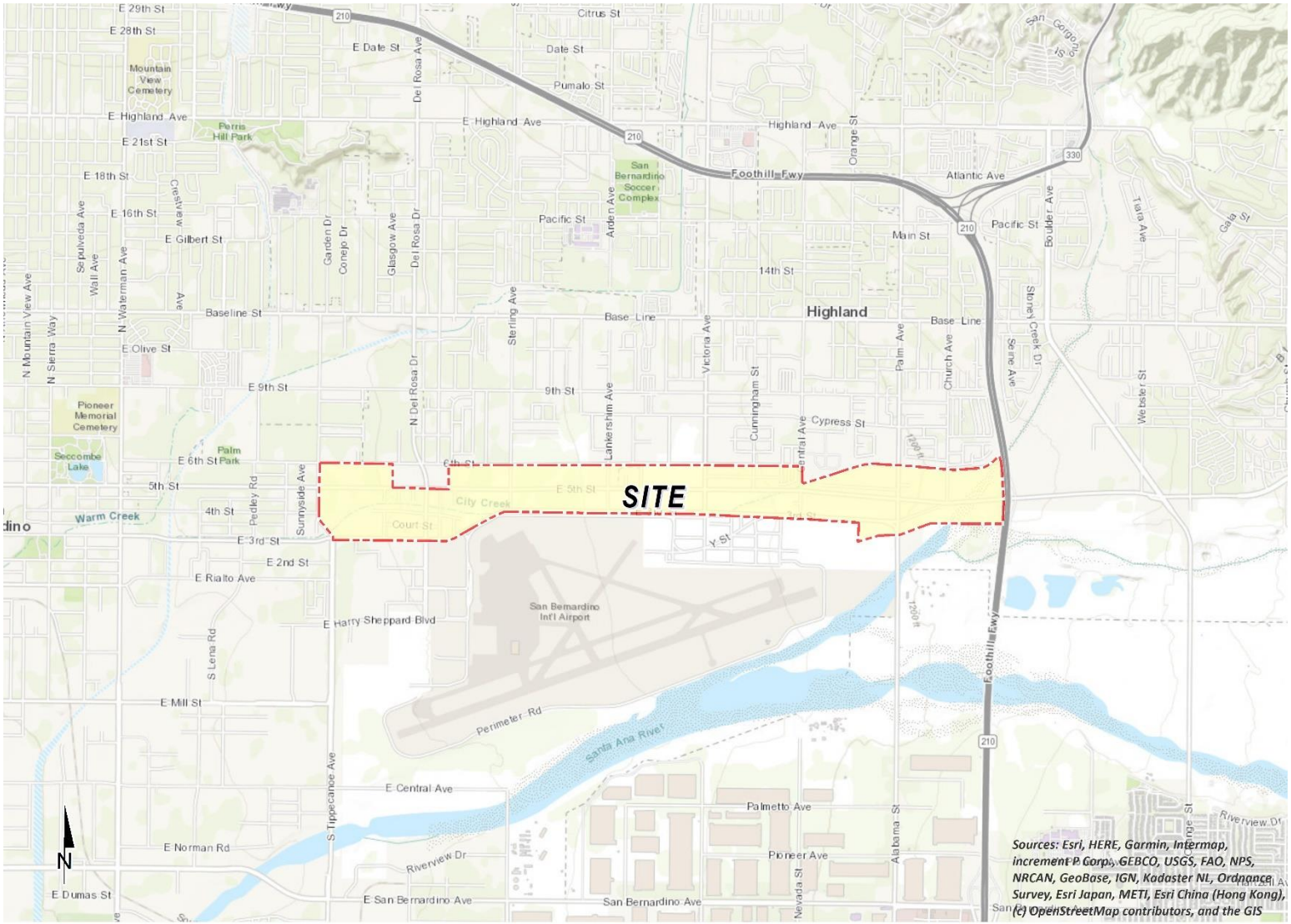
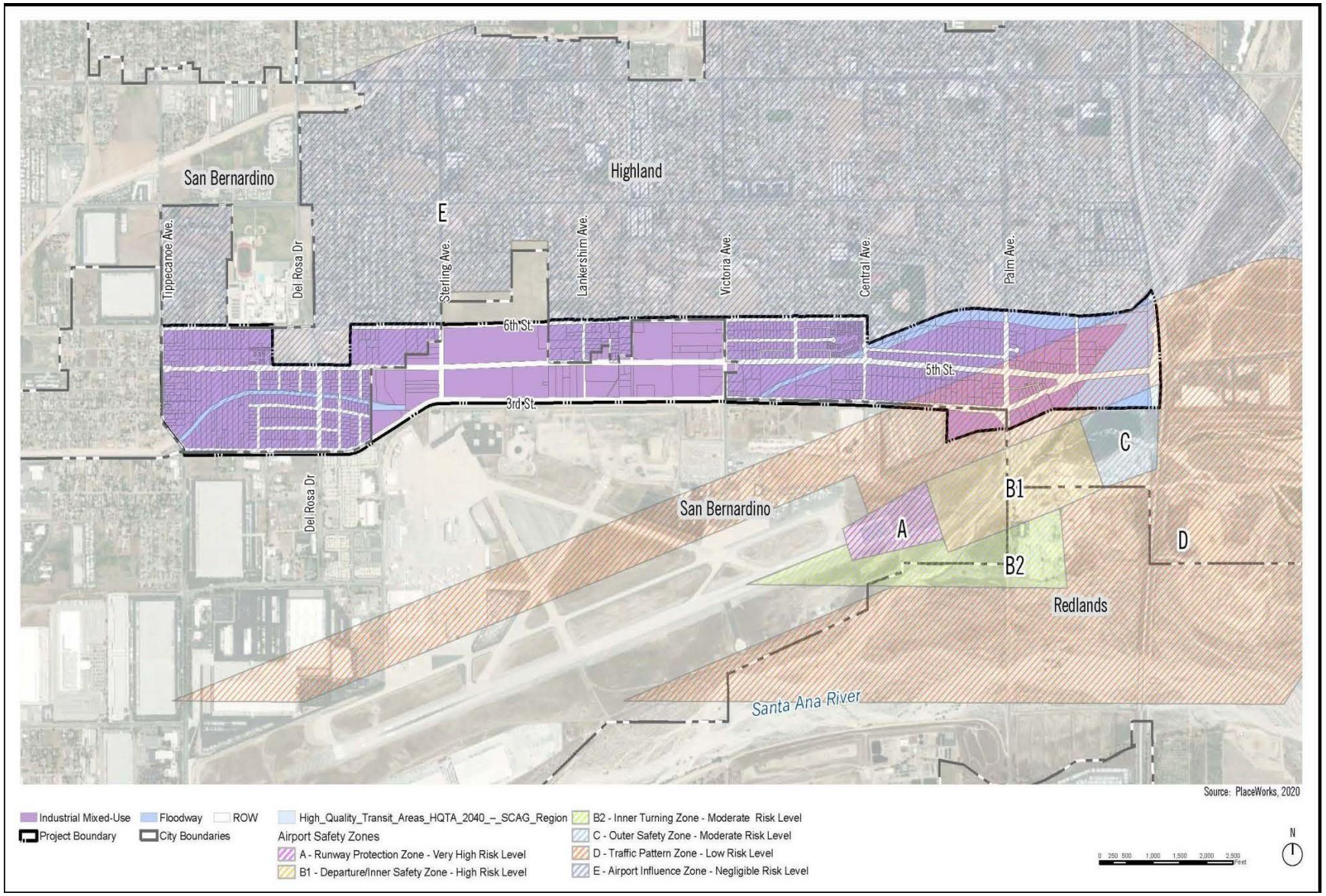


EXHIBIT 1-B: SITE PLAN



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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated (see Table 3-1 later in this report) because these gases are the primary contributors to GCC from development projects.

Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GHGS

GHGs	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

GHGs	Description	Sources	Health Effects
	unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (12).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (13).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (15).

GHGs	Description	Sources	Health Effects
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (16).	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (17).

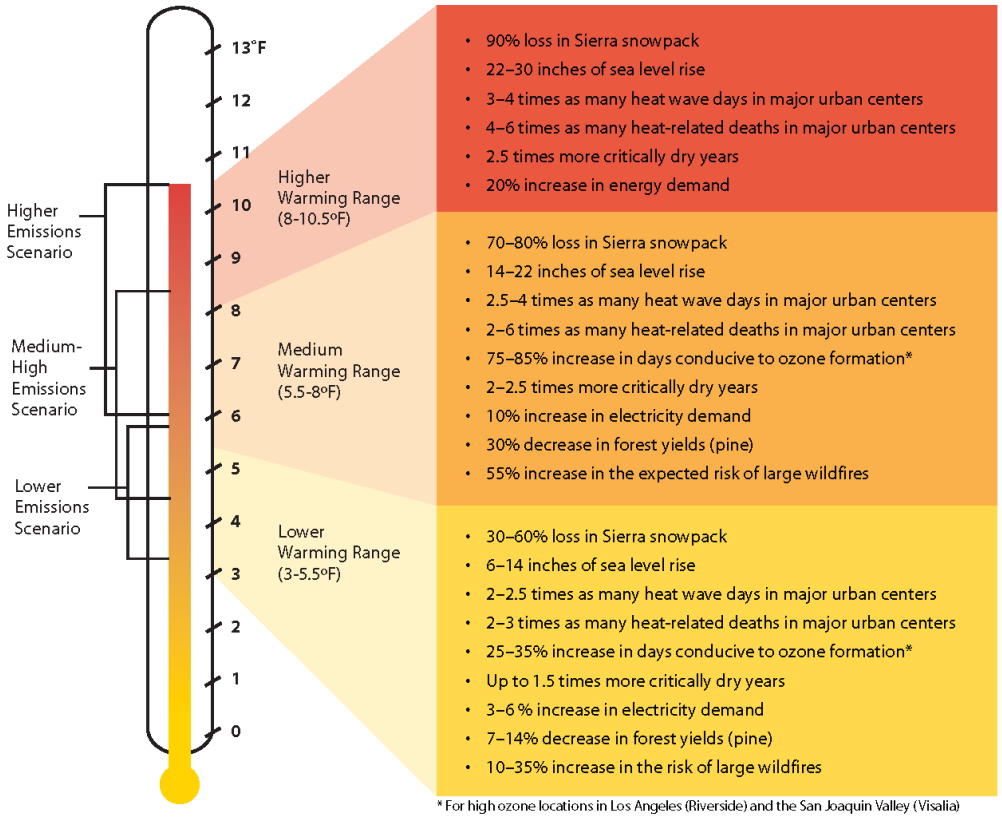
GHGs	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (17).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years (18).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

GHGs	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HCF-134a emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (19). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

GHGs	Description	Sources	Health Effects
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (20).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (21).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (22). Exhibit 2-A presents the potential impacts of global warming (23).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for the 2nd Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO_2 to 23,900 for SF_6 and GWP for the IPCC's 5th Assessment Report range from 1 for CO_2 to 23,500 for SF_6 (24).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2nd Assessment Report	5th Assessment Report
CO_2	See*	1	1
CH_4	12 .4	21	28
N_2O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF_6	3,200	23,900	23,500

*As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.
Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

2.5 GHG EMISSIONS INVENTORIES

2.5.1 GLOBAL

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2017. Based on the latest available data, the sum of these emissions totaled approximately 29,216,501 gigagram (Gg) CO_2e[1] (25) (26) as summarized on Table 2-3.

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2017 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014.

2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2017.

TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION [2]

Emitting Countries	GHG Emissions (Gg CO_2e)
China	11,911,710
United States	6,456,718
European Union (28-member countries)	4,323,163
India	3,079,810
Russian Federation	2,155,470
Japan	1,289,630
Total	**29,216,501**

2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls, but is still a substantial contributor to the United States (U.S.) emissions inventory total (27). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 million metric tons of CO_2e per year ($MMTCO_2e/yr$) (28).

2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of

[2] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in https://www.climatewatchdata.org site to reference Non-Annex I countries of China and India.

death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

2.6.2 WATER RESOURCES

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on the Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. Winter tourism could be adversely affected, under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

2.6.3 AGRICULTURE

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations

already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

2.6.4 FORESTS AND LANDSCAPES

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

2.6.5 RISING SEA LEVELS

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.7 REGULATORY SETTING

2.7.1 INTERNATIONAL

Climate change is a global issue involving GHG emissions from all around the world; therefore, international organizations and countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE (CONVENTION)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG

emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

INTERNATIONAL CLIMATE CHANGE TREATIES

The Kyoto Protocol is an international agreement linked to the Convention. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

On September 23, 2014 more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the U.N. Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12, 2015 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a) (29).

On November 4, 2019, the Trump administration formally notified the U.N. that the U.S. would withdraw from the Paris Agreement. It should be noted that withdrawal will be effective one year after notification in 2020.

2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* (EPA) 549 U.S. 497 (2007), decided on April 2, 2007, the U.S. Supreme Court (Supreme Court) found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Federal Clean Air Act (CAA). The Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (30).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On August 2,2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend exiting Corporate Average Fuel Economy (CAFE) and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (31).

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO_2 per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016 the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

CAP-AND-TRADE

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N_2O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32, requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SMARTWAY PROGRAM

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (32):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.

2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs will have to comply with CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel will eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

2.7.3 CALIFORNIA

2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

EXECUTIVE ORDER S-3-05

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "GHGs" as defined under AB 32 include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

CARB approved the 1990 GHG emissions level of 427 $MMTCO_2e$ on December 6, 2007 (33). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (34). At that level, a 28.4% reduction was required to achieve the 427 $MMTCO_2e$ 1990 inventory. In October 2010, CARB prepared an updated BAU 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7% reduction from BAU is required to achieve 1990 levels (35) .

PROGRESS IN ACHIEVING AB 32 TARGETS AND REMAINING REDUCTIONS REQUIRED

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012 (36). The State has achieved the Executive Order S-3-05 target for

2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 $MMTCO_2e$ (AB 32 2020 target)
- 2000: 463 $MMTCO_2e$ (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 $MMTCO_2e$ (an average 5% reduction needed to achieve 1990 base)

CARB has also made substantial progress in achieving its goal of achieving 1990 emissions levels by 2020. As described earlier in this section, CARB revised the 2020 BAU inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4% and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 $MMTCO_2e$ BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

SB 375 – THE SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008

Passing the Senate on August 30, 2008, Senate Bill (SB) 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the

regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The second phase of the implementation for the Pavley bill is currently in effect and was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles (EV) and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

SB 350— CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015

In October 2015, the legislature approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

SB 32

On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (11).

CARB SCOPING PLAN

CARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32 (34). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33%;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS; and
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

CARB approved the First Scoping Plan Update on May 22, 2014. The First Scoping Plan Update identifies the next steps for California's climate change strategy. The First Scoping Plan Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050. The First Scoping Plan Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. The First Scoping Plan Update does not set new targets for the State but describes a path that would achieve the long term 2050 goal of Executive Order S-3-05 for emissions to decline to 80% below 1990 levels by 2050 (36).

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the amount of reductions California must achieve to return to the 1990 emissions level by 2020 as required by AB 32. The no-action scenario is known as "business-as-usual" or BAU. CARB originally defined the BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the Scoping Plan.

As part of CEQA compliance for the Scoping Plan, CARB prepared a Supplemental Functional Equivalent Document (FED) in 2011. The FED included an updated 2020 BAU emissions inventory projection based on current economic forecasts (i.e., as influenced by the economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. CARB staff derived the updated emissions estimates by projecting emissions growth,

by sector, from the state's average emissions from 2006–2008. The new BAU estimate includes emission reductions for the million-solar-roofs program, the AB 1493 motor vehicle GHG emission standards, and the LCFS. In addition, CARB factored into the 2020 BAU inventory emissions reductions associated with 33% RPS for electricity generation. The updated BAU estimate of 507 $MMTCO_2e$ by 2020 requires a reduction of 80 $MMTCO_2e$, or a 16% reduction below the estimated BAU levels to return to 1990 levels (i.e., 427 $MMTCO_2e$) by 2020.

In order to provide a BAU reduction that is consistent with the original definition in the Scoping Plan and with threshold definitions used in thresholds adopted by lead agencies for CEQA purposes and many CAPs, the updated inventory without regulations was also included in the Supplemental FED. CARB 2020 BAU projection for GHG emissions in California was originally estimated to be 596 $MMTCO_2e$. The updated CARB 2020 BAU projection in the Supplemental FED is 545 $MMTCO_2e$. Considering the updated BAU estimate of 545 $MMTCO_2e$ by 2020, CARB estimates a 21.7% reduction below the estimated statewide BAU levels is necessary to return to 1990 emission levels (i.e., 427 $MMTCO_2e$) by 2020, instead of the approximate 28.4% BAU reduction previously reported under the original Climate Change Scoping Plan (34).

2017 CLIMATE CHANGE SCOPING PLAN UPDATE

In compliance with AB 32 and the 2008 Scoping Plan, the target year 2020 has been fulfilled and will look onward to the 2017 Scoping Plan that should be in compliance by 2030.

In November 2017, CARB released the 2017 Scoping Plan Update, which identifies the State's post-2020 reduction strategy. The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The 2017 Scoping Plan Update establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030.

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.

- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of zero-emission vehicles (ZEV) trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and hydroflurocarbon emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the 2017 Scoping Plan acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the 2017 Scoping Plan Update also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, is on track to meet the 2020 reduction targets under AB 32 and could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that GHG emissions through 2020 could range from 317 to 415 $MTCO_2e$ per year ($MTCO_2e$/yr), "indicating that existing state policies will likely allow California to meet its target [of 2020 levels under AB 32]." CALGAPS also showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$/yr, indicating that "even if all modeled policies are not

implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (37) (38).

CAP-AND-TRADE PROGRAM

The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020 and ultimately achieving an 80% reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap will be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. See Title 17 of the CCR §§ 95800 to 96023). The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25,000 $MTCO_2e$/yr must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$/yr "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or "MRR").

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" (30) for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30% of its 2013 GHG emissions.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the First Update:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities.*

> *Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative (CARB 2014)."*

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

> *"The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the "capped sectors." Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33% [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85% of California's GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures* (36)*."*

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85% of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels

in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with VMT are covered by the Cap-and-Trade Program (39). In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the Program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[3]

2.7.3.2 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the 2009 California Climate Adaptation Strategy (CNRA 2009) was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to

[3] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of CARB Scoping Plan for the implementation of AB 32, the Court enjoined CARB from further rulemaking under AB 32 until CARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, CARB filed an appeal. On June 24, 2011, the Court of Appeal granted CARB's petition staying the trail court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, CARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. CARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

express the 2030 target in terms of $MMTCO_2e$. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable for local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

EXECUTIVE ORDER S-01-07 – LCFS

The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the LCFS on April 23, 2009.

The Board approved the LCFS regulation in 2009 and began implementation on January 1, 2011. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

EXECUTIVE ORDER B-55-18 AND SB 100

Executive Order B-55-18 and SB 100. SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department

of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR

CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

TITLE 24 CCR

CCR Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.

Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction waste and demolition ordinances and defers to them as the ruling guidance provided they establish a minimum 65% diversion requirement.

The code also provides exemptions for areas not served by construction waste and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020.

The 2019 Title 24 standards will result in less energy use, thereby reducing GHG emissions associated with energy consumption in the South Coast Air Basin (SCAB) and across the State of California. For example, the 2019 Title 24 standards will require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting requirements for nonresidential buildings.

The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings (such as the Project) will use approximately 30% less energy due to lighting upgrade requirements (19).

Because the Project will be constructed after January 1, 2019, the 2019 CALGreen standards are applicable to the Project and require, among other items (20):

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3).
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8)
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).

- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
  - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (5.303.1.1 and 5.303.1.2).
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

MWELO

The MWELO was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20% consistent with (SBX-7-7) 2020 mandate are expected upon compliance with the ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed Department of Water

Resources (DWR) to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015 effective December 15, 2015. New development projects that include landscape areas of 500 sf or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Reporting requirements for local agencies.

CARB REFRIGERANT MANAGEMENT PROGRAM

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

TRACTOR-TRAILER GHG REGULATION

The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

PHASE I AND 2 HEAVY-DUTY VEHICLE GHG STANDARDS

CARB has adopted a new regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing heavy-duty vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. In September 2011, the EPA adopted their new rule for HDTs and engines. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8.

Compliance requirements begin with model year 2014 with stringency levels increasing through model year 2018. The rule organizes truck compliance into three groupings, which include a) heavy-duty pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year HDT vehicles, including trailers. But as discussed above, the EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests a similar rollback of Phase 2 standards for MDT and HDT vehicles may be pursued.

In February 2019, the OAL approved the Phase 2 Heavy-Duty Vehicle GHG Standards and became effective April 1, 2019. The Phase 2 GHG standards are needed to offset projected VMT growth and keep heavy-duty truck CO_2 emissions declining. The federal Phase 2 standards establish for the first time, federal emissions requirements for trailers hauled by heavy-duty tractors. The federal Phase 2 standards are more technology-forcing than the federal Phase 1 standards, requiring manufacturers to improve existing technologies or develop new technologies to meet the standards. The federal Phase 2 standards for tractors, vocational vehicles, and heavy-duty pick-up trucks and vans (PUVs) will be phased-in from 2021-2027, additionally for trailers, the standards are phased-in from 2018 (2020 in California) through 2027 (40).

SB 97 AND THE *CEQA GUIDELINES* UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA.

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *CEQA Guidelines* for implementing the CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

Section 15064.4 was amended to state that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental

contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (41).

2.7.4 REGIONAL

The project is within the SCAB, which is under the jurisdiction of the SCAQMD.

SCAQMD

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, that could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:

  - Residential and commercial land use: 3,000 $MTCO_2e$/yr
  - Industrial land use: 10,000 $MTCO_2e$/yr
  - Based on land use type: residential: 3,500 $MTCO_2e$/yr; commercial: 1,400 $MTCO_2e$/yr; or mixed use: 3,000 $MTCO_2e$/yr
- Tier 4 has the following options:
  - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$ per SP per year for projects and 6.6 $MTCO_2e$ per SP per year for plans;
  - Option 3, 2035 target: 3.0 $MTCO_2e$ per SP per year for projects and 4.1 $MTCO_2e$ per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

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3 PROJECT GHG IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (1):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

3.3 MODELS EMPLOYED TO ANALYZE GHGS

3.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (42). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

3.3.2 EMFAC2017 EMISSION RATES

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources (43). This GHGA utilizes annual EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities.

Because the EMFAC2017 emission rates are associated with vehicle fuel types while CalEEMod vehicle emission factors are aggregated to include all fuel types for each individual vehicle class, the EMFAC2017 emission rates for different fuel types of a vehicle class are averaged by activity or by population and activity to derive CalEEMod emission factors. The equations applied to

obtain CalEEMod vehicle emission factors for each emission type are detailed in CalEEMod User's Guide *Appendix A: Calculation Details for CalEEMod* (44). EMFAC2017 emission rates utilized in this analysis can be found in Appendix 3.1 of this report.

3.4 LIFE-CYCLE ANALYSIS NOT REQUIRED

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time (45). Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the Project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, an LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate (46). Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

Project construction actvities would generate CO_2 and CH_4 emissions The report *Airport Gateway Specific Plan Air Quality Impact Analysis Report* (AQIA) contains detailed information regarding Project construction activities (47). As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

3.5.1 CONSTRUCTION DURATION

For purposes of analysis, construction is expected to commence in June 2021 and will last through December 2040. The construction schedule utilized in the analysis, shown in Table 3-1, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent[4]. The duration of construction activity and

[4] As shown in the CalEEMod User's Guide Version 2016.3.2, Section 4.3 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (48).

3.5.2 CONSTRUCTION EQUIPMENT

The construction equipment fleet was based on CalEEMod defaults and confirmed with the Project Applicant. A summary of construction equipment assumptions by phase is provided at Table 3-1.

TABLE 3-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Demolition	06/01/2021	05/30/2022	260
Site Preparation	05/31/2022	12/12/2022	140
Grading	12/13/2022	07/22/2024	420
Building Construction	07/23/2024	12/31/2040	4,290
Paving	10/05/2038	12/31/2040	585
Architectural Coating	01/13/2032	12/31/2040	2,340

TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 2)

Phase Name	Equipment	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	2	8
	Excavators	5	8
	Rubber Tired Dozers	4	8
Site Preparation	Crawler Tractors	7	8
	Rubber Tired Dozers	5	8
Grading	Crawler Tractors	4	8
	Excavators	4	8
	Graders	2	8
	Rubber Tired Dozers	2	8
	Scrapers	4	8
Building Construction	Cranes	2	8
	Crawler Tractors	5	8
	Forklifts	5	8
	Generator Sets	2	8
	Welders	2	8

TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 2)

Phase Name	Equipment	Amount	Hours Per Day
Paving	Pavers	4	8
	Paving Equipment	4	8
	Rollers	4	8
Architectural Coating	Air Compressors	2	8

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-2 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

3.5.3 CONSTRUCTION EMISSIONS SUMMARY

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions (49). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3-3. Detailed construction model outputs are presented in Appendix 3.2.

TABLE 3-3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e[5]
Total GHG Emissions	448,602.84	18.15	0.00	449,056.51
Amortized Construction Emissions ($MTCO_2e$)	**14,953.43**	**0.60**	**0.00**	**14,968.55**

Source CalEEMod annual construction-source emissions are presented in Appendix 3.1

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Cargo Handling Equipment Emissions
- Water Supply, Treatment, and Distribution
- Solid Waste

[5] CalEEMod reports the most common GHGs emitted which include CO_2, CH_4, and N_2O. These GHGs are then converted into the CO_2e by multiplying the individual GHG by the GWP.

3.6.1 AREA SOURCE EMISSIONS

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

3.6.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. Based on information provided by the Project Applicant, the Project would not utilize natural gas and therefore no air quality emissions from energy sources would occur.

TITLE 24 ENERGY EFFICIENCY STANDARDS

The CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard.

3.6.3 MOBILE SOURCE EMISSIONS

The Project GHG emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland* (TIS) were utilized in this analysis (50).

APPROACH FOR ANALYSIS OF THE PROJECT

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose for the proposed industrial land uses.

For the proposed industrial uses, it is important to note that although the TIS does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[6] & LDT2[7]), Medium-Duty-Vehicles (MDV), Motorcycles

[6] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[7] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

(MCY) vehicle types. In order to account for emissions generated by passenger cars, the following fleet mix was utilized in this analysis:

TABLE 3-4: PASSENGER CAR FLEET MIX

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse/ Warehousing	LDA	63.82
	LDT1	3.67
	LDT2	20.69
	MDV	11.23
	MCY	5.90

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicles types.

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 40 miles[8] and an assumption of 100% primary trips for the proposed industrial land uses.

In order to be consistent with the TIS, trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided in the *Trip Generation*. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1[9] & LHDT2 [10])/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. In order to account for emissions generated by trucks, the following fleet mix was utilized in this analysis.

TABLE 3-5: TRUCK FLEET MIX

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse	HHDT	100
High-Cube Fulfillment Center Warehouse	LHDT1	11.68
	LHDT2	5.26
	MHDT	22.69
	HHDT	60.37

3.6.4 ON-SITE CARGO HANDLING EQUIPMENT EMISSIONS

It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment

[8] The average trip length for heavy trucks were based on the SCAQMD documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 AQMP. SCAQMD's "Preliminary Warehouse Emission Calculations" cites 39.9-mile trip length for heavy-heavy trucks (41). As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purpose of this analysis (39)

[9] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

[10] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (51). For this particular Project, based on the maximum square footage of warehouse building space permitted by the Project, on-site modeled operational equipment includes up to twenty-eight (28) 200 hp, compressed natural gas or gasoline-powered yard tractors operating at 4 hours a day for 365 days of the year.

3.6.5 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. CalEEMod default parameters were used to estimate GHG emissions associated with water supply, treatment and distribution for the Project scenario, which were adjusted manually to reflect compliance with Title 24 standards.

3.6.6 SOLID WASTE

Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the Project were calculated by CalEEMod defaults modified to reflect Title 24 standards.

3.7 EMISSIONS SUMMARY

EXITING CONDITIONS

As previously stated, the existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area. The annual GHG emissions associated with the operation of the existing conditions are estimated to be 29,037.19 $MTCO_2e$/yr as summarized in Table 3-6. CalEEMod outputs for existing conditions are presented in Appendix 3.3.

PROPOSED PROJECT

The annual GHG emissions associated with the operation of the proposed Project are summarized in Table 3-7. It should be noted that the existing development emissions (previously presented in Table 3-6) were subtracted from the Project GHG emissions to determine the new emissions from the proposed Project. As shown in Table 3-7, construction and operation of the Project would generate a net total of approximately 69,512.06 $MTCO_2e$/yr. Detailed operation model outputs for the Project are presented in Appendix 3.4.

TABLE 3-6: EXISTING GHG EMISSIONS

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Area Source	310.54	0.32	0.01	320.47
Energy Source	7,285.68	0.25	0.08	7,317.19
Mobile Sources	19,091.54	1.12	0.00	19,119.53
Waste	377.26	22.30	0.00	934.64
Water Usage	1,121.33	6.92	0.17	1,345.36
Total $MTCO_2e$ (All Sources)	**29,037.19**			

Source: CalEEMod output, See Appendix 3.3 for detailed model outputs.

TABLE 3-7: PROJECT GHG EMISSIONS

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	14,953.43	0.60	0.00	14,968.55
Area Source	0.93	0.00	0.00	0.99
Energy Source	6,838.05	0.22	0.09	6,870.12
Mobile Source	61,017.79	3.36	0.00	61,101.72
On-Site Equipment	1,719.18	0.05	0.00	1,720.31
Waste	1,866.58	110.31	0.00	4,624.38
Water Usage	6,254.53	93.49	2.25	9,263.18
Total CO_2e (All Sources)	**98,549.25**			
Existing Emissions	29,037.19			
Net Emissions (Project – Existing)	***69,512.06***			

Source: CalEEMod output, See Appendix 3.4 for detailed model outputs.

3.8 GHG EMISSIONS FINDINGS AND RECOMMENDATIONS

3.8.1 GHG IMPACT 1

Potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.

A numerical threshold for determining the significance of GHG emissions in the SCAB has not been established by the SCAQMD for Projects where it is not the lead agency. As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future

development. The latest threshold developed by SCAQMD using this method is 3,000 $MTCO_2e$/yr for all projects (52).

As shown on Table 3-7, the Project has the potential to generate a total of approximately 69,512.06 $MTCO_2e$/yr. As such, the Project would exceed the SCAQMD's recommended numeric threshold of 3,000 $MTCO_2e$/yr if it were applied. Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

No feasible mitigation measures exist that would reduce these emissions to levels that are less-than-significant. Project operational-source GHG emissions exceedances of applicable SCAQMD numeric threshold are therefore considered significant and unavoidable. Moreover, more than 70 percent of all operational-source emissions (by weight) would be generated by Project mobile sources (traffic). Neither the Project Applicant nor the Lead Agency (Cities of San Bernardino and Highland) can substantively or materially affect reductions in Project mobile-source emissions beyond the regulatory requirements. As such, project operational-source GHG emissions exceedances of applicable SCAQMD numeric thresholds would be significant and unavoidable impacts in regards to GHG impact 1.

3.8.2 GHG IMPACT 2

The Project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As shown above, the Project would be consistent with the County of San Bernardino GHG Plan. Additionally, the Project's consistency with AB 32 and SB 32 are discussed below.

SB 32/2017 SCOPING PLAN CONSISTENCY

The *2017 Scoping Plan* Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 3-8 summarizes the project's consistency with the *2017 Scoping Plan*. As summarized, the project will not conflict with any of the provisions of the *Scoping Plan* and in fact supports seven of the action categories.

TABLE 3-8: 2017 SCOPING PLAN CONSISTENCY SUMMARY[11]

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.

[11] Source California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017 and CARB, Climate Change Scoping Plan, December 2008.

Action	Responsible Parties	Consistency
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		Consistent. The Project would be designed and constructed to implement the energy efficiency measures for new commercial developments and would include several measures designed to reduce energy consumption. The Project would not interfere with or obstruct policies or strategies to establish annual targets for statewide energy efficiency savings and demand reduction.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		Consistent. The Project would be designed and constructed to implement energy efficiency measures acting to reduce electricity consumption. The Project includes energy efficient lighting and fixtures that meet the current Title 24 Standards. Further, the Project proposes contemporary industrial facilities that would incorporate energy efficient boilers, heaters, and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2025 targets.
At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.

Action	Responsible Parties	Consistency
Medium- and Heavy-Duty GHG Phase 2.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts improve transit-source emissions.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		Consistent. The Project implements Transportation Demand Measures (TDMs) that would act to reduce VMT.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).

Action	Responsible Parties	Consistency
By 2019, adjust performance measures used to select and design transportation facilities		
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	Consistent. This measure would apply to all trucks accessing the Project site, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to Improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		Consistent. The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.

Action	Responsible Parties	Consistency
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.	CARB	Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	Consistent. The Project would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The Project would not obstruct or interfere agency efforts to reduce SLPS emissions.
50 percent reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA SWRCB, Local Air Districts	Consistent. The Project would implement waste reduction and recycling measures consistent with State and City requirements. The Project would not obstruct or interfere agency efforts to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	Consistent. The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	Consistent. The Project site is designated for industrial uses. The Project does not propose land conversion. The Project would not obstruct or interfere agency efforts to protect land from conversion through conservation easements and other incentives.

Action	Responsible Parties	Consistency
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		Consistent. The Project site is vacant disturbed property and does not comprise an area that would effectively provide for carbon sequestration. The Project would not obstruct or interfere agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		Consistent. Where appropriate, Project designs will incorporate wood or wood products. The Project would not obstruct or interfere agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan		Consistent. The Project would not obstruct or interfere agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018	CARB	Consistent. The Project would not obstruct or interfere agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	Consistent. The Project would not obstruct or interfere agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	Consistent. The Project would not obstruct or interfere agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

As shown above, the Project would not conflict with any of the *2017 Scoping Plan* elements as any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030 (37). Although the Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, since the project operational-source GHG emissions exceedances of applicable SCAQMD numeric thresholds, this analysis concludes significant and unavoidable impacts in regard to GHG impact 2.

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50. **Kimley-Horn and Associates, Inc.** *Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland.* 2020.

51. **South Coast Air Quality Management District.** *SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results.* 2014.

52. —. BOARD MEETING DATE: December 5, 2008 Agenda No. 31. *South Coast Air Quality Management District.* [Online] December 5, 2008. http://www.aqmd.gov/hb/2008/December/081231a.htm .

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5 CERTIFICATIONS

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed Airport Gateway Specific Plan Project. The information contained in this GHG report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

Haseeb Qureshi
Associate Principal
URBAN CROSSROADS, INC.
hqureshi@urbanxroads.com

EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 3.1:

EMFAC2017 OUTPUT

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EMFAC2017 Derived CalEEMod Annual Emission Rates: Year 2040[1,2]

Season	Pollutant	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	MCY	SBUS	MH
Annual	CH4_IDLEX	0	0	0	0	0.0034148	0.002200959	0.002202974	0.027513711	0.0084188	0	0	0.0591195	0
Annual	CH4_RUNEX	0.0007005	0.0008856	0.0010698	0.0011646	0.0016435	0.001912824	0.000516025	0.082465793	0.0017929	4.4787723	0.3371296	0.0012442	0.0025726
Annual	CH4_STREX	0.0184777	0.0213176	0.0255607	0.0277092	0.0058039	0.003288138	0.004482094	1.98897E-07	0.0179989	0.007248	0.2285185	0.0049266	0
Annual	CO_IDLEX	0	0	0	0	0.1696665	0.129253365	0.288226312	6.594680128	0.5853213	0	0	2.8492274	0
Annual	CO_RUNEX	0.4079701	0.4441706	0.5003084	0.5063966	0.1718512	0.201157091	0.083631745	0.499918412	0.1913012	34.940218	17.153951	0.1557548	0.186181
Annual	CO_STREX	1.3460791	1.4639727	1.8192866	1.8554871	0.7282975	0.424038004	0.409173132	0.003524521	1.7459858	0.9030848	8.8576161	0.6295947	0
Annual	CO2_NBIO_IDLEX	0	0	0	0	7.6759097	12.1940482	48.24626411	862.1496196	71.511921	0	0	275.60884	0
Annual	CO2_NBIO_RUNEX	210.29758	250.97064	249.20215	302.34489	527.3362	527.0145992	777.2779408	1052.276366	1108.1094	1641.1972	213.74638	868.82631	823.9452
Annual	CO2_NBIO_STREX	41.144898	50.236409	50.015286	60.003154	8.5051727	5.722446462	4.32060618	0.026782913	15.662971	9.7191462	57.160369	3.8411367	0
Annual	NOX_IDLEX	0	0	0	0	0.0387528	0.05904946	0.259478732	5.340241796	0.3287317	0	0	1.2873931	0
Annual	NOX_RUNEX	0.0166519	0.0199869	0.0198569	0.022656	0.1170345	0.207345054	1.08042479	2.308932068	0.9189142	0.3512453	1.1148507	1.4167012	2.4730515
Annual	NOX_STREX[3]	0.1073172	0.1246128	0.1203986	0.1350663	0.1586532	0.095700979	1.892901492	2.43060668	0.8166144	0.0960303	0.2627524	1.943158	0
Annual	PM10_IDLEX	0	0	0	0	0.0010131	0.00149738	7.06182E-05	0.002023308	0.0001104	0	0	0.0003378	0
Annual	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.06052191	0.13034	0.0728339	0.01176	0.7448002	0.13034
Annual	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100175	0.010875472	0.012000003	0.035283881	0.012	0.026486	0.004	0.0109168	0.016
Annual	PM10_RUNEX	0.0006069	0.0006977	0.0006892	0.0006865	0.0039073	0.009754285	0.006830216	0.016907652	0.0067783	0.0027211	0.0024297	0.0040328	0.0394815
Annual	PM10_STREX	0.0007664	0.0008982	0.000809	0.0008373	0.0001763	9.78334E-05	6.13665E-05	3.28077E-07	0.0002136	0.0001779	0.0029183	6.561E-05	0
Annual	PM25_IDLEX	0	0	0	0	0.0009692	0.001432604	6.75633E-05	0.001935781	0.0001056	0	0	0.0003232	0
Annual	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025937961	0.05586	0.0312145	0.00504	0.3192001	0.05586
Annual	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025044	0.002718868	0.003000001	0.00882097	0.003	0.0066215	0.001	0.0027292	0.004
Annual	PM25_RUNEX	0.0005584	0.0006416	0.0006353	0.0006325	0.0037154	0.009319663	0.006531451	0.016176217	0.0064658	0.0025884	0.0022652	0.0038431	0.0377735
Annual	PM25_STREX	0.0007047	0.0008259	0.0007439	0.0007699	0.0001621	8.99542E-05	5.64242E-05	3.01655E-07	0.0001964	0.0001636	0.002723	6.032E-05	0
Annual	ROG_DIURN	0.0206776	0.0367563	0.0428478	0.0674939	0.0012626	0.000745369	0.000212855	1.09207E-06	0.0018922	0.001939	1.4286701	0.0011603	0
Annual	ROG_HTSK	0.0392592	0.0584272	0.0533754	0.0791041	0.0336291	0.018766617	0.007226437	3.63012E-05	0.0203932	0.0109253	0.7330723	0.0076464	0
Annual	ROG_IDLEX	0	0	0	0	0.0144655	0.012228381	0.011677864	0.43816961	0.0505336	0	0	0.2766359	0
Annual	ROG_RESTL	0.0189853	0.0349658	0.0406452	0.0644712	0.0008245	0.000495458	0.000140436	7.20404E-07	0.0009552	0.0008794	0.7443163	0.0005945	0
Annual	ROG_RUNEX	0.0020202	0.002724	0.0034642	0.0039199	0.0247373	0.035091263	0.007536833	0.02074256	0.0120973	0.0653194	2.2652225	0.0141886	0.0553874
Annual	ROG_RUNLS	0.1445834	0.2175969	0.2010001	0.2286124	0.1635365	0.094087921	0.034760323	0.000175206	0.2331662	0.0406774	1.2175821	0.0491518	0
Annual	ROG_STREX	0.0671548	0.0809068	0.0989218	0.1124144	0.0253865	0.014178652	0.021225845	1.03464E-06	0.0889272	0.0242696	1.7477883	0.0278253	0
Annual	SO2_IDLEX	0	0	0	0	7.418E-05	0.000116372	0.000457243	0.007957703	0.0006808	0	0	0.0026276	0
Annual	SO2_RUNEX	0.0018645	0.0022238	0.0022094	0.0026844	0.0051316	0.005077975	0.007387088	0.009433231	0.0107308	0.0024147	0.0021152	0.0082968	0.0077892
Annual	SO2_STREX	0.0003646	0.0004451	0.0004432	0.0005317	8.417E-05	5.66282E-05	4.27559E-05	2.65039E-07	0.000155	9.618E-05	0.0005656	3.801E-05	0
Annual	TOG_DIURN	0.0210314	0.0373923	0.0435891	0.0686636	0.0012626	0.000745369	0.000212855	1.09207E-06	0.0018922	0.001939	1.4286701	0.0011603	0
Annual	TOG_HTSK	0.0399373	0.0594409	0.0543006	0.0804766	0.0336291	0.018766617	0.007226437	3.63012E-05	0.0203932	0.0109253	0.7330723	0.0076464	0
Annual	TOG_IDLEX	0	0	0	0	0.0198103	0.015922676	0.015639922	0.5060234	0.0662822	0	0	0.3969064	0
Annual	TOG_RESTL	0.0193135	0.035573	0.041351	0.0655914	0.0008245	0.000495458	0.000140436	7.20404E-07	0.0009552	0.0008794	0.7443163	0.0005945	0
Annual	TOG_RUNEX	0.0029532	0.0040098	0.0050433	0.0057024	0.0287504	0.040287266	0.008814165	0.105596771	0.0156919	4.5723385	2.8432595	0.0171895	0.0630549
Annual	TOG_RUNLS	0.1470992	0.2213831	0.2044975	0.2325902	0.1635365	0.094087921	0.034760323	0.000175206	0.2331662	0.0406774	1.2175821	0.0491518	0
Annual	TOG_STREX	0.0741878	0.08938	0.1092817	0.1241873	0.027795	0.015523839	0.023239629	1.1328E-06	0.0973641	0.0265722	1.9040655	0.0304652	0
Summer	CH4_IDLEX	0	0	0	0	0.0034233	0.00220601	0.002105988	0.029094386	0.0085094	0	0	0.0592682	0
Summer	CH4_RUNEX	0.0007951	0.001003	0.0012112	0.0013183	0.0016577	0.001920954	0.000521671	0.082466334	0.0018323	4.4787849	0.3347296	0.0012656	0.0025726
Summer	CH4_STREX	0.0161248	0.0185958	0.0222716	0.0241358	0.0055808	0.003161627	0.004311961	1.8975E-07	0.0171909	0.0065771	0.2037329	0.0041272	0
Summer	CO_IDLEX	0	0	0	0	0.1696665	0.129253365	0.257164069	6.507562012	0.5804474	0	0	2.8361106	0
Summer	CO_RUNEX	0.4929739	0.5345731	0.6019887	0.6082785	0.1731994	0.201918171	0.083961971	0.500170425	0.1941798	34.941143	17.226939	0.1573148	0.186181
Summer	CO_STREX	1.1452825	1.2441287	1.5376169	1.5667738	0.6924207	0.403206456	0.386299748	0.003327495	1.6251974	0.7702662	7.9751318	0.4560081	0
Summer	CO2_NBIO_IDLEX	0	0	0	0	7.6759097	12.1940482	47.73181924	851.2069016	70.702455	0	0	272.77263	0
Summer	CO2_NBIO_RUNEX	227.70089	268.68876	265.16778	318.14034	527.33851	527.0159054	777.2785366	1052.276777	1108.1145	1641.1988	213.76732	868.82917	823.9452
Summer	CO2_NBIO_STREX	40.764666	49.816083	49.47886	59.447476	8.4447887	5.687466568	4.281276929	0.026470461	15.457119	9.5009445	55.100473	3.5507119	0
Summer	NOX_IDLEX	0	0	0	0	0.0387528	0.05904946	0.246890941	5.080564665	0.3123825	0	0	1.229036	0
Summer	NOX_RUNEX	0.0151283	0.0181137	0.018009	0.0205428	0.111581	0.196672817	1.018033714	2.179758551	0.8630427	0.3497867	0.9641212	1.3314683	2.3313796
Summer	NOX_STREX[3]	0.1001241	0.1162605	0.1123384	0.1260174	0.1524079	0.09194082	1.890896867	2.430599318	0.8076655	0.0913106	0.2480646	1.9398425	0
Summer	PM10_IDLEX	0	0	0	0	0.0010131	0.00149738	6.23905E-05	0.001792246	9.806E-05	0	0	0.0002985	0
Summer	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.06052191	0.13034	0.0728339	0.01176	0.7448002	0.13034
Summer	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100175	0.010875472	0.012000003	0.035283881	0.012	0.026486	0.004	0.0109168	0.016
Summer	PM10_RUNEX	0.0006069	0.0006977	0.0006892	0.0006865	0.0039073	0.009754285	0.006830216	0.016907652	0.0067783	0.0027211	0.0024297	0.0040328	0.0394815
Summer	PM10_STREX	0.0007664	0.0008982	0.000809	0.0008373	0.0001763	9.78334E-05	6.13665E-05	3.28077E-07	0.0002136	0.0001779	0.0029183	6.561E-05	0
Summer	PM25_IDLEX	0	0	0	0	0.0009692	0.001432604	5.96915E-05	0.001714714	9.382E-05	0	0	0.0002856	0
Summer	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025937961	0.05586	0.0312145	0.00504	0.3192001	0.05586
Summer	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025044	0.002718868	0.003000001	0.00882097	0.003	0.0066215	0.001	0.0027292	0.004
Summer	PM25_RUNEX	0.0005584	0.0006416	0.0006353	0.0006325	0.0037154	0.009319663	0.006531451	0.016176217	0.0064658	0.0025884	0.0022652	0.0038431	0.0377735
Summer	PM25_STREX	0.0007047	0.0008259	0.0007439	0.0007699	0.0001621	8.99542E-05	5.64242E-05	3.01655E-07	0.0001964	0.0001636	0.002723	6.032E-05	0
Summer	ROG_DIURN	0.0386927	0.0683002	0.0797713	0.1255634	0.002257	0.001329692	0.000380778	1.95396E-06	0.0033605	0.0035259	2.7815421	0.002059	0
Summer	ROG_HTSK	0.042751	0.0635584	0.0597531	0.0889682	0.036573	0.020224799	0.007858086	3.95599E-05	0.0215543	0.0125583	1.0588893	0.0078887	0
Summer	ROG_IDLEX	0	0	0	0	0.0144655	0.012228381	0.011515476	0.464255741	0.051928	0	0	0.2779213	0
Summer	ROG_RESTL	0.0348655	0.06266	0.0733821	0.116185	0.0015047	0.000898219	0.000257101	1.31944E-06	0.0017636	0.0017204	1.6921051	0.0010918	0
Summer	ROG_RUNEX	0.0022616	0.0030511	0.0038614	0.004367	0.0247776	0.035114433	0.007553632	0.020745351	0.0122351	0.0653497	2.2396321	0.0142775	0.0553874
Summer	ROG_RUNLS	0.1416523	0.2136162	0.1972289	0.2245833	0.1638477	0.094138938	0.034617489	0.00017436	0.232419	0.0398162	1.1992078	0.044935	0
Summer	ROG_STREX	0.057953	0.0697583	0.0851998	0.0967918	0.0243389	0.013594634	0.020310268	9.90007E-07	0.0846392	0.0219833	1.5492524	0.023274	0
Summer	SO2_IDLEX	0	0	0	0	7.418E-05	0.000116372	0.000452439	0.007855815	0.0006731	0	0	0.0026008	0
Summer	SO2_RUNEX	0.0020187	0.0023808	0.0023508	0.0028243	0.0051316	0.005077988	0.007387094	0.009433236	0.0107308	0.0024147	0.0021154	0.0082968	0.0077892
Summer	SO2_STREX	0.0003612	0.0004414	0.0004384	0.0005268	8.357E-05	5.62821E-05	4.23667E-05	2.61947E-07	0.000153	9.402E-05	0.0005453	3.514E-05	0
Summer	TOG_DIURN	0.0393536	0.0694812	0.0811505	0.1277386	0.002257	0.001329692	0.000380778	1.95396E-06	0.0033605	0.0035259	2.7815421	0.002059	0
Summer	TOG_HTSK	0.0434899	0.0646613	0.0607893	0.0905124	0.036573	0.020224799	0.007858086	3.95599E-05	0.0215543	0.0125583	1.0588893	0.0078887	0
Summer	TOG_IDLEX	0	0	0	0	0.0198103	0.015922676	0.015314331	0.536091161	0.0678696	0	0	0.3983697	0
Summer	TOG_RESTL	0.0354658	0.0637465	0.0746544	0.1182017	0.0015047	0.000898219	0.000257101	1.31944E-06	0.0017636	0.0017204	1.6921051	0.0010918	0
Summer	TOG_RUNEX	0.0033086	0.0044914	0.005628	0.0063607	0.0288092	0.040321075	0.008838679	0.105600844	0.015893	4.5723827	2.8113586	0.0173193	0.0630549
Summer	TOG_RUNLS	0.144117	0.2173331	0.2006606	0.228491	0.1638477	0.094138938	0.034617489	0.00017436	0.232419	0.0398162	1.1992078	0.044935	0
Summer	TOG_STREX	0.0640223	0.0770639	0.0941226	0.1069286	0.026648	0.014884413	0.022237187	1.08393E-06	0.0926692	0.024069	1.6877993	0.0254821	0

Winter	CH4_IDLEX	0	0	0	0	0.0034157	0.002201463	0.002347598	0.018670878	0.0083293	0	0	0.0590194	0
Winter	CH4_RUNEX	0.0006857	0.0008674	0.0010478	0.0011407	0.0016448	0.001913586	0.000515711	0.00087438	0.0017943	4.4787727	0.3352043	0.0012429	0.0025726
Winter	CH4_STREX	0.0185824	0.0214396	0.0257158	0.0278796	0.0057801	0.003275209	0.004445664	1.97768E-07	0.0179975	0.007307	0.2261179	0.005076	0
Winter	CO_IDLEX	0	0	0	0	0.1696665	0.129253365	0.331664271	6.580569459	0.5920519	0	0	2.867341	0
Winter	CO_RUNEX	0.3915561	0.4266645	0.4806225	0.4866702	0.1719604	0.201218744	0.083644353	0.222320593	0.1914111	34.940265	16.754278	0.1556531	0.186181
Winter	CO_STREX	1.3440778	1.4623462	1.8205698	1.8572409	0.7250223	0.422172049	0.405968336	0.003496916	1.7500167	0.9162527	8.7303951	0.657998	0
Winter	CO2_NBIO_IDLEX	0	0	0	0	7.6759097	12.1940482	48.95431987	857.200398	72.629754	0	0	279.52551	0
Winter	CO2_NBIO_RUNEX	207.04866	247.66282	246.22127	299.39578	527.33639	527.0147062	777.2779637	998.4620679	1108.1096	1641.1973	213.05595	868.82613	823.9452
Winter	CO2_NBIO_STREX	41.142874	50.235351	50.019756	60.008788	8.4995947	5.719284864	4.315130148	0.026739137	15.669341	9.7406921	56.89027	3.8890187	0
Winter	NOX_IDLEX	0	0	0	0	0.0387528	0.05904946	0.276861436	5.576754473	0.351309	0	0	1.3679814	0
Winter	NOX_RUNEX	0.015926	0.0191208	0.0190042	0.0216848	0.1156109	0.204460495	1.062466053	2.256037241	0.9037378	0.3508947	1.0810881	1.3955782	2.4323188
Winter	NOX_STREX[3]	0.1066166	0.1237992	0.1196043	0.1341803	0.1565793	0.094445836	1.892399231	2.430604836	0.8143265	0.0953583	0.2608756	1.943514	0
Winter	PM10_IDLEX	0	0	0	0	0.0010131	0.00149738	8.19802E-05	0.002238359	0.0001273	0	0	0.0003921	0
Winter	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.059329741	0.13034	0.0728339	0.01176	0.7448002	0.13034
Winter	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100175	0.010875472	0.012000003	0.03458874	0.012	0.026486	0.004	0.0109168	0.016
Winter	PM10_RUNEX	0.0006069	0.0006977	0.0006892	0.0006865	0.0039073	0.009754285	0.006830216	0.016836094	0.0067783	0.0027211	0.0024297	0.0040328	0.0394815
Winter	PM10_STREX	0.0007664	0.0008982	0.000809	0.0008373	0.0001763	9.78334E-05	6.13665E-05	3.28077E-07	0.0002136	0.0001779	0.0029183	6.561E-05	0
Winter	PM25_IDLEX	0	0	0	0	0.0009692	0.001432604	7.84338E-05	0.002141529	0.0001218	0	0	0.0003752	0
Winter	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025427032	0.05586	0.0312145	0.00504	0.3192001	0.05586
Winter	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025044	0.002718868	0.003000001	0.008647185	0.003	0.0066215	0.001	0.0027292	0.004
Winter	PM25_RUNEX	0.0005584	0.0006416	0.0006353	0.0006325	0.0037154	0.009319663	0.006531451	0.016107756	0.0064658	0.0025884	0.0022652	0.0038431	0.0377735
Winter	PM25_STREX	0.0007047	0.0008259	0.0007439	0.0007699	0.0001621	8.99542E-05	5.64242E-05	3.01655E-07	0.0001964	0.0001636	0.002723	6.032E-05	0
Winter	ROG_DIURN	0.0189421	0.032968	0.0387005	0.0608239	0.0011412	0.000666698	0.000192745	9.89615E-07	0.0017383	0.001897	1.5652475	0.0010591	0
Winter	ROG_HTSK	0.0415048	0.0617422	0.0574853	0.085456	0.0355959	0.019730713	0.007628219	3.83738E-05	0.0211587	0.0119979	0.953071	0.0077878	0
Winter	ROG_IDLEX	0	0	0	0	0.0144655	0.012228381	0.01191047	0.401978878	0.048608	0	0	0.2748609	0
Winter	ROG_RESTL	0.0181426	0.0334708	0.0389238	0.0617691	0.0008158	0.000490261	0.000139262	7.14492E-07	0.0009578	0.0008837	0.6988257	0.0005963	0
Winter	ROG_RUNEX	0.0019787	0.0026679	0.0033961	0.0038432	0.0247411	0.035093423	0.007537513	0.018359961	0.0121029	0.065321	2.2499154	0.0141839	0.0553874
Winter	ROG_RUNLS	0.1673949	0.2519923	0.2332297	0.2641201	0.1774117	0.102097678	0.037951554	0.000191456	0.24866	0.0454313	1.4324448	0.0595651	0
Winter	ROG_STREX	0.0675343	0.0813717	0.0995247	0.1131117	0.0252713	0.014117901	0.021107812	1.02888E-06	0.0889216	0.0244703	1.727226	0.0286775	0
Winter	SO2_IDLEX	0	0	0	0	7.418E-05	0.000116372	0.000463854	0.008098404	0.0006914	0	0	0.0026646	0
Winter	SO2_RUNEX	0.0018357	0.0021945	0.0021829	0.0026582	0.0051316	0.005077976	0.007387088	0.009433232	0.0107308	0.0024147	0.0021084	0.0082968	0.0077892
Winter	SO2_STREX	0.0003646	0.0004451	0.0004432	0.0005317	8.411E-05	5.6597E-05	4.27017E-05	2.64605E-07	0.0001551	9.639E-05	0.000563	3.848E-05	0
Winter	TOG_DIURN	0.0192671	0.0335389	0.0393707	0.0618787	0.0011412	0.000666698	0.000192745	9.89615E-07	0.0017383	0.001897	1.5652475	0.0010591	0
Winter	TOG_HTSK	0.042222	0.0628135	0.058482	0.0869391	0.0355959	0.019730713	0.007628219	3.83738E-05	0.0211587	0.0119979	0.953071	0.0077878	0
Winter	TOG_IDLEX	0	0	0	0	0.0198103	0.015922676	0.016101742	0.457622354	0.0640901	0	0	0.3948857	0
Winter	TOG_RESTL	0.0184572	0.0340525	0.0396002	0.062843	0.0008158	0.000490261	0.000139262	7.14492E-07	0.0009578	0.0008837	0.6988257	0.0005963	0
Winter	TOG_RUNEX	0.0028922	0.0039273	0.004943	0.0055895	0.0287559	0.040290418	0.008815157	0.020940344	0.0157	4.5723409	2.8240938	0.0171826	0.0630549
Winter	TOG_RUNLS	0.1703075	0.256377	0.2372879	0.2687158	0.1774117	0.102097678	0.037951554	0.000191456	0.24866	0.0454313	1.4324448	0.0595651	0
Winter	TOG_STREX	0.0746071	0.0898936	0.1099478	0.1249577	0.0276689	0.015457324	0.023110397	1.1265E-06	0.097358	0.0267919	1.881672	0.0313983	0

1 Source: California Air Resources Board. EMFAC2017 Web Database. https://www.arb.ca.gov/emfac/2017/; California Air Pollution Control Officers Association (CAPCOA). 2017, November. California Emissions Estimator Model User's Guide, Version 2016.3.2, Appendix A.

2 Unless otherwise noted, per CalEEMod methodology, the calculated CalEEMod emission rates are derived from the emission rates obtained using the EMFAC2017 Web Database for the San Bernardino (SC) region .

3 Because EMFAC2017 provides vehicle trips data for MHDT and HHDT diesel trucks, the formula provided in Appendix A of the CalEEMod User's Guide in calculating the NO_x STREX emission rates are utilized.

APPENDIX 3.2:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (Construction - Unmitigated)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Unrefrigerated Warehouse-No Rail	7,662.72	1000sqft	175.91	7,662,716.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Unrefrigerated Warehouse - No Rail represents the sum of the proposed Warehousing and High-Cube Transload & Short-Term Warehouse uses.

Construction Phase - Construction Schedule adjusted to meet the 2040 Operational Year.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Off-road Equipment - Quantity of Equipment adjusted to reflect the changes made in the Construction Schedule.

Trips and VMT - CalEEMod only assumes Vendor Trips during Building Construction. The CalEEMod default trips were ratioed between each phase based on the number of days.

Demolition - Quantity of debis based on total existing use.

Grading - Analysis assumes that up to 20 acres will be disturbed per day.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
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tblConstructionPhase	NumDays	420.00	140.00
tblConstructionPhase	NumDays	1,085.00	420.00
tblConstructionPhase	NumDays	10,850.00	4,290.00
tblConstructionPhase	NumDays	770.00	2,340.00

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

tblConstructionPhase	NumDays	770.00	585.00
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tblEnergyUse	LightingElect	5.61	0.00
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tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
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tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00
tblLandUse	LandUseSquareFeet	7,662,720.00	7,662,716.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

tblLandUse	LotAcreage	5.00	1.72
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	6.5200e-004	6.0686e-004
tblVehicleEF	LDA	1.0130e-003	7.6644e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	6.0000e-004	5.5836e-004
tblVehicleEF	LDA	9.3200e-004	7.0471e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9787e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8357e-003
tblVehicleEF	LDA	3.6200e-004	3.6456e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8922e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8559e-004
tblVehicleEF	LDT1	1.4900e-003	0.02

tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2238e-003
tblVehicleEF	LDT1	4.7600e-004	4.4514e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0098e-003
tblVehicleEF	LDT1	0.04	0.22

tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0511e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3808e-003
tblVehicleEF	LDT1	4.7400e-004	4.4141e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4914e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6736e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	8.4000e-004	6.9772e-004
tblVehicleEF	LDT1	1.3200e-003	8.9819e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	7.7300e-004	6.4155e-004
tblVehicleEF	LDT1	1.2140e-003	8.2586e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6679e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1945e-003

tblVehicleEF	LDT1	4.7500e-004	4.4513e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9273e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0698e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4642e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
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tblVehicleEF	LDT2	5.3500e-004	4.4318e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0433e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2112e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
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tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8614e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3508e-003
tblVehicleEF	LDT2	5.3400e-004	4.3843e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0478e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	7.8200e-004	6.8916e-004
tblVehicleEF	LDT2	1.1890e-003	8.0902e-004
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003

tblVehicleEF	LDT2	7.1900e-004	6.3529e-004
tblVehicleEF	LDT2	1.0930e-003	7.4386e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3961e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1829e-003
tblVehicleEF	LDT2	5.3500e-004	4.4322e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
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tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4148e-003
tblVehicleEF	LHD1	1.8710e-003	1.6435e-003
tblVehicleEF	LHD1	5.1310e-003	5.8039e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
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tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12

tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
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tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
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tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
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tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
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tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4200e-004	8.4166e-005
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tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2446e-004
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tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4233e-003
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tblVehicleEF	LHD1	4.8800e-003	5.5808e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
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tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003

tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5047e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
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tblVehicleEF	LHD1	1.8730e-003	1.6448e-003
tblVehicleEF	LHD1	5.0830e-003	5.7801e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0131e-003
tblVehicleEF	LHD1	0.08	0.08

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9073e-003
tblVehicleEF	LHD1	4.6800e-004	1.7628e-004
tblVehicleEF	LHD1	6.6400e-004	9.6924e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6510e-003	2.5044e-003
tblVehicleEF	LHD1	4.9620e-003	3.7154e-003
tblVehicleEF	LHD1	4.3000e-004	1.6208e-004
tblVehicleEF	LHD1	1.2380e-003	1.1412e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4176e-005
tblVehicleEF	LHD1	5.2510e-003	5.1316e-003
tblVehicleEF	LHD1	2.4200e-004	8.4110e-005
tblVehicleEF	LHD1	1.2380e-003	1.1412e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1575e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9128e-003

tblVehicleEF	LHD2	2.0670e-003	3.2881e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01

tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6628e-005
tblVehicleEF	LHD2	6.0700e-004	7.4537e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9546e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1616e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005

tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	1.1630e-003	1.3297e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6282e-005
tblVehicleEF	LHD2	1.1630e-003	1.3297e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9822e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2015e-003
tblVehicleEF	LHD2	1.4870e-003	1.9136e-003
tblVehicleEF	LHD2	2.0640e-003	3.2752e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20

tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4974e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7543e-003
tblVehicleEF	LHD2	3.8100e-004	9.7833e-005
tblVehicleEF	LHD2	8.3200e-004	1.4326e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7110e-003	2.7189e-003
tblVehicleEF	LHD2	4.6760e-003	9.3197e-003
tblVehicleEF	LHD2	3.5000e-004	8.9954e-005
tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1637e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6597e-005

tblVehicleEF	LHD2	5.7300e-004	6.6670e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9026e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27

tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1152e-003
tblVehicleEF	MCY	6.4400e-004	5.6565e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78

tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1154e-003
tblVehicleEF	MCY	6.1700e-004	5.4526e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.2150e-003	2.4297e-003
tblVehicleEF	MCY	3.3090e-003	2.9183e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003

tblVehicleEF	MCY	2.0660e-003	2.2652e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1084e-003
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tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1646e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004

tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9199e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6844e-003
tblVehicleEF	MDV	7.1700e-004	5.3168e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7024e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3183e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13

tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8243e-003
tblVehicleEF	MDV	7.1400e-004	5.2676e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3607e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1407e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40

tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	8.6800e-004	6.8647e-004
tblVehicleEF	MDV	1.3230e-003	8.3734e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	7.9900e-004	6.3252e-004
tblVehicleEF	MDV	1.2170e-003	7.6990e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8432e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6582e-003
tblVehicleEF	MDV	7.1600e-004	5.3173e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5895e-003
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tblVehicleEF	MH	0.56	2.47
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tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
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tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7892e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5726e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7892e-003

tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1603e-004
tblVehicleEF	MHD	0.03	4.4821e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.0618e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	3.2000e-005	6.7563e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003

tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	6.6000e-004	2.1286e-004
tblVehicleEF	MHD	0.02	7.2264e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4044e-004
tblVehicleEF	MHD	0.03	7.5368e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5724e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1400e-004	4.2756e-005
tblVehicleEF	MHD	6.6000e-004	2.1286e-004
tblVehicleEF	MHD	0.02	7.2264e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4044e-004
tblVehicleEF	MHD	0.03	8.8142e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2167e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28

tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2390e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	2.7000e-005	5.9691e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	1.2630e-003	3.8078e-004
tblVehicleEF	MHD	0.02	7.8581e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5710e-004
tblVehicleEF	MHD	0.03	7.5536e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5244e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1100e-004	4.2367e-005
tblVehicleEF	MHD	1.2630e-003	3.8078e-004
tblVehicleEF	MHD	0.02	7.8581e-003
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	8.6500e-004	2.5710e-004
tblVehicleEF	MHD	0.03	8.8387e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3476e-003
tblVehicleEF	MHD	1.5960e-003	5.1571e-004
tblVehicleEF	MHD	0.03	4.4457e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.1980e-005
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	2.6380e-003	6.8302e-003
tblVehicleEF	MHD	6.7400e-004	6.1367e-005
tblVehicleEF	MHD	3.9000e-005	7.8434e-005
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.5200e-003	6.5315e-003
tblVehicleEF	MHD	6.2000e-004	5.6424e-005
tblVehicleEF	MHD	6.1700e-004	1.9275e-004

tblVehicleEF	MHD	0.02	7.6282e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3926e-004
tblVehicleEF	MHD	0.03	7.5375e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6385e-004
tblVehicleEF	MHD	0.01	7.3871e-003
tblVehicleEF	MHD	5.1400e-004	4.2702e-005
tblVehicleEF	MHD	6.1700e-004	1.9275e-004
tblVehicleEF	MHD	0.02	7.6282e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3926e-004
tblVehicleEF	MHD	0.03	8.8152e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4188e-003
tblVehicleEF	OBUS	3.1180e-003	1.7929e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92

tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1036e-004
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	1.0000e-005	1.0558e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	1.7340e-003	1.8922e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5525e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8080e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8922e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5525e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23

tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5094e-003
tblVehicleEF	OBUS	3.1850e-003	1.8323e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8061e-005
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	9.0000e-006	9.3819e-005
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	3.3210e-003	3.3605e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7636e-003

tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7315e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5296e-004
tblVehicleEF	OBUS	3.3210e-003	3.3605e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7636e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3293e-003
tblVehicleEF	OBUS	3.1250e-003	1.7943e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
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tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2734e-004
tblVehicleEF	OBUS	0.13	0.13

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.9770e-003	6.7783e-003
tblVehicleEF	OBUS	1.0780e-003	2.1364e-004
tblVehicleEF	OBUS	1.3000e-005	1.2183e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	1.8650e-003	6.4658e-003
tblVehicleEF	OBUS	9.9100e-004	1.9644e-004
tblVehicleEF	OBUS	1.6680e-003	1.7383e-003
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tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9136e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.6680e-003	1.7383e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5778e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2442e-003

tblVehicleEF	SBUS	0.05	4.9266e-003
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tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
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tblVehicleEF	SBUS	0.94	1.42
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tblVehicleEF	SBUS	1.8400e-004	3.3785e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	1.7600e-004	3.2323e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	4.3930e-003	1.1603e-003
tblVehicleEF	SBUS	0.03	7.6464e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9448e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03

tblVehicleEF	SBUS	0.01	2.6276e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.7300e-004	3.8011e-005
tblVehicleEF	SBUS	4.3930e-003	1.1603e-003
tblVehicleEF	SBUS	0.03	7.6464e-003
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tblVehicleEF	SBUS	2.1030e-003	5.9448e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2656e-003
tblVehicleEF	SBUS	0.04	4.1272e-003
tblVehicleEF	SBUS	7.08	2.84
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tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9853e-004
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005

tblVehicleEF	SBUS	1.4800e-004	2.8562e-004
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tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6008e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.4600e-004	3.5137e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8887e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0918e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2429e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16

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tblVehicleEF	SBUS	997.24	279.53
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tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9215e-004
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0328e-003
tblVehicleEF	SBUS	1.0470e-003	6.5606e-005
tblVehicleEF	SBUS	2.1400e-004	3.7518e-004
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.6570e-003	2.7292e-003
tblVehicleEF	SBUS	2.5800e-003	3.8431e-003
tblVehicleEF	SBUS	9.6300e-004	6.0322e-005
tblVehicleEF	SBUS	4.1430e-003	1.0591e-003
tblVehicleEF	SBUS	0.03	7.7878e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6646e-003
tblVehicleEF	SBUS	9.9290e-003	8.2968e-003
tblVehicleEF	SBUS	5.7400e-004	3.8485e-005

tblVehicleEF	SBUS	4.1430e-003	1.0591e-003
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tblVehicleEF	SBUS	2.0550e-003	5.9634e-004
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tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
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tblVehicleEF	UBUS	0.06	7.2480e-003
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tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7938e-004
tblVehicleEF	UBUS	0.07	0.07

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tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
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tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6215e-003
tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
tblVehicleEF	UBUS	1.5460e-003	1.6355e-004
tblVehicleEF	UBUS	8.8620e-003	3.5259e-003

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tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4147e-003
tblVehicleEF	UBUS	1.5790e-003	9.4020e-005
tblVehicleEF	UBUS	8.8620e-003	3.5259e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7204e-003
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tblVehicleEF	UBUS	0.01	0.04
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tblVehicleEF	UBUS	0.06	7.3070e-003
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tblVehicleEF	UBUS	7.73	0.92
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tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7211e-003
tblVehicleEF	UBUS	1.6820e-003	1.7788e-004
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tblVehicleEF	UBUS	4.9980e-003	2.5884e-003
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tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
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tblVehicleEF	UBUS	0.02	0.05
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tblVehicleEF	UBUS	2.8890e-003	8.8375e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
tblVehicleTrips	PR_TP	82.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	3,805,015.50	0.00
tblWater	IndoorWaterUseRate	15,220,421.71	0.00
tblWater	IndoorWaterUseRate	640,264,190.29	0.00
tblWater	IndoorWaterUseRate	1,772,004,000.00	0.00
tblWater	OutdoorWaterUseRate	422,779.50	0.00
tblWater	OutdoorWaterUseRate	9,328,645.57	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.5917	47.4685	10.1025	0.1455	42.6545	0.3480	43.0025	6.9959	0.3266	7.3225	0.0000	13,968.6208	13,968.6208	0.8992	0.0000	13,991.1008
2022	1.6328	37.4448	9.7822	0.1103	38.7855	0.4798	39.2653	6.9833	0.4452	7.4284	0.0000	10,524.8881	10,524.8881	0.8490	0.0000	10,546.1123
2023	1.1336	14.5399	8.2759	0.0324	6.4039	0.4382	6.8421	1.4511	0.4033	1.8544	0.0000	2,947.8951	2,947.8951	0.5982	0.0000	2,962.8509
2024	4.0037	28.9459	29.7976	0.1472	14.8439	0.3990	15.2429	3.5286	0.3693	3.8979	0.0000	13,631.1535	13,631.1535	0.8832	0.0000	13,653.2333
2025	7.2056	46.3051	52.9732	0.2838	20.9134	0.3413	21.2547	5.6315	0.3181	5.9496	0.0000	26,354.6603	26,354.6603	1.1984	0.0000	26,384.6198
2026	6.8874	45.7221	49.7984	0.2779	20.9134	0.3374	21.2508	5.6314	0.3145	5.9460	0.0000	25,827.4129	25,827.4129	1.1683	0.0000	25,856.6211
2027	6.5814	45.1888	46.9903	0.2728	20.9134	0.3314	21.2448	5.6314	0.3090	5.9405	0.0000	25,364.8889	25,364.8889	1.1402	0.0000	25,393.3944
2028	6.2452	44.5669	44.3805	0.2673	20.8332	0.3229	21.1561	5.6099	0.3011	5.9110	0.0000	24,864.8798	24,864.8798	1.1099	0.0000	24,892.6270
2029	5.9312	44.3139	42.1992	0.2644	20.9134	0.3173	21.2307	5.6314	0.2960	5.9274	0.0000	24,606.3597	24,606.3597	1.0893	0.0000	24,633.5929
2030	5.5888	41.4873	39.9212	0.2627	20.9133	0.1787	21.0920	5.6314	0.1710	5.8024	0.0000	24,432.3581	24,432.3581	0.8794	0.0000	24,454.3438
2031	5.2407	41.3037	38.1120	0.2602	20.9133	0.1735	21.0869	5.6314	0.1663	5.7977	0.0000	24,212.4229	24,212.4229	0.8591	0.0000	24,233.8998
2032	8.3147	41.8139	42.1108	0.2819	24.4120	0.1889	24.6009	6.5609	0.1810	6.7419	0.0000	26,175.2247	26,175.2247	0.8749	0.0000	26,197.0967
2033	8.0324	41.2050	40.1654	0.2779	24.3325	0.1825	24.5150	6.5392	0.1750	6.7142	0.0000	25,812.1395	25,812.1395	0.8506	0.0000	25,833.4043
2034	7.7631	40.9429	38.4773	0.2757	24.3325	0.1773	24.5098	6.5392	0.1702	6.7094	0.0000	25,616.8141	25,616.8141	0.8335	0.0000	25,637.6521
2035	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6215	25,549.6215	0.8176	0.0000	25,570.0622
2036	7.5372	40.4200	37.3271	0.2760	24.5197	0.1447	24.6644	6.5895	0.1380	6.7275	0.0000	25,647.5127	25,647.5127	0.8208	0.0000	25,668.0318
2037	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6215	25,549.6215	0.8176	0.0000	25,570.0622
2038	7.6500	40.5788	38.2102	0.2768	24.4366	0.1562	24.5928	6.5672	0.1495	6.7166	0.0000	25,709.7641	25,709.7641	0.8236	0.0000	25,730.3549

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2039	8.0550	41.3832	41.2084	0.2814	24.3753	0.1925	24.5677	6.5506	0.1857	6.7363	0.0000	26,102.3098	26,102.3098	0.8389	0.0000	26,123.2818
2040	7.2097	40.3474	37.0402	0.2770	24.4691	0.1472	24.6163	6.5758	0.1417	6.7175	0.0000	25,704.3197	25,704.3197	0.7950	0.0000	25,724.1950
Maximum	**8.3147**	**47.4685**	**52.9732**	**0.2838**	**42.6545**	**0.4798**	**43.0025**	**6.9959**	**0.4452**	**7.4284**	**0.0000**	**26,354.6603**	**26,354.6603**	**1.1984**	**0.0000**	**26,384.6198**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.5917	47.4685	10.1025	0.1455	19.5147	0.3480	19.8627	3.4924	0.3266	3.8189	0.0000	13,968.6202	13,968.6202	0.8992	0.0000	13,991.1003
2022	1.6328	37.4448	9.7822	0.1103	17.8983	0.4798	18.3781	3.4455	0.4452	3.8907	0.0000	10,524.8869	10,524.8869	0.8490	0.0000	10,546.1110
2023	1.1336	14.5399	8.2759	0.0324	2.7318	0.4382	3.1700	0.6327	0.4033	1.0361	0.0000	2,947.8932	2,947.8932	0.5982	0.0000	2,962.8490
2024	4.0037	28.9459	29.7976	0.1472	11.5905	0.3990	11.9896	2.9404	0.3693	3.3097	0.0000	13,631.1519	13,631.1519	0.8832	0.0000	13,653.2317
2025	7.2056	46.3051	52.9732	0.2838	20.9134	0.3413	21.2547	5.6315	0.3181	5.9496	0.0000	26,354.6593	26,354.6593	1.1984	0.0000	26,384.6187
2026	6.8874	45.7221	49.7984	0.2779	20.9134	0.3374	21.2508	5.6314	0.3145	5.9460	0.0000	25,827.4119	25,827.4119	1.1683	0.0000	25,856.6201
2027	6.5814	45.1888	46.9903	0.2728	20.9134	0.3314	21.2448	5.6314	0.3090	5.9405	0.0000	25,364.8879	25,364.8879	1.1402	0.0000	25,393.3934
2028	6.2452	44.5669	44.3805	0.2673	20.8332	0.3229	21.1561	5.6099	0.3011	5.9110	0.0000	24,864.8788	24,864.8788	1.1099	0.0000	24,892.6260
2029	5.9312	44.3139	42.1992	0.2644	20.9134	0.3173	21.2307	5.6314	0.2960	5.9274	0.0000	24,606.3586	24,606.3586	1.0893	0.0000	24,633.5919

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	5.5888	41.4873	39.9212	0.2627	20.9133	0.1787	21.0920	5.6314	0.1710	5.8024	0.0000	24,432.3569	24,432.3569	0.8794	0.0000	24,454.3426
2031	5.2407	41.3037	38.1120	0.2602	20.9133	0.1735	21.0869	5.6314	0.1663	5.7977	0.0000	24,212.4217	24,212.4217	0.8591	0.0000	24,233.8986
2032	8.3147	41.8139	42.1108	0.2819	24.4120	0.1889	24.6009	6.5609	0.1810	6.7419	0.0000	26,175.2234	26,175.2234	0.8749	0.0000	26,197.0954
2033	8.0324	41.2050	40.1654	0.2779	24.3325	0.1825	24.5150	6.5392	0.1750	6.7142	0.0000	25,812.1382	25,812.1382	0.8506	0.0000	25,833.4030
2034	7.7631	40.9429	38.4773	0.2757	24.3325	0.1773	24.5098	6.5392	0.1702	6.7094	0.0000	25,616.8129	25,616.8129	0.8335	0.0000	25,637.6509
2035	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6202	25,549.6202	0.8176	0.0000	25,570.0609
2036	7.5372	40.4200	37.3271	0.2760	24.5197	0.1447	24.6644	6.5895	0.1380	6.7275	0.0000	25,647.5114	25,647.5114	0.8208	0.0000	25,668.0305
2037	7.5084	40.2658	37.1847	0.2749	24.4261	0.1442	24.5702	6.5644	0.1374	6.7018	0.0000	25,549.6202	25,549.6202	0.8176	0.0000	25,570.0609
2038	7.6500	40.5788	38.2102	0.2768	24.4366	0.1562	24.5928	6.5672	0.1495	6.7166	0.0000	25,709.7626	25,709.7626	0.8236	0.0000	25,730.3534
2039	8.0550	41.3832	41.2084	0.2814	24.3753	0.1925	24.5677	6.5506	0.1857	6.7363	0.0000	26,102.3078	26,102.3078	0.8389	0.0000	26,123.2797
2040	7.2097	40.3474	37.0402	0.2770	24.4691	0.1472	24.6163	6.5758	0.1417	6.7175	0.0000	25,704.3177	25,704.3177	0.7950	0.0000	25,724.1930
Maximum	**8.3147**	**47.4685**	**52.9732**	**0.2838**	**24.5197**	**0.4798**	**24.6644**	**6.5895**	**0.4452**	**6.7419**	**0.0000**	**26,354.6593**	**26,354.6593**	**1.1984**	**0.0000**	**26,384.6187**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**10.87**	**0.00**	**10.75**	**7.20**	**0.00**	**6.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2021	8-31-2021	20.5115	20.5115
2	9-1-2021	11-30-2021	20.3399	20.3399
3	12-1-2021	2-28-2022	18.9131	18.9131

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4	**3-1-2022**	**5-31-2022**	18.4833	18.4833
5	**6-1-2022**	**8-31-2022**	3.4948	3.4948
6	**9-1-2022**	**11-30-2022**	3.4543	3.4543
7	**12-1-2022**	**2-28-2023**	3.9433	3.9433
8	**3-1-2023**	**5-31-2023**	3.9544	3.9544
9	**6-1-2023**	**8-31-2023**	3.9581	3.9581
10	**9-1-2023**	**11-30-2023**	3.9078	3.9078
11	**12-1-2023**	**2-29-2024**	3.7847	3.7847
12	**3-1-2024**	**5-31-2024**	3.7709	3.7709
13	**6-1-2024**	**8-31-2024**	8.1880	8.1880
14	**9-1-2024**	**11-30-2024**	13.7439	13.7439
15	**12-1-2024**	**2-28-2025**	13.2971	13.2971
16	**3-1-2025**	**5-31-2025**	13.4734	13.4734
17	**6-1-2025**	**8-31-2025**	13.4895	13.4895
18	**9-1-2025**	**11-30-2025**	13.3112	13.3112
19	**12-1-2025**	**2-28-2026**	13.0039	13.0039
20	**3-1-2026**	**5-31-2026**	13.2472	13.2472
21	**6-1-2026**	**8-31-2026**	13.2637	13.2637
22	**9-1-2026**	**11-30-2026**	13.0871	13.0871
23	**12-1-2026**	**2-28-2027**	12.7913	12.7913
24	**3-1-2027**	**5-31-2027**	13.0363	13.0363
25	**6-1-2027**	**8-31-2027**	13.0535	13.0535
26	**9-1-2027**	**11-30-2027**	12.8777	12.8777
27	**12-1-2027**	**2-29-2028**	12.7340	12.7340
28	**3-1-2028**	**5-31-2028**	12.8433	12.8433
29	**6-1-2028**	**8-31-2028**	12.8615	12.8615
30	**9-1-2028**	**11-30-2028**	12.6860	12.6860

31	**12-1-2028**	**2-28-2029**	12.4034	12.4034
32	**3-1-2029**	**5-31-2029**	12.6495	12.6495
33	**6-1-2029**	**8-31-2029**	12.6688	12.6688
34	**9-1-2029**	**11-30-2029**	12.4931	12.4931
35	**12-1-2029**	**2-28-2030**	11.8226	11.8226
36	**3-1-2030**	**5-31-2030**	11.8493	11.8493
37	**6-1-2030**	**8-31-2030**	11.8699	11.8699
38	**9-1-2030**	**11-30-2030**	11.7004	11.7004
39	**12-1-2030**	**2-28-2031**	11.4617	11.4617
40	**3-1-2031**	**5-31-2031**	11.7103	11.7103
41	**6-1-2031**	**8-31-2031**	11.7319	11.7319
42	**9-1-2031**	**11-30-2031**	11.5619	11.5619
43	**12-1-2031**	**2-29-2032**	11.9870	11.9870
44	**3-1-2032**	**5-31-2032**	12.6040	12.6040
45	**6-1-2032**	**8-31-2032**	12.6241	12.6241
46	**9-1-2032**	**11-30-2032**	12.4473	12.4473
47	**12-1-2032**	**2-28-2033**	12.1842	12.1842
48	**3-1-2033**	**5-31-2033**	12.4398	12.4398
49	**6-1-2033**	**8-31-2033**	12.4614	12.4614
50	**9-1-2033**	**11-30-2033**	12.2835	12.2835
51	**12-1-2033**	**2-28-2034**	12.0382	12.0382
52	**3-1-2034**	**5-31-2034**	12.3015	12.3015
53	**6-1-2034**	**8-31-2034**	12.3238	12.3238
54	**9-1-2034**	**11-30-2034**	12.1459	12.1459
55	**12-1-2034**	**2-28-2035**	11.8074	11.8074
56	**3-1-2035**	**5-31-2035**	12.0160	12.0160
57	**6-1-2035**	**8-31-2035**	12.0388	12.0388

58	**9-1-2035**	**11-30-2035**	11.8630	11.8630
59	**12-1-2035**	**2-29-2036**	11.8409	11.8409
60	**3-1-2036**	**5-31-2036**	12.0160	12.0160
61	**6-1-2036**	**8-31-2036**	12.0388	12.0388
62	**9-1-2036**	**11-30-2036**	11.8630	11.8630
63	**12-1-2036**	**2-28-2037**	11.7108	11.7108
64	**3-1-2037**	**5-31-2037**	12.0160	12.0160
65	**6-1-2037**	**8-31-2037**	12.0388	12.0388
66	**9-1-2037**	**11-30-2037**	11.8630	11.8630
67	**12-1-2037**	**2-28-2038**	11.7108	11.7108
68	**3-1-2038**	**5-31-2038**	12.0160	12.0160
69	**6-1-2038**	**8-31-2038**	12.0388	12.0388
70	**9-1-2038**	**11-30-2038**	12.1524	12.1524
71	**12-1-2038**	**2-28-2039**	12.1677	12.1677
72	**3-1-2039**	**5-31-2039**	12.4829	12.4829
73	**6-1-2039**	**8-31-2039**	12.5057	12.5057
74	**9-1-2039**	**11-30-2039**	12.3249	12.3249
75	**12-1-2039**	**2-29-2040**	11.9502	11.9502
76	**3-1-2040**	**5-31-2040**	11.9449	11.9449
77	**6-1-2040**	**8-31-2040**	11.9692	11.9692
78	**9-1-2040**	**9-30-2040**	3.9030	3.9030
		Highest	20.5115	20.5115

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/30/2022	5	260	
2	Site Preparation	Site Preparation	5/31/2022	12/12/2022	5	140	
3	Grading	Grading	12/13/2022	7/22/2024	5	420	
4	Building Construction	Building Construction	7/23/2024	12/31/2040	5	4290	
5	Architectural Coating	Architectural Coating	1/13/2032	12/31/2040	5	2340	
6	Paving	Paving	10/5/2038	12/31/2040	5	585	

Acres of Grading (Site Preparation Phase): 2800

Acres of Grading (Grading Phase): 8400

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 13,868,040; Non-Residential Outdoor: 4,622,680; Striped Parking Area: 1,220,436 (Architectural Coating – sqft)

OffRoad Equipment

Airport Gateway Specific Plan (Construction - Unmitigated) - San Bernardino-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	5	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Site Preparation	Crawler Tractors	7	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	5	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	4	8.00	212	0.43
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Crawler Tractors	5	8.00	212	0.43
Building Construction	Forklifts	5	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	247.00	591,868.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	12	30.00	133.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	399.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	12,275.00	4,071.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	2,455.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					37.9341	0.0000	37.9341	5.7436	0.0000	5.7436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4698	4.6761	3.0691	5.5800e-003		0.2309	0.2309		0.2145	0.2145	0.0000	488.6721	488.6721	0.1361	0.0000	492.0740
Total	**0.4698**	**4.6761**	**3.0691**	**5.5800e-003**	**37.9341**	**0.2309**	**38.1650**	**5.7436**	**0.2145**	**5.9581**	**0.0000**	**488.6721**	**488.6721**	**0.1361**	**0.0000**	**492.0740**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0616	40.9346	6.5802	0.1347	4.5769	0.1138	4.6906	1.2115	0.1088	1.3203	0.0000	12,977.3185	12,977.3185	0.7300	0.0000	12,995.5693
Vendor	0.0504	1.8503	0.3765	5.0500e-003	0.1199	3.1800e-003	0.1231	0.0346	3.0400e-003	0.0377	0.0000	483.0128	483.0128	0.0325	0.0000	483.8264
Worker	9.9200e-003	7.5000e-003	0.0768	2.2000e-004	0.0236	1.5000e-004	0.0238	6.2800e-003	1.4000e-004	6.4200e-003	0.0000	19.6175	19.6175	5.5000e-004	0.0000	19.6312
Total	**1.1219**	**42.7924**	**7.0335**	**0.1400**	**4.7204**	**0.1171**	**4.8375**	**1.2524**	**0.1120**	**1.3644**	**0.0000**	**13,479.9487**	**13,479.9487**	**0.7631**	**0.0000**	**13,499.0269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					14.7943	0.0000	14.7943	2.2400	0.0000	2.2400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4698	4.6761	3.0691	5.5800e-003		0.2309	0.2309		0.2145	0.2145	0.0000	488.6715	488.6715	0.1361	0.0000	492.0734
Total	**0.4698**	**4.6761**	**3.0691**	**5.5800e-003**	**14.7943**	**0.2309**	**15.0252**	**2.2400**	**0.2145**	**2.4545**	**0.0000**	**488.6715**	**488.6715**	**0.1361**	**0.0000**	**492.0734**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0616	40.9346	6.5802	0.1347	4.5769	0.1138	4.6906	1.2115	0.1088	1.3203	0.0000	12,977.3185	12,977.3185	0.7300	0.0000	12,995.5693
Vendor	0.0504	1.8503	0.3765	5.0500e-003	0.1199	3.1800e-003	0.1231	0.0346	3.0400e-003	0.0377	0.0000	483.0128	483.0128	0.0325	0.0000	483.8264
Worker	9.9200e-003	7.5000e-003	0.0768	2.2000e-004	0.0236	1.5000e-004	0.0238	6.2800e-003	1.4000e-004	6.4200e-003	0.0000	19.6175	19.6175	5.5000e-004	0.0000	19.6312
Total	**1.1219**	**42.7924**	**7.0335**	**0.1400**	**4.7204**	**0.1171**	**4.8375**	**1.2524**	**0.1120**	**1.3644**	**0.0000**	**13,479.9487**	**13,479.9487**	**0.7631**	**0.0000**	**13,499.0269**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					26.1105	0.0000	26.1105	3.9534	0.0000	3.9534	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2690	2.6321	2.0105	3.8400e-003		0.1272	0.1272		0.1183	0.1183	0.0000	336.2553	336.2553	0.0934	0.0000	338.5910
Total	**0.2690**	**2.6321**	**2.0105**	**3.8400e-003**	**26.1105**	**0.1272**	**26.2376**	**3.9534**	**0.1183**	**4.0716**	**0.0000**	**336.2553**	**336.2553**	**0.0934**	**0.0000**	**338.5910**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.6909	25.7925	4.3870	0.0916	4.3430	0.0649	4.4079	1.1266	0.0621	1.1887	0.0000	8,832.1401	8,832.1401	0.4905	0.0000	8,844.4029
Vendor	0.0324	1.2062	0.2399	3.4400e-003	0.0825	1.8400e-003	0.0844	0.0238	1.7600e-003	0.0256	0.0000	329.7550	329.7550	0.0216	0.0000	330.2959
Worker	6.3900e-003	4.6400e-003	0.0485	1.4000e-004	0.0163	1.0000e-004	0.0164	4.3200e-003	9.0000e-005	4.4200e-003	0.0000	13.0164	13.0164	3.4000e-004	0.0000	13.0249
Total	**0.7297**	**27.0034**	**4.6755**	**0.0952**	**4.4418**	**0.0668**	**4.5087**	**1.1548**	**0.0639**	**1.2187**	**0.0000**	**9,174.9114**	**9,174.9114**	**0.5125**	**0.0000**	**9,187.7236**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					10.1831	0.0000	10.1831	1.5418	0.0000	1.5418	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2690	2.6321	2.0105	3.8400e-003		0.1272	0.1272		0.1183	0.1183	0.0000	336.2549	336.2549	0.0934	0.0000	338.5906
Total	**0.2690**	**2.6321**	**2.0105**	**3.8400e-003**	**10.1831**	**0.1272**	**10.3103**	**1.5418**	**0.1183**	**1.6601**	**0.0000**	**336.2549**	**336.2549**	**0.0934**	**0.0000**	**338.5906**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.6909	25.7925	4.3870	0.0916	4.3430	0.0649	4.4079	1.1266	0.0621	1.1887	0.0000	8,832.1401	8,832.1401	0.4905	0.0000	8,844.4029
Vendor	0.0324	1.2062	0.2399	3.4400e-003	0.0825	1.8400e-003	0.0844	0.0238	1.7600e-003	0.0256	0.0000	329.7550	329.7550	0.0216	0.0000	330.2959
Worker	6.3900e-003	4.6400e-003	0.0485	1.4000e-004	0.0163	1.0000e-004	0.0164	4.3200e-003	9.0000e-005	4.4200e-003	0.0000	13.0164	13.0164	3.4000e-004	0.0000	13.0249
Total	**0.7297**	**27.0034**	**4.6755**	**0.0952**	**4.4418**	**0.0668**	**4.5087**	**1.1548**	**0.0639**	**1.2187**	**0.0000**	**9,174.9114**	**9,174.9114**	**0.5125**	**0.0000**	**9,187.7236**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5924	0.0000	3.5924	1.3189	0.0000	1.3189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	6.0216	2.3880	6.8300e-003		0.2572	0.2572		0.2366	0.2366	0.0000	600.0013	600.0013	0.1941	0.0000	604.8526
Total	**0.5340**	**6.0216**	**2.3880**	**6.8300e-003**	**3.5924**	**0.2572**	**3.8496**	**1.3189**	**0.2366**	**1.5555**	**0.0000**	**600.0013**	**600.0013**	**0.1941**	**0.0000**	**604.8526**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.8578	0.1706	2.4500e-003	0.0587	1.3100e-003	0.0600	0.0169	1.2500e-003	0.0182	0.0000	234.5137	234.5137	0.0154	0.0000	234.8984
Worker	9.0400e-003	6.5700e-003	0.0686	2.0000e-004	0.0230	1.5000e-004	0.0232	6.1200e-003	1.3000e-004	6.2500e-003	0.0000	18.4194	18.4194	4.8000e-004	0.0000	18.4314
Total	**0.0321**	**0.8644**	**0.2393**	**2.6500e-003**	**0.0817**	**1.4600e-003**	**0.0832**	**0.0231**	**1.3800e-003**	**0.0244**	**0.0000**	**252.9331**	**252.9331**	**0.0159**	**0.0000**	**253.3298**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4011	0.0000	1.4011	0.5144	0.0000	0.5144	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	6.0216	2.3880	6.8300e-003		0.2572	0.2572		0.2366	0.2366	0.0000	600.0006	600.0006	0.1941	0.0000	604.8519
Total	**0.5340**	**6.0216**	**2.3880**	**6.8300e-003**	**1.4011**	**0.2572**	**1.6582**	**0.5144**	**0.2366**	**0.7510**	**0.0000**	**600.0006**	**600.0006**	**0.1941**	**0.0000**	**604.8519**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.8578	0.1706	2.4500e-003	0.0587	1.3100e-003	0.0600	0.0169	1.2500e-003	0.0182	0.0000	234.5137	234.5137	0.0154	0.0000	234.8984
Worker	9.0400e-003	6.5700e-003	0.0686	2.0000e-004	0.0230	1.5000e-004	0.0232	6.1200e-003	1.3000e-004	6.2500e-003	0.0000	18.4194	18.4194	4.8000e-004	0.0000	18.4314
Total	**0.0321**	**0.8644**	**0.2393**	**2.6500e-003**	**0.0817**	**1.4600e-003**	**0.0832**	**0.0231**	**1.3800e-003**	**0.0244**	**0.0000**	**252.9331**	**252.9331**	**0.0159**	**0.0000**	**253.3298**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5384	0.0000	4.5384	0.5273	0.0000	0.5273	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0599	0.6651	0.4087	1.0000e-003		0.0267	0.0267		0.0246	0.0246	0.0000	87.9769	87.9769	0.0285	0.0000	88.6883
Total	**0.0599**	**0.6651**	**0.4087**	**1.0000e-003**	**4.5384**	**0.0267**	**4.5651**	**0.5273**	**0.0246**	**0.5519**	**0.0000**	**87.9769**	**87.9769**	**0.0285**	**0.0000**	**88.6883**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9000e-003	0.2574	0.0512	7.3000e-004	0.0176	3.9000e-004	0.0180	5.0800e-003	3.8000e-004	5.4600e-003	0.0000	70.3541	70.3541	4.6200e-003	0.0000	70.4695
Worker	1.2100e-003	8.8000e-004	9.1500e-003	3.0000e-005	3.0700e-003	2.0000e-005	3.0900e-003	8.2000e-004	2.0000e-005	8.3000e-004	0.0000	2.4559	2.4559	6.0000e-005	0.0000	2.4575
Total	**8.1100e-003**	**0.2582**	**0.0603**	**7.6000e-004**	**0.0207**	**4.1000e-004**	**0.0211**	**5.9000e-003**	**4.0000e-004**	**6.2900e-003**	**0.0000**	**72.8100**	**72.8100**	**4.6800e-003**	**0.0000**	**72.9270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7700	0.0000	1.7700	0.2056	0.0000	0.2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0599	0.6651	0.4087	1.0000e-003		0.0267	0.0267		0.0246	0.0246	0.0000	87.9768	87.9768	0.0285	0.0000	88.6882
Total	**0.0599**	**0.6651**	**0.4087**	**1.0000e-003**	**1.7700**	**0.0267**	**1.7967**	**0.2056**	**0.0246**	**0.2302**	**0.0000**	**87.9768**	**87.9768**	**0.0285**	**0.0000**	**88.6882**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9000e-003	0.2574	0.0512	7.3000e-004	0.0176	3.9000e-004	0.0180	5.0800e-003	3.8000e-004	5.4600e-003	0.0000	70.3541	70.3541	4.6200e-003	0.0000	70.4695
Worker	1.2100e-003	8.8000e-004	9.1500e-003	3.0000e-005	3.0700e-003	2.0000e-005	3.0900e-003	8.2000e-004	2.0000e-005	8.3000e-004	0.0000	2.4559	2.4559	6.0000e-005	0.0000	2.4575
Total	**8.1100e-003**	**0.2582**	**0.0603**	**7.6000e-004**	**0.0207**	**4.1000e-004**	**0.0211**	**5.9000e-003**	**4.0000e-004**	**6.2900e-003**	**0.0000**	**72.8100**	**72.8100**	**4.6800e-003**	**0.0000**	**72.9270**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0198	0.0000	6.0198	1.3416	0.0000	1.3416	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0159	10.8403	7.2997	0.0186		0.4343	0.4343		0.3995	0.3995	0.0000	1,633.3550	1,633.3550	0.5283	0.0000	1,646.5615
Total	**1.0159**	**10.8403**	**7.2997**	**0.0186**	**6.0198**	**0.4343**	**6.4541**	**1.3416**	**0.3995**	**1.7411**	**0.0000**	**1,633.3550**	**1,633.3550**	**0.5283**	**0.0000**	**1,646.5615**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0967	3.6849	0.8204	0.0133	0.3270	3.6000e-003	0.3306	0.0944	3.4400e-003	0.0978	0.0000	1,270.6428	1,270.6428	0.0689	0.0000	1,272.3655
Worker	0.0210	0.0146	0.1558	4.9000e-004	0.0570	3.5000e-004	0.0574	0.0151	3.2000e-004	0.0155	0.0000	43.8973	43.8973	1.0600e-003	0.0000	43.9239
Total	**0.1177**	**3.6996**	**0.9762**	**0.0138**	**0.3840**	**3.9500e-003**	**0.3880**	**0.1095**	**3.7600e-003**	**0.1133**	**0.0000**	**1,314.5401**	**1,314.5401**	**0.0700**	**0.0000**	**1,316.2894**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3477	0.0000	2.3477	0.5232	0.0000	0.5232	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0159	10.8403	7.2997	0.0186		0.4343	0.4343		0.3995	0.3995	0.0000	1,633.3531	1,633.3531	0.5283	0.0000	1,646.5596
Total	**1.0159**	**10.8403**	**7.2997**	**0.0186**	**2.3477**	**0.4343**	**2.7820**	**0.5232**	**0.3995**	**0.9228**	**0.0000**	**1,633.3531**	**1,633.3531**	**0.5283**	**0.0000**	**1,646.5596**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0967	3.6849	0.8204	0.0133	0.3270	3.6000e-003	0.3306	0.0944	3.4400e-003	0.0978	0.0000	1,270.6428	1,270.6428	0.0689	0.0000	1,272.3655
Worker	0.0210	0.0146	0.1558	4.9000e-004	0.0570	3.5000e-004	0.0574	0.0151	3.2000e-004	0.0155	0.0000	43.8973	43.8973	1.0600e-003	0.0000	43.9239
Total	**0.1177**	**3.6996**	**0.9762**	**0.0138**	**0.3840**	**3.9500e-003**	**0.3880**	**0.1095**	**3.7600e-003**	**0.1133**	**0.0000**	**1,314.5401**	**1,314.5401**	**0.0700**	**0.0000**	**1,316.2894**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3333	0.0000	5.3333	0.9642	0.0000	0.9642	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5517	5.6906	4.0379	0.0104		0.2294	0.2294		0.2110	0.2110	0.0000	917.0127	917.0127	0.2966	0.0000	924.4272
Total	**0.5517**	**5.6906**	**4.0379**	**0.0104**	**5.3333**	**0.2294**	**5.5627**	**0.9642**	**0.2110**	**1.1753**	**0.0000**	**917.0127**	**917.0127**	**0.2966**	**0.0000**	**924.4272**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0536	2.0796	0.4431	7.4400e-003	0.1836	2.0100e-003	0.1856	0.0530	1.9200e-003	0.0549	0.0000	712.7193	712.7193	0.0387	0.0000	713.6858
Worker	0.0111	7.4400e-003	0.0814	2.6000e-004	0.0320	2.0000e-004	0.0322	8.5000e-003	1.8000e-004	8.6800e-003	0.0000	23.8504	23.8504	5.5000e-004	0.0000	23.8641
Total	**0.0646**	**2.0870**	**0.5245**	**7.7000e-003**	**0.2157**	**2.2100e-003**	**0.2179**	**0.0615**	**2.1000e-003**	**0.0636**	**0.0000**	**736.5697**	**736.5697**	**0.0392**	**0.0000**	**737.5499**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0800	0.0000	2.0800	0.3761	0.0000	0.3761	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5517	5.6906	4.0379	0.0104		0.2294	0.2294		0.2110	0.2110	0.0000	917.0116	917.0116	0.2966	0.0000	924.4261
Total	**0.5517**	**5.6906**	**4.0379**	**0.0104**	**2.0800**	**0.2294**	**2.3094**	**0.3761**	**0.2110**	**0.5871**	**0.0000**	**917.0116**	**917.0116**	**0.2966**	**0.0000**	**924.4261**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0536	2.0796	0.4431	7.4400e-003	0.1836	2.0100e-003	0.1856	0.0530	1.9200e-003	0.0549	0.0000	712.7193	712.7193	0.0387	0.0000	713.6858
Worker	0.0111	7.4400e-003	0.0814	2.6000e-004	0.0320	2.0000e-004	0.0322	8.5000e-003	1.8000e-004	8.6800e-003	0.0000	23.8504	23.8504	5.5000e-004	0.0000	23.8641
Total	**0.0646**	**2.0870**	**0.5245**	**7.7000e-003**	**0.2157**	**2.2100e-003**	**0.2179**	**0.0615**	**2.1000e-003**	**0.0636**	**0.0000**	**736.5697**	**736.5697**	**0.0392**	**0.0000**	**737.5499**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2492	2.4950	1.7930	4.4400e-003		0.1035	0.1035		0.0967	0.0967	0.0000	384.7359	384.7359	0.1011	0.0000	387.2621
Total	**0.2492**	**2.4950**	**1.7930**	**4.4400e-003**		**0.1035**	**0.1035**		**0.0967**	**0.0967**	**0.0000**	**384.7359**	**384.7359**	**0.1011**	**0.0000**	**387.2621**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4341	16.8581	3.5922	0.0603	1.4886	0.0163	1.5049	0.4296	0.0156	0.4452	0.0000	5,777.6580	5,777.6580	0.3134	0.0000	5,785.4935
Worker	2.7041	1.8151	19.8499	0.0643	7.8063	0.0476	7.8539	2.0733	0.0438	2.1171	0.0000	5,815.1772	5,815.1772	0.1329	0.0000	5,818.5005
Total	**3.1382**	**18.6733**	**23.4422**	**0.1246**	**9.2949**	**0.0639**	**9.3588**	**2.5029**	**0.0594**	**2.5623**	**0.0000**	**11,592.8351**	**11,592.8351**	**0.4464**	**0.0000**	**11,603.9941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2492	2.4950	1.7930	4.4400e-003		0.1035	0.1035		0.0967	0.0967	0.0000	384.7355	384.7355	0.1011	0.0000	387.2617
Total	**0.2492**	**2.4950**	**1.7930**	**4.4400e-003**		**0.1035**	**0.1035**		**0.0967**	**0.0967**	**0.0000**	**384.7355**	**384.7355**	**0.1011**	**0.0000**	**387.2617**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4341	16.8581	3.5922	0.0603	1.4886	0.0163	1.5049	0.4296	0.0156	0.4452	0.0000	5,777.6580	5,777.6580	0.3134	0.0000	5,785.4935
Worker	2.7041	1.8151	19.8499	0.0643	7.8063	0.0476	7.8539	2.0733	0.0438	2.1171	0.0000	5,815.1772	5,815.1772	0.1329	0.0000	5,818.5005
Total	**3.1382**	**18.6733**	**23.4422**	**0.1246**	**9.2949**	**0.0639**	**9.3588**	**2.5029**	**0.0594**	**2.5623**	**0.0000**	**11,592.8351**	**11,592.8351**	**0.4464**	**0.0000**	**11,603.9941**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9512	37.6756	7.7624	0.1349	3.3493	0.0362	3.3855	0.9666	0.0346	1.0012	0.0000	12,924.6452	12,924.6452	0.7016	0.0000	12,942.1844
Worker	5.7453	3.7107	41.2589	0.1389	17.5642	0.1050	17.6691	4.6648	0.0966	4.7614	0.0000	12,564.5812	12,564.5812	0.2704	0.0000	12,571.3410
Total	**6.6965**	**41.3863**	**49.0213**	**0.2738**	**20.9135**	**0.1412**	**21.0546**	**5.6315**	**0.1312**	**5.7627**	**0.0000**	**25,489.2264**	**25,489.2264**	**0.9720**	**0.0000**	**25,513.5254**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9512	37.6756	7.7624	0.1349	3.3493	0.0362	3.3855	0.9666	0.0346	1.0012	0.0000	12,924.6452	12,924.6452	0.7016	0.0000	12,942.1844
Worker	5.7453	3.7107	41.2589	0.1389	17.5642	0.1050	17.6691	4.6648	0.0966	4.7614	0.0000	12,564.5812	12,564.5812	0.2704	0.0000	12,571.3410
Total	**6.6965**	**41.3863**	**49.0213**	**0.2738**	**20.9135**	**0.1412**	**21.0546**	**5.6315**	**0.1312**	**5.7627**	**0.0000**	**25,489.2264**	**25,489.2264**	**0.9720**	**0.0000**	**25,513.5254**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9297	37.4097	7.5172	0.1341	3.3493	0.0357	3.3850	0.9666	0.0341	1.0007	0.0000	12,853.0542	12,853.0542	0.6962	0.0000	12,870.4593
Worker	5.4486	3.3936	38.3293	0.1338	17.5642	0.1016	17.6657	4.6648	0.0935	4.7583	0.0000	12,108.9248	12,108.9248	0.2457	0.0000	12,115.0674
Total	**6.3783**	**40.8033**	**45.8465**	**0.2679**	**20.9134**	**0.1373**	**21.0507**	**5.6314**	**0.1276**	**5.7590**	**0.0000**	**24,961.9790**	**24,961.9790**	**0.9419**	**0.0000**	**24,985.5267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9297	37.4097	7.5172	0.1341	3.3493	0.0357	3.3850	0.9666	0.0341	1.0007	0.0000	12,853.0542	12,853.0542	0.6962	0.0000	12,870.4593
Worker	5.4486	3.3936	38.3293	0.1338	17.5642	0.1016	17.6657	4.6648	0.0935	4.7583	0.0000	12,108.9248	12,108.9248	0.2457	0.0000	12,115.0674
Total	**6.3783**	**40.8033**	**45.8465**	**0.2679**	**20.9134**	**0.1373**	**21.0507**	**5.6314**	**0.1276**	**5.7590**	**0.0000**	**24,961.9790**	**24,961.9790**	**0.9419**	**0.0000**	**24,985.5267**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9117	37.1605	7.3133	0.1334	3.3492	0.0351	3.3844	0.9666	0.0336	1.0002	0.0000	12,792.6548	12,792.6548	0.6901	0.0000	12,809.9070
Worker	5.1607	3.1095	35.7251	0.1294	17.5642	0.0962	17.6603	4.6648	0.0885	4.7533	0.0000	11,706.8002	11,706.8002	0.2237	0.0000	11,712.3930
Total	**6.0724**	**40.2700**	**43.0384**	**0.2628**	**20.9134**	**0.1313**	**21.0447**	**5.6314**	**0.1221**	**5.7535**	**0.0000**	**24,499.4550**	**24,499.4550**	**0.9138**	**0.0000**	**24,522.3000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9117	37.1605	7.3133	0.1334	3.3492	0.0351	3.3844	0.9666	0.0336	1.0002	0.0000	12,792.6548	12,792.6548	0.6901	0.0000	12,809.9070
Worker	5.1607	3.1095	35.7251	0.1294	17.5642	0.0962	17.6603	4.6648	0.0885	4.7533	0.0000	11,706.8002	11,706.8002	0.2237	0.0000	11,712.3930
Total	**6.0724**	**40.2700**	**43.0384**	**0.2628**	**20.9134**	**0.1313**	**21.0447**	**5.6314**	**0.1221**	**5.7535**	**0.0000**	**24,499.4550**	**24,499.4550**	**0.9138**	**0.0000**	**24,522.3000**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5071	4.9000	3.9368	9.9600e-003		0.1993	0.1993		0.1862	0.1862	0.0000	862.1181	862.1181	0.2256	0.0000	867.7569
Total	**0.5071**	**4.9000**	**3.9368**	**9.9600e-003**		**0.1993**	**0.1993**		**0.1862**	**0.1862**	**0.0000**	**862.1181**	**862.1181**	**0.2256**	**0.0000**	**867.7569**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8933	36.8231	7.1268	0.1324	3.3364	0.0347	3.3710	0.9629	0.0331	0.9960	0.0000	12,692.4822	12,692.4822	0.6804	0.0000	12,709.4913
Worker	4.8447	2.8439	33.3169	0.1250	17.4969	0.0889	17.5858	4.6470	0.0818	4.7288	0.0000	11,310.2795	11,310.2795	0.2040	0.0000	11,315.3788
Total	**5.7380**	**39.6669**	**40.4437**	**0.2573**	**20.8332**	**0.1236**	**20.9568**	**5.6099**	**0.1149**	**5.7248**	**0.0000**	**24,002.7617**	**24,002.7617**	**0.8843**	**0.0000**	**24,024.8701**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5071	4.9000	3.9368	9.9600e-003		0.1993	0.1993		0.1862	0.1862	0.0000	862.1171	862.1171	0.2256	0.0000	867.7559
Total	**0.5071**	**4.9000**	**3.9368**	**9.9600e-003**		**0.1993**	**0.1993**		**0.1862**	**0.1862**	**0.0000**	**862.1171**	**862.1171**	**0.2256**	**0.0000**	**867.7559**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8933	36.8231	7.1268	0.1324	3.3364	0.0347	3.3710	0.9629	0.0331	0.9960	0.0000	12,692.4822	12,692.4822	0.6804	0.0000	12,709.4913
Worker	4.8447	2.8439	33.3169	0.1250	17.4969	0.0889	17.5858	4.6470	0.0818	4.7288	0.0000	11,310.2795	11,310.2795	0.2040	0.0000	11,315.3788
Total	**5.7380**	**39.6669**	**40.4437**	**0.2573**	**20.8332**	**0.1236**	**20.9568**	**5.6099**	**0.1149**	**5.7248**	**0.0000**	**24,002.7617**	**24,002.7617**	**0.8843**	**0.0000**	**24,024.8701**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4339	865.4339	0.2264	0.0000	871.0944
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4339**	**865.4339**	**0.2264**	**0.0000**	**871.0944**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8837	36.7820	7.0097	0.1324	3.3492	0.0344	3.3836	0.9666	0.0329	0.9995	0.0000	12,698.1327	12,698.1327	0.6765	0.0000	12,715.0442
Worker	4.5384	2.6130	31.2376	0.1220	17.5642	0.0828	17.6470	4.6648	0.0762	4.7410	0.0000	11,042.7931	11,042.7931	0.1865	0.0000	11,047.4544
Total	**5.4221**	**39.3951**	**38.2473**	**0.2544**	**20.9134**	**0.1172**	**21.0306**	**5.6314**	**0.1091**	**5.7405**	**0.0000**	**23,740.9257**	**23,740.9257**	**0.8629**	**0.0000**	**23,762.4985**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5091	4.9188	3.9519	0.0100		0.2001	0.2001		0.1869	0.1869	0.0000	865.4329	865.4329	0.2264	0.0000	871.0934
Total	**0.5091**	**4.9188**	**3.9519**	**0.0100**		**0.2001**	**0.2001**		**0.1869**	**0.1869**	**0.0000**	**865.4329**	**865.4329**	**0.2264**	**0.0000**	**871.0934**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8837	36.7820	7.0097	0.1324	3.3492	0.0344	3.3836	0.9666	0.0329	0.9995	0.0000	12,698.1327	12,698.1327	0.6765	0.0000	12,715.0442
Worker	4.5384	2.6130	31.2376	0.1220	17.5642	0.0828	17.6470	4.6648	0.0762	4.7410	0.0000	11,042.7931	11,042.7931	0.1865	0.0000	11,047.4544
Total	**5.4221**	**39.3951**	**38.2473**	**0.2544**	**20.9134**	**0.1172**	**21.0306**	**5.6314**	**0.1091**	**5.7405**	**0.0000**	**23,740.9257**	**23,740.9257**	**0.8629**	**0.0000**	**23,762.4985**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0907	1,002.0907	0.0397	0.0000	1,003.0843
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0397**	**0.0000**	**1,003.0843**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8733	36.6070	6.9066	0.1320	3.3492	0.0340	3.3832	0.9666	0.0325	0.9991	0.0000	12,661.3120	12,661.3120	0.6696	0.0000	12,678.0525
Worker	4.2199	2.3904	29.2496	0.1189	17.5642	0.0770	17.6411	4.6648	0.0708	4.7356	0.0000	10,768.9553	10,768.9553	0.1701	0.0000	10,773.2071
Total	**5.0932**	**38.9974**	**36.1562**	**0.2509**	**20.9133**	**0.1110**	**21.0243**	**5.6314**	**0.1033**	**5.7347**	**0.0000**	**23,430.2673**	**23,430.2673**	**0.8397**	**0.0000**	**23,451.2595**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0895	1,002.0895	0.0397	0.0000	1,003.0831
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0397**	**0.0000**	**1,003.0831**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8733	36.6070	6.9066	0.1320	3.3492	0.0340	3.3832	0.9666	0.0325	0.9991	0.0000	12,661.3120	12,661.3120	0.6696	0.0000	12,678.0525
Worker	4.2199	2.3904	29.2496	0.1189	17.5642	0.0770	17.6411	4.6648	0.0708	4.7356	0.0000	10,768.9553	10,768.9553	0.1701	0.0000	10,773.2071
Total	**5.0932**	**38.9974**	**36.1562**	**0.2509**	**20.9133**	**0.1110**	**21.0243**	**5.6314**	**0.1033**	**5.7347**	**0.0000**	**23,430.2673**	**23,430.2673**	**0.8397**	**0.0000**	**23,451.2595**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0907	1,002.0907	0.0397	0.0000	1,003.0843
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0397**	**0.0000**	**1,003.0843**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8734	36.6414	6.8792	0.1320	3.3492	0.0338	3.3830	0.9666	0.0323	0.9989	0.0000	12,666.3124	12,666.3124	0.6641	0.0000	12,682.9142
Worker	3.8717	2.1723	27.4678	0.1164	17.5642	0.0720	17.6362	4.6648	0.0663	4.7311	0.0000	10,544.0197	10,544.0197	0.1553	0.0000	10,547.9014
Total	**4.7451**	**38.8137**	**34.3470**	**0.2485**	**20.9133**	**0.1059**	**21.0192**	**5.6314**	**0.0986**	**5.7300**	**0.0000**	**23,210.3321**	**23,210.3321**	**0.8193**	**0.0000**	**23,230.8156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4956	2.4900	3.7650	0.0118		0.0677	0.0677		0.0677	0.0677	0.0000	1,002.0895	1,002.0895	0.0397	0.0000	1,003.0831
Total	**0.4956**	**2.4900**	**3.7650**	**0.0118**		**0.0677**	**0.0677**		**0.0677**	**0.0677**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0397**	**0.0000**	**1,003.0831**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8734	36.6414	6.8792	0.1320	3.3492	0.0338	3.3830	0.9666	0.0323	0.9989	0.0000	12,666.3124	12,666.3124	0.6641	0.0000	12,682.9142
Worker	3.8717	2.1723	27.4678	0.1164	17.5642	0.0720	17.6362	4.6648	0.0663	4.7311	0.0000	10,544.0197	10,544.0197	0.1553	0.0000	10,547.9014
Total	**4.7451**	**38.8137**	**34.3470**	**0.2485**	**20.9133**	**0.1059**	**21.0192**	**5.6314**	**0.0986**	**5.7300**	**0.0000**	**23,210.3321**	**23,210.3321**	**0.8193**	**0.0000**	**23,230.8156**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4975	2.4995	3.7794	0.0118		0.0679	0.0679		0.0679	0.0679	0.0000	1,005.9302	1,005.9302	0.0399	0.0000	1,006.9275
Total	**0.4975**	**2.4995**	**3.7794**	**0.0118**		**0.0679**	**0.0679**		**0.0679**	**0.0679**	**0.0000**	**1,005.9302**	**1,005.9302**	**0.0399**	**0.0000**	**1,006.9275**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8711	36.6461	6.8551	0.1324	3.3620	0.0337	3.3957	0.9703	0.0322	1.0025	0.0000	12,699.0384	12,699.0384	0.6619	0.0000	12,715.5868
Worker	3.5757	1.9920	25.8545	0.1145	17.6314	0.0673	17.6988	4.6827	0.0619	4.7446	0.0000	10,372.6084	10,372.6084	0.1420	0.0000	10,376.1588
Total	**4.4468**	**38.6382**	**32.7096**	**0.2469**	**20.9934**	**0.1010**	**21.0945**	**5.6530**	**0.0941**	**5.7471**	**0.0000**	**23,071.6468**	**23,071.6468**	**0.8040**	**0.0000**	**23,091.7456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4975	2.4995	3.7794	0.0118		0.0679	0.0679		0.0679	0.0679	0.0000	1,005.9290	1,005.9290	0.0399	0.0000	1,006.9263
Total	**0.4975**	**2.4995**	**3.7794**	**0.0118**		**0.0679**	**0.0679**		**0.0679**	**0.0679**	**0.0000**	**1,005.9290**	**1,005.9290**	**0.0399**	**0.0000**	**1,006.9263**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8711	36.6461	6.8551	0.1324	3.3620	0.0337	3.3957	0.9703	0.0322	1.0025	0.0000	12,699.0384	12,699.0384	0.6619	0.0000	12,715.5868
Worker	3.5757	1.9920	25.8545	0.1145	17.6314	0.0673	17.6988	4.6827	0.0619	4.7446	0.0000	10,372.6084	10,372.6084	0.1420	0.0000	10,376.1588
Total	**4.4468**	**38.6382**	**32.7096**	**0.2469**	**20.9934**	**0.1010**	**21.0945**	**5.6530**	**0.0941**	**5.7471**	**0.0000**	**23,071.6468**	**23,071.6468**	**0.8040**	**0.0000**	**23,091.7456**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2513	998.2513	0.0396	0.0000	999.2410
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2513**	**998.2513**	**0.0396**	**0.0000**	**999.2410**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8609	36.2470	6.7667	0.1312	3.3363	0.0332	3.3695	0.9629	0.0317	0.9946	0.0000	12,592.4483	12,592.4483	0.6525	0.0000	12,608.7595
Worker	3.2813	1.8173	24.1875	0.1116	17.4969	0.0623	17.5592	4.6470	0.0573	4.7043	0.0000	10,110.7726	10,110.7726	0.1291	0.0000	10,114.0012
Total	**4.1422**	**38.0643**	**30.9541**	**0.2429**	**20.8332**	**0.0955**	**20.9287**	**5.6098**	**0.0891**	**5.6989**	**0.0000**	**22,703.2209**	**22,703.2209**	**0.7816**	**0.0000**	**22,722.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2501	998.2501	0.0396	0.0000	999.2398
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2501**	**998.2501**	**0.0396**	**0.0000**	**999.2398**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8609	36.2470	6.7667	0.1312	3.3363	0.0332	3.3695	0.9629	0.0317	0.9946	0.0000	12,592.4483	12,592.4483	0.6525	0.0000	12,608.7595
Worker	3.2813	1.8173	24.1875	0.1116	17.4969	0.0623	17.5592	4.6470	0.0573	4.7043	0.0000	10,110.7726	10,110.7726	0.1291	0.0000	10,114.0012
Total	**4.1422**	**38.0643**	**30.9541**	**0.2429**	**20.8332**	**0.0955**	**20.9287**	**5.6098**	**0.0891**	**5.6989**	**0.0000**	**22,703.2209**	**22,703.2209**	**0.7816**	**0.0000**	**22,722.7607**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2513	998.2513	0.0396	0.0000	999.2410
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2513**	**998.2513**	**0.0396**	**0.0000**	**999.2410**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8578	36.1427	6.7349	0.1312	3.3363	0.0329	3.3692	0.9629	0.0315	0.9943	0.0000	12,587.4977	12,587.4977	0.6485	0.0000	12,603.7107
Worker	3.0594	1.6858	22.8072	0.1099	17.4969	0.0582	17.5551	4.6470	0.0535	4.7005	0.0000	9,952.1269	9,952.1269	0.1182	0.0000	9,955.0817
Total	**3.9172**	**37.8285**	**29.5421**	**0.2410**	**20.8332**	**0.0912**	**20.9243**	**5.6098**	**0.0850**	**5.6948**	**0.0000**	**22,539.6247**	**22,539.6247**	**0.7667**	**0.0000**	**22,558.7924**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4937	2.4804	3.7506	0.0117		0.0674	0.0674		0.0674	0.0674	0.0000	998.2501	998.2501	0.0396	0.0000	999.2398
Total	**0.4937**	**2.4804**	**3.7506**	**0.0117**		**0.0674**	**0.0674**		**0.0674**	**0.0674**	**0.0000**	**998.2501**	**998.2501**	**0.0396**	**0.0000**	**999.2398**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8578	36.1427	6.7349	0.1312	3.3363	0.0329	3.3692	0.9629	0.0315	0.9943	0.0000	12,587.4977	12,587.4977	0.6485	0.0000	12,603.7107
Worker	3.0594	1.6858	22.8072	0.1099	17.4969	0.0582	17.5551	4.6470	0.0535	4.7005	0.0000	9,952.1269	9,952.1269	0.1182	0.0000	9,955.0817
Total	**3.9172**	**37.8285**	**29.5421**	**0.2410**	**20.8332**	**0.0912**	**20.9243**	**5.6098**	**0.0850**	**5.6948**	**0.0000**	**22,539.6247**	**22,539.6247**	**0.7667**	**0.0000**	**22,558.7924**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0907	1,002.0907	0.0353	0.0000	1,002.9726
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0353**	**0.0000**	**1,002.9726**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0895	1,002.0895	0.0353	0.0000	1,002.9714
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0353**	**0.0000**	**1,002.9714**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4442	1.9025	3.7440	0.0118		0.0423	0.0423		0.0423	0.0423	0.0000	1,005.9302	1,005.9302	0.0354	0.0000	1,006.8154
Total	**0.4442**	**1.9025**	**3.7440**	**0.0118**		**0.0423**	**0.0423**		**0.0423**	**0.0423**	**0.0000**	**1,005.9302**	**1,005.9302**	**0.0354**	**0.0000**	**1,006.8154**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8619	36.3330	6.7607	0.1321	3.3620	0.0330	3.3949	0.9703	0.0315	1.0018	0.0000	12,681.5842	12,681.5842	0.6501	0.0000	12,697.8354
Worker	2.8952	1.5999	21.8297	0.1092	17.6314	0.0550	17.6864	4.6827	0.0505	4.7333	0.0000	9,892.3373	9,892.3373	0.1100	0.0000	9,895.0874
Total	**3.7571**	**37.9329**	**28.5904**	**0.2413**	**20.9934**	**0.0879**	**21.0813**	**5.6530**	**0.0821**	**5.7350**	**0.0000**	**22,573.9215**	**22,573.9215**	**0.7601**	**0.0000**	**22,592.9228**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4442	1.9025	3.7440	0.0118		0.0423	0.0423		0.0423	0.0423	0.0000	1,005.9290	1,005.9290	0.0354	0.0000	1,006.8142
Total	**0.4442**	**1.9025**	**3.7440**	**0.0118**		**0.0423**	**0.0423**		**0.0423**	**0.0423**	**0.0000**	**1,005.9290**	**1,005.9290**	**0.0354**	**0.0000**	**1,006.8142**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8619	36.3330	6.7607	0.1321	3.3620	0.0330	3.3949	0.9703	0.0315	1.0018	0.0000	12,681.5842	12,681.5842	0.6501	0.0000	12,697.8354
Worker	2.8952	1.5999	21.8297	0.1092	17.6314	0.0550	17.6864	4.6827	0.0505	4.7333	0.0000	9,892.3373	9,892.3373	0.1100	0.0000	9,895.0874
Total	**3.7571**	**37.9329**	**28.5904**	**0.2413**	**20.9934**	**0.0879**	**21.0813**	**5.6530**	**0.0821**	**5.7350**	**0.0000**	**22,573.9215**	**22,573.9215**	**0.7601**	**0.0000**	**22,592.9228**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0907	1,002.0907	0.0353	0.0000	1,002.9726
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0353**	**0.0000**	**1,002.9726**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0895	1,002.0895	0.0353	0.0000	1,002.9714
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0353**	**0.0000**	**1,002.9714**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0907	1,002.0907	0.0353	0.0000	1,002.9726
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0907**	**1,002.0907**	**0.0353**	**0.0000**	**1,002.9726**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4425	1.8952	3.7298	0.0118		0.0422	0.0422		0.0422	0.0422	0.0000	1,002.0895	1,002.0895	0.0353	0.0000	1,002.9714
Total	**0.4425**	**1.8952**	**3.7298**	**0.0118**		**0.0422**	**0.0422**		**0.0422**	**0.0422**	**0.0000**	**1,002.0895**	**1,002.0895**	**0.0353**	**0.0000**	**1,002.9714**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8586	36.1943	6.7349	0.1316	3.3491	0.0329	3.3820	0.9666	0.0314	0.9980	0.0000	12,633.1812	12,633.1812	0.6476	0.0000	12,649.3704
Worker	2.8841	1.5938	21.7464	0.1088	17.5642	0.0547	17.6189	4.6648	0.0504	4.7152	0.0000	9,854.5803	9,854.5803	0.1096	0.0000	9,857.3199
Total	**3.7427**	**37.7881**	**28.4812**	**0.2404**	**20.9133**	**0.0876**	**21.0009**	**5.6314**	**0.0817**	**5.7131**	**0.0000**	**22,487.7614**	**22,487.7614**	**0.7572**	**0.0000**	**22,506.6903**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4408	1.8879	3.7155	0.0117		0.0420	0.0420		0.0420	0.0420	0.0000	998.2513	998.2513	0.0351	0.0000	999.1298
Total	**0.4408**	**1.8879**	**3.7155**	**0.0117**		**0.0420**	**0.0420**		**0.0420**	**0.0420**	**0.0000**	**998.2513**	**998.2513**	**0.0351**	**0.0000**	**999.1298**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8553	36.0557	6.7091	0.1311	3.3363	0.0327	3.3690	0.9629	0.0313	0.9941	0.0000	12,584.7782	12,584.7782	0.6451	0.0000	12,600.9053
Worker	2.8731	1.5877	21.6630	0.1083	17.4969	0.0545	17.5514	4.6470	0.0502	4.6971	0.0000	9,816.8233	9,816.8233	0.1092	0.0000	9,819.5524
Total	**3.7284**	**37.6433**	**28.3721**	**0.2395**	**20.8331**	**0.0873**	**20.9204**	**5.6098**	**0.0814**	**5.6913**	**0.0000**	**22,401.6014**	**22,401.6014**	**0.7543**	**0.0000**	**22,420.4578**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4408	1.8879	3.7155	0.0117		0.0420	0.0420		0.0420	0.0420	0.0000	998.2501	998.2501	0.0351	0.0000	999.1286
Total	**0.4408**	**1.8879**	**3.7155**	**0.0117**		**0.0420**	**0.0420**		**0.0420**	**0.0420**	**0.0000**	**998.2501**	**998.2501**	**0.0351**	**0.0000**	**999.1286**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8553	36.0557	6.7091	0.1311	3.3363	0.0327	3.3690	0.9629	0.0313	0.9941	0.0000	12,584.7782	12,584.7782	0.6451	0.0000	12,600.9053
Worker	2.8731	1.5877	21.6630	0.1083	17.4969	0.0545	17.5514	4.6470	0.0502	4.6971	0.0000	9,816.8233	9,816.8233	0.1092	0.0000	9,819.5524
Total	**3.7284**	**37.6433**	**28.3721**	**0.2395**	**20.8331**	**0.0873**	**20.9204**	**5.6098**	**0.0814**	**5.6913**	**0.0000**	**22,401.6014**	**22,401.6014**	**0.7543**	**0.0000**	**22,420.4578**

3.5 Building Construction - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4198	1.6216	3.7140	0.0118		0.0310	0.0310		0.0310	0.0310	0.0000	1,002.0908	1,002.0908	0.0338	0.0000	1,002.9354
Total	**0.4198**	**1.6216**	**3.7140**	**0.0118**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**1,002.0908**	**1,002.0908**	**0.0338**	**0.0000**	**1,002.9354**

3.5 Building Construction - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8534	35.9739	6.6295	0.1317	3.3492	0.0324	3.3815	0.9666	0.0310	0.9975	0.0000	12,637.9707	12,637.9707	0.6380	0.0000	12,653.9213
Worker	2.2075	1.2845	18.2500	0.1041	17.5642	0.0423	17.6064	4.6648	0.0389	4.7037	0.0000	9,436.1215	9,436.1215	0.0823	0.0000	9,438.1785
Total	**3.0609**	**37.2584**	**24.8795**	**0.2358**	**20.9133**	**0.0746**	**20.9879**	**5.6314**	**0.0698**	**5.7012**	**0.0000**	**22,074.0923**	**22,074.0923**	**0.7203**	**0.0000**	**22,092.0998**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4198	1.6216	3.7139	0.0118		0.0310	0.0310		0.0310	0.0310	0.0000	1,002.0896	1,002.0896	0.0338	0.0000	1,002.9342
Total	**0.4198**	**1.6216**	**3.7139**	**0.0118**		**0.0310**	**0.0310**		**0.0310**	**0.0310**	**0.0000**	**1,002.0896**	**1,002.0896**	**0.0338**	**0.0000**	**1,002.9342**

3.5 Building Construction - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8534	35.9739	6.6295	0.1317	3.3492	0.0324	3.3815	0.9666	0.0310	0.9975	0.0000	12,637.9707	12,637.9707	0.6380	0.0000	12,653.9213
Worker	2.2075	1.2845	18.2500	0.1041	17.5642	0.0423	17.6064	4.6648	0.0389	4.7037	0.0000	9,436.1215	9,436.1215	0.0823	0.0000	9,438.1785
Total	**3.0609**	**37.2584**	**24.8795**	**0.2358**	**20.9133**	**0.0746**	**20.9879**	**5.6314**	**0.0698**	**5.7012**	**0.0000**	**22,074.0923**	**22,074.0923**	**0.7203**	**0.0000**	**22,092.0998**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0443	0.2900	0.6088	1.0100e-003		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	86.4702	86.4702	3.5000e-003	0.0000	86.5577
Total	**2.6770**	**0.2900**	**0.6088**	**1.0100e-003**		**6.8800e-003**	**6.8800e-003**		**6.8800e-003**	**6.8800e-003**	**0.0000**	**86.4702**	**86.4702**	**3.5000e-003**	**0.0000**	**86.5577**

3.6 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6933	0.3862	5.0130	0.0222	3.4186	0.0131	3.4317	0.9079	0.0120	0.9200	0.0000	2,011.1775	2,011.1775	0.0275	0.0000	2,011.8659
Total	**0.6933**	**0.3862**	**5.0130**	**0.0222**	**3.4186**	**0.0131**	**3.4317**	**0.9079**	**0.0120**	**0.9200**	**0.0000**	**2,011.1775**	**2,011.1775**	**0.0275**	**0.0000**	**2,011.8659**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0443	0.2900	0.6088	1.0100e-003		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	86.4701	86.4701	3.5000e-003	0.0000	86.5576
Total	**2.6770**	**0.2900**	**0.6088**	**1.0100e-003**		**6.8800e-003**	**6.8800e-003**		**6.8800e-003**	**6.8800e-003**	**0.0000**	**86.4701**	**86.4701**	**3.5000e-003**	**0.0000**	**86.5576**

3.6 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6933	0.3862	5.0130	0.0222	3.4186	0.0131	3.4317	0.9079	0.0120	0.9200	0.0000	2,011.1775	2,011.1775	0.0275	0.0000	2,011.8659
Total	**0.6933**	**0.3862**	**5.0130**	**0.0222**	**3.4186**	**0.0131**	**3.4317**	**0.9079**	**0.0120**	**0.9200**	**0.0000**	**2,011.1775**	**2,011.1775**	**0.0275**	**0.0000**	**2,011.8659**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5128	88.5128	3.5800e-003	0.0000	88.6024
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5128**	**88.5128**	**3.5800e-003**	**0.0000**	**88.6024**

3.6 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6563	0.3635	4.8375	0.0223	3.4994	0.0125	3.5118	0.9294	0.0115	0.9409	0.0000	2,022.1545	2,022.1545	0.0258	0.0000	2,022.8002
Total	**0.6563**	**0.3635**	**4.8375**	**0.0223**	**3.4994**	**0.0125**	**3.5118**	**0.9294**	**0.0115**	**0.9409**	**0.0000**	**2,022.1545**	**2,022.1545**	**0.0258**	**0.0000**	**2,022.8002**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5127	88.5127	3.5800e-003	0.0000	88.6023
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5127**	**88.5127**	**3.5800e-003**	**0.0000**	**88.6023**

3.6 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6563	0.3635	4.8375	0.0223	3.4994	0.0125	3.5118	0.9294	0.0115	0.9409	0.0000	2,022.1545	2,022.1545	0.0258	0.0000	2,022.8002
Total	**0.6563**	**0.3635**	**4.8375**	**0.0223**	**3.4994**	**0.0125**	**3.5118**	**0.9294**	**0.0115**	**0.9409**	**0.0000**	**2,022.1545**	**2,022.1545**	**0.0258**	**0.0000**	**2,022.8002**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5128	88.5128	3.5800e-003	0.0000	88.6024
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5128**	**88.5128**	**3.5800e-003**	**0.0000**	**88.6024**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6119	0.3372	4.5614	0.0220	3.4994	0.0116	3.5110	0.9294	0.0107	0.9401	0.0000	1,990.4254	1,990.4254	0.0236	0.0000	1,991.0163
Total	**0.6119**	**0.3372**	**4.5614**	**0.0220**	**3.4994**	**0.0116**	**3.5110**	**0.9294**	**0.0107**	**0.9401**	**0.0000**	**1,990.4254**	**1,990.4254**	**0.0236**	**0.0000**	**1,991.0163**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0453	0.2968	0.6232	1.0300e-003		7.0400e-003	7.0400e-003		7.0400e-003	7.0400e-003	0.0000	88.5127	88.5127	3.5800e-003	0.0000	88.6023
Total	**2.7403**	**0.2968**	**0.6232**	**1.0300e-003**		**7.0400e-003**	**7.0400e-003**		**7.0400e-003**	**7.0400e-003**	**0.0000**	**88.5127**	**88.5127**	**3.5800e-003**	**0.0000**	**88.6023**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6119	0.3372	4.5614	0.0220	3.4994	0.0116	3.5110	0.9294	0.0107	0.9401	0.0000	1,990.4254	1,990.4254	0.0236	0.0000	1,991.0163
Total	**0.6119**	**0.3372**	**4.5614**	**0.0220**	**3.4994**	**0.0116**	**3.5110**	**0.9294**	**0.0107**	**0.9401**	**0.0000**	**1,990.4254**	**1,990.4254**	**0.0236**	**0.0000**	**1,991.0163**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8532	88.8532	3.2800e-003	0.0000	88.9353
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8532**	**88.8532**	**3.2800e-003**	**0.0000**	**88.9353**

3.6 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8531	88.8531	3.2800e-003	0.0000	88.9352
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8531**	**88.8531**	**3.2800e-003**	**0.0000**	**88.9352**

3.6 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0412	0.2647	0.6268	1.0400e-003		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	89.1937	89.1937	3.3000e-003	0.0000	89.2761
Total	**2.7569**	**0.2647**	**0.6268**	**1.0400e-003**		**3.4600e-003**	**3.4600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**89.1937**	**89.1937**	**3.3000e-003**	**0.0000**	**89.2761**

3.6 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5790	0.3200	4.3659	0.0218	3.5263	0.0110	3.5373	0.9365	0.0101	0.9467	0.0000	1,978.4675	1,978.4675	0.0220	0.0000	1,979.0175
Total	**0.5790**	**0.3200**	**4.3659**	**0.0218**	**3.5263**	**0.0110**	**3.5373**	**0.9365**	**0.0101**	**0.9467**	**0.0000**	**1,978.4675**	**1,978.4675**	**0.0220**	**0.0000**	**1,979.0175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0412	0.2647	0.6268	1.0400e-003		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	89.1936	89.1936	3.3000e-003	0.0000	89.2760
Total	**2.7569**	**0.2647**	**0.6268**	**1.0400e-003**		**3.4600e-003**	**3.4600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**89.1936**	**89.1936**	**3.3000e-003**	**0.0000**	**89.2760**

3.6 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5790	0.3200	4.3659	0.0218	3.5263	0.0110	3.5373	0.9365	0.0101	0.9467	0.0000	1,978.4675	1,978.4675	0.0220	0.0000	1,979.0175
Total	**0.5790**	**0.3200**	**4.3659**	**0.0218**	**3.5263**	**0.0110**	**3.5373**	**0.9365**	**0.0101**	**0.9467**	**0.0000**	**1,978.4675**	**1,978.4675**	**0.0220**	**0.0000**	**1,979.0175**

3.6 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8532	88.8532	3.2800e-003	0.0000	88.9353
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8532**	**88.8532**	**3.2800e-003**	**0.0000**	**88.9353**

3.6 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8531	88.8531	3.2800e-003	0.0000	88.9352
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8531**	**88.8531**	**3.2800e-003**	**0.0000**	**88.9352**

3.6 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8532	88.8532	3.2800e-003	0.0000	88.9353
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8532**	**88.8532**	**3.2800e-003**	**0.0000**	**88.9353**

3.6 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.2637	0.6244	1.0300e-003		3.4500e-003	3.4500e-003		3.4500e-003	3.4500e-003	0.0000	88.8531	88.8531	3.2800e-003	0.0000	88.9352
Total	**2.7463**	**0.2637**	**0.6244**	**1.0300e-003**		**3.4500e-003**	**3.4500e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**88.8531**	**88.8531**	**3.2800e-003**	**0.0000**	**88.9352**

3.6 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5768	0.3188	4.3493	0.0218	3.5128	0.0110	3.5238	0.9330	0.0101	0.9430	0.0000	1,970.9161	1,970.9161	0.0219	0.0000	1,971.4640
Total	**0.5768**	**0.3188**	**4.3493**	**0.0218**	**3.5128**	**0.0110**	**3.5238**	**0.9330**	**0.0101**	**0.9430**	**0.0000**	**1,970.9161**	**1,970.9161**	**0.0219**	**0.0000**	**1,971.4640**

3.6 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0409	0.2627	0.6220	1.0300e-003		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	88.5128	88.5128	3.2700e-003	0.0000	88.5946
Total	**2.7358**	**0.2627**	**0.6220**	**1.0300e-003**		**3.4300e-003**	**3.4300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**88.5128**	**88.5128**	**3.2700e-003**	**0.0000**	**88.5946**

3.6 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5746	0.3175	4.3326	0.0217	3.4994	0.0109	3.5103	0.9294	0.0100	0.9394	0.0000	1,963.3647	1,963.3647	0.0218	0.0000	1,963.9105
Total	**0.5746**	**0.3175**	**4.3326**	**0.0217**	**3.4994**	**0.0109**	**3.5103**	**0.9294**	**0.0100**	**0.9394**	**0.0000**	**1,963.3647**	**1,963.3647**	**0.0218**	**0.0000**	**1,963.9105**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0409	0.2627	0.6220	1.0300e-003		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	88.5127	88.5127	3.2700e-003	0.0000	88.5945
Total	**2.7358**	**0.2627**	**0.6220**	**1.0300e-003**		**3.4300e-003**	**3.4300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**88.5127**	**88.5127**	**3.2700e-003**	**0.0000**	**88.5945**

3.6 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.5746	0.3175	4.3326	0.0217	3.4994	0.0109	3.5103	0.9294	0.0100	0.9394	0.0000	1,963.3647	1,963.3647	0.0218	0.0000	1,963.9105
Total	**0.5746**	**0.3175**	**4.3326**	**0.0217**	**3.4994**	**0.0109**	**3.5103**	**0.9294**	**0.0100**	**0.9394**	**0.0000**	**1,963.3647**	**1,963.3647**	**0.0218**	**0.0000**	**1,963.9105**

3.6 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0400	0.2530	0.6237	1.0300e-003		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	88.8532	88.8532	3.1300e-003	0.0000	88.9314
Total	**2.7453**	**0.2530**	**0.6237**	**1.0300e-003**		**2.5900e-003**	**2.5900e-003**		**2.5900e-003**	**2.5900e-003**	**0.0000**	**88.8532**	**88.8532**	**3.1300e-003**	**0.0000**	**88.9314**

3.6 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4415	0.2569	3.6500	0.0208	3.5128	8.4500e-003	3.5213	0.9330	7.7700e-003	0.9407	0.0000	1,887.2243	1,887.2243	0.0165	0.0000	1,887.6357
Total	**0.4415**	**0.2569**	**3.6500**	**0.0208**	**3.5128**	**8.4500e-003**	**3.5213**	**0.9330**	**7.7700e-003**	**0.9407**	**0.0000**	**1,887.2243**	**1,887.2243**	**0.0165**	**0.0000**	**1,887.6357**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0400	0.2530	0.6237	1.0300e-003		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	88.8531	88.8531	3.1300e-003	0.0000	88.9313
Total	**2.7453**	**0.2530**	**0.6237**	**1.0300e-003**		**2.5900e-003**	**2.5900e-003**		**2.5900e-003**	**2.5900e-003**	**0.0000**	**88.8531**	**88.8531**	**3.1300e-003**	**0.0000**	**88.9313**

3.6 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4415	0.2569	3.6500	0.0208	3.5128	8.4500e-003	3.5213	0.9330	7.7700e-003	0.9407	0.0000	1,887.2243	1,887.2243	0.0165	0.0000	1,887.6357
Total	**0.4415**	**0.2569**	**3.6500**	**0.0208**	**3.5128**	**8.4500e-003**	**3.5213**	**0.9330**	**7.7700e-003**	**0.9407**	**0.0000**	**1,887.2243**	**1,887.2243**	**0.0165**	**0.0000**	**1,887.6357**

3.7 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0730	0.3121	1.0125	1.8000e-003		0.0120	0.0120		0.0120	0.0120	0.0000	154.2369	154.2369	5.9400e-003	0.0000	154.3853
Paving	0.0669					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1399**	**0.3121**	**1.0125**	**1.8000e-003**		**0.0120**	**0.0120**		**0.0120**	**0.0120**	**0.0000**	**154.2369**	**154.2369**	**5.9400e-003**	**0.0000**	**154.3853**

3.7 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7300e-003	9.6000e-004	0.0130	7.0000e-005	0.0105	3.0000e-005	0.0106	2.8000e-003	3.0000e-005	2.8300e-003	0.0000	5.9058	5.9058	7.0000e-005	0.0000	5.9074
Total	**1.7300e-003**	**9.6000e-004**	**0.0130**	**7.0000e-005**	**0.0105**	**3.0000e-005**	**0.0106**	**2.8000e-003**	**3.0000e-005**	**2.8300e-003**	**0.0000**	**5.9058**	**5.9058**	**7.0000e-005**	**0.0000**	**5.9074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0730	0.3121	1.0125	1.8000e-003		0.0120	0.0120		0.0120	0.0120	0.0000	154.2367	154.2367	5.9400e-003	0.0000	154.3851
Paving	0.0669					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1399**	**0.3121**	**1.0125**	**1.8000e-003**		**0.0120**	**0.0120**		**0.0120**	**0.0120**	**0.0000**	**154.2367**	**154.2367**	**5.9400e-003**	**0.0000**	**154.3851**

3.7 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7300e-003	9.6000e-004	0.0130	7.0000e-005	0.0105	3.0000e-005	0.0106	2.8000e-003	3.0000e-005	2.8300e-003	0.0000	5.9058	5.9058	7.0000e-005	0.0000	5.9074
Total	**1.7300e-003**	**9.6000e-004**	**0.0130**	**7.0000e-005**	**0.0105**	**3.0000e-005**	**0.0106**	**2.8000e-003**	**3.0000e-005**	**2.8300e-003**	**0.0000**	**5.9058**	**5.9058**	**7.0000e-005**	**0.0000**	**5.9074**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2965	1.2678	4.1133	7.2900e-003		0.0487	0.0487		0.0487	0.0487	0.0000	626.5874	626.5874	0.0241	0.0000	627.1902
Paving	0.2719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5684**	**1.2678**	**4.1133**	**7.2900e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**626.5874**	**626.5874**	**0.0241**	**0.0000**	**627.1902**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0200e-003	3.8800e-003	0.0529	2.6000e-004	0.0428	1.3000e-004	0.0429	0.0114	1.2000e-004	0.0115	0.0000	23.9922	23.9922	2.7000e-004	0.0000	23.9989
Total	**7.0200e-003**	**3.8800e-003**	**0.0529**	**2.6000e-004**	**0.0428**	**1.3000e-004**	**0.0429**	**0.0114**	**1.2000e-004**	**0.0115**	**0.0000**	**23.9922**	**23.9922**	**2.7000e-004**	**0.0000**	**23.9989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2965	1.2678	4.1133	7.2900e-003		0.0487	0.0487		0.0487	0.0487	0.0000	626.5866	626.5866	0.0241	0.0000	627.1895
Paving	0.2719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5684**	**1.2678**	**4.1133**	**7.2900e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**626.5866**	**626.5866**	**0.0241**	**0.0000**	**627.1895**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0200e-003	3.8800e-003	0.0529	2.6000e-004	0.0428	1.3000e-004	0.0429	0.0114	1.2000e-004	0.0115	0.0000	23.9922	23.9922	2.7000e-004	0.0000	23.9989
Total	**7.0200e-003**	**3.8800e-003**	**0.0529**	**2.6000e-004**	**0.0428**	**1.3000e-004**	**0.0429**	**0.0114**	**1.2000e-004**	**0.0115**	**0.0000**	**23.9922**	**23.9922**	**2.7000e-004**	**0.0000**	**23.9989**

3.7 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2639	0.9544	4.1284	7.3200e-003		0.0304	0.0304		0.0304	0.0304	0.0000	628.9973	628.9973	0.0211	0.0000	629.5258
Paving	0.2729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5369**	**0.9544**	**4.1284**	**7.3200e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**628.9973**	**628.9973**	**0.0211**	**0.0000**	**629.5258**

3.7 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-003	3.1400e-003	0.0446	2.5000e-004	0.0429	1.0000e-004	0.0430	0.0114	9.0000e-005	0.0115	0.0000	23.0618	23.0618	2.0000e-004	0.0000	23.0668
Total	**5.4000e-003**	**3.1400e-003**	**0.0446**	**2.5000e-004**	**0.0429**	**1.0000e-004**	**0.0430**	**0.0114**	**9.0000e-005**	**0.0115**	**0.0000**	**23.0618**	**23.0618**	**2.0000e-004**	**0.0000**	**23.0668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2639	0.9544	4.1284	7.3200e-003		0.0304	0.0304		0.0304	0.0304	0.0000	628.9966	628.9966	0.0211	0.0000	629.5251
Paving	0.2729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5369**	**0.9544**	**4.1284**	**7.3200e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**628.9966**	**628.9966**	**0.0211**	**0.0000**	**629.5251**

3.7 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-003	3.1400e-003	0.0446	2.5000e-004	0.0429	1.0000e-004	0.0430	0.0114	9.0000e-005	0.0115	0.0000	23.0618	23.0618	2.0000e-004	0.0000	23.0668
Total	**5.4000e-003**	**3.1400e-003**	**0.0446**	**2.5000e-004**	**0.0429**	**1.0000e-004**	**0.0430**	**0.0114**	**9.0000e-005**	**0.0115**	**0.0000**	**23.0618**	**23.0618**	**2.0000e-004**	**0.0000**	**23.0668**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Unrefrigerated Warehouse-No Rail	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Unmitigated	39.3254	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.5681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.7230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0344	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.5681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.7230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0344	3.3800e-003	0.3761	3.0000e-005		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	0.7361	0.7361	1.9000e-003	0.0000	0.7835
Total	**39.3254**	**3.3800e-003**	**0.3761**	**3.0000e-005**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.7361**	**0.7361**	**1.9000e-003**	**0.0000**	**0.7835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.3:

CALEEMOD EXISTING EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (Existing Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Day-Care Center	75.00	Student	0.07	3,000.00	0
General Light Industry	565.76	1000sqft	88.81	565,759.00	0
User Defined Industrial	565.76	User Defined Unit	0.00	565,759.00	0
Other Asphalt Surfaces	209.89	Acre	209.89	9,142,808.40	0
Apartments Low Rise	240.00	Dwelling Unit	16.16	703,929.60	781
Mobile Home Park	194.00	Dwelling Unit	1.30	56,628.00	631
Single Family Housing	515.00	Dwelling Unit	117.18	5,104,360.80	1674
Regional Shopping Center	245.03	1000sqft	27.24	245,029.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Annual

Project Characteristics -

Land Use - Total Existing Area is 460.65 acres. Truck trips generated by the General Light Industrial use will be modeled under the User Defined Industrial land use category.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	500.00	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003

tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	4,239.21	3,000.00
tblLandUse	LandUseSquareFeet	0.00	565,759.00
tblLandUse	LandUseSquareFeet	240,000.00	703,929.60
tblLandUse	LandUseSquareFeet	232,800.00	56,628.00
tblLandUse	LandUseSquareFeet	927,000.00	5,104,360.80
tblLandUse	LotAcreage	0.10	0.07
tblLandUse	LotAcreage	12.99	88.81
tblLandUse	LotAcreage	15.00	16.16
tblLandUse	LotAcreage	24.44	1.30
tblLandUse	LotAcreage	167.21	117.18
tblLandUse	LotAcreage	5.63	27.24
tblLandUse	Population	686.00	781.00
tblLandUse	Population	555.00	631.00
tblLandUse	Population	1,473.00	1,674.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005

tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003
tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43

tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006

tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
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tblVehicleEF	HHD	5,752.37	857.20
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tblVehicleEF	HHD	4.96	0.03
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tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02

tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02

tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003

tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07

tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003

tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004

tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05

tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07

tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
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tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003

tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02

tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
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tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
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tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
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tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
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tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
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tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003

tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
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tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003

tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004

tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57

tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12

tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003

tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00

tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
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tblVehicleEF	MHD	0.03	4.4820e-003
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	1,080.01	777.28
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tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004

tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
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tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003

tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
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tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
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tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
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tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41

tblVehicleEF	MHD	141.89	48.95
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tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
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tblVehicleEF	OBUS	0.19	0.19
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tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09

tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
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tblVehicleEF	OBUS	0.24	0.58
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tblVehicleEF	OBUS	0.29	0.86
tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003

tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06

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tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
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tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
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tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
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tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
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tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
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tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
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tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
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tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
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tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003

tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02

tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	7.16	6.11
tblVehicleTrips	ST_TR	0.39	0.29
tblVehicleTrips	ST_TR	1.32	1.17
tblVehicleTrips	ST_TR	5.00	5.22
tblVehicleTrips	ST_TR	49.97	34.59
tblVehicleTrips	ST_TR	9.91	7.16
tblVehicleTrips	ST_TR	0.00	0.32
tblVehicleTrips	SU_TR	6.07	4.71
tblVehicleTrips	SU_TR	0.37	0.28
tblVehicleTrips	SU_TR	0.68	2.95
tblVehicleTrips	SU_TR	4.36	4.52
tblVehicleTrips	SU_TR	25.24	15.83
tblVehicleTrips	SU_TR	8.62	6.41

tblVehicleTrips	SU_TR	0.00	0.80
tblVehicleTrips	WD_TR	6.59	5.49
tblVehicleTrips	WD_TR	4.38	3.07
tblVehicleTrips	WD_TR	6.97	2.92
tblVehicleTrips	WD_TR	4.99	4.87
tblVehicleTrips	WD_TR	42.70	28.31
tblVehicleTrips	WD_TR	9.52	7.08
tblVehicleTrips	WD_TR	0.00	0.80

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	32.7721	0.3588	15.7975	0.0159		0.9605	0.9605		0.9605	0.9605	100.8019	209.7343	310.5362	0.3159	6.8400e-003	320.4733
Energy	0.2325	2.0424	1.2542	0.0127		0.1606	0.1606		0.1606	0.1606	0.0000	7,285.6841	7,285.6841	0.2499	0.0848	7,317.1902
Mobile	3.1488	28.3100	40.5559	0.1878	18.2954	0.1982	18.4936	4.9072	0.1885	5.0957	0.0000	19,091.5381	19,091.5381	1.1195	0.0000	19,119.5259
Waste						0.0000	0.0000		0.0000	0.0000	377.2567	0.0000	377.2567	22.2952	0.0000	934.6374
Water						0.0000	0.0000		0.0000	0.0000	66.9390	1,054.3894	1,121.3284	6.9188	0.1714	1,345.3597
Total	**36.1534**	**30.7112**	**57.6076**	**0.2164**	**18.2954**	**1.3193**	**19.6147**	**4.9072**	**1.3096**	**6.2168**	**544.9975**	**27,641.3459**	**28,186.3435**	**30.8994**	**0.2630**	**29,037.1866**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	32.7721	0.3588	15.7975	0.0159		0.9605	0.9605		0.9605	0.9605	100.8019	209.7343	310.5362	0.3159	6.8400e-003	320.4733
Energy	0.2325	2.0424	1.2542	0.0127		0.1606	0.1606		0.1606	0.1606	0.0000	7,285.6841	7,285.6841	0.2499	0.0848	7,317.1902
Mobile	3.1488	28.3100	40.5559	0.1878	18.2954	0.1982	18.4936	4.9072	0.1885	5.0957	0.0000	19,091.5381	19,091.5381	1.1195	0.0000	19,119.5259
Waste						0.0000	0.0000		0.0000	0.0000	377.2567	0.0000	377.2567	22.2952	0.0000	934.6374
Water						0.0000	0.0000		0.0000	0.0000	66.9390	1,054.3894	1,121.3284	6.9188	0.1714	1,345.3597
Total	**36.1534**	**30.7112**	**57.6076**	**0.2164**	**18.2954**	**1.3193**	**19.6147**	**4.9072**	**1.3096**	**6.2168**	**544.9975**	**27,641.3459**	**28,186.3435**	**30.8994**	**0.2630**	**29,037.1866**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 209.89

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1488	28.3100	40.5559	0.1878	18.2954	0.1982	18.4936	4.9072	0.1885	5.0957	0.0000	19,091.5381	19,091.5381	1.1195	0.0000	19,119.5259
Unmitigated	3.1488	28.3100	40.5559	0.1878	18.2954	0.1982	18.4936	4.9072	0.1885	5.0957	0.0000	19,091.5381	19,091.5381	1.1195	0.0000	19,119.5259

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,317.74	1,465.20	1130.40	4,483,460	4,483,460
Day-Care Center	230.25	21.94	20.81	248,024	248,024
General Light Industry	1,654.11	663.69	1667.57	6,706,825	6,706,825
Mobile Home Park	944.26	1,012.68	877.37	3,227,415	3,227,415
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	6,937.51	8,475.55	3877.58	14,534,518	14,534,518
Single Family Housing	3,646.51	3,684.83	3302.44	12,311,416	12,311,416
User Defined Industrial	450.34	180.70	454.02	6,003,807	6,003,807
Total	15,180.72	15,504.59	11,330.20	47,515,465	47,515,465

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	28	58	14
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Mobile Home Park	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Day-Care Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
General Light Industry	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
Mobile Home Park	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Single Family Housing	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Airport Gateway Specific Plan (Existing Operations) - San Bernardino-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,984.9102	4,984.9102	0.2058	0.0426	5,002.7439
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,984.9102	4,984.9102	0.2058	0.0426	5,002.7439
NaturalGas Mitigated	0.2325	2.0424	1.2542	0.0127		0.1606	0.1606		0.1606	0.1606	0.0000	2,300.7740	2,300.7740	0.0441	0.0422	2,314.4463
NaturalGas Unmitigated	0.2325	2.0424	1.2542	0.0127		0.1606	0.1606		0.1606	0.1606	0.0000	2,300.7740	2,300.7740	0.0441	0.0422	2,314.4463

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.73788e+006	0.0202	0.1722	0.0733	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	199.4675	199.4675	3.8200e-003	3.6600e-003	200.6529
Day-Care Center	26280	1.4000e-004	1.2900e-003	1.0800e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4024	1.4024	3.0000e-005	3.0000e-005	1.4107
General Light Industry	1.83815e+007	0.0991	0.9011	0.7569	5.4100e-003		0.0685	0.0685		0.0685	0.0685	0.0000	980.9074	980.9074	0.0188	0.0180	986.7364
Mobile Home Park	4.66822e+006	0.0252	0.2151	0.0915	1.3700e-003		0.0174	0.0174		0.0174	0.0174	0.0000	249.1142	249.1142	4.7700e-003	4.5700e-003	250.5946
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	543964	2.9300e-003	0.0267	0.0224	1.6000e-004		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003	0.0000	29.0280	29.0280	5.6000e-004	5.3000e-004	29.2005
Single Family Housing	1.5757e+007	0.0850	0.7261	0.3090	4.6300e-003		0.0587	0.0587		0.0587	0.0587	0.0000	840.8545	840.8545	0.0161	0.0154	845.8512
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2325**	**2.0424**	**1.2542**	**0.0127**		**0.1606**	**0.1606**		**0.1606**	**0.1606**	**0.0000**	**2,300.7740**	**2,300.7740**	**0.0441**	**0.0422**	**2,314.4463**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.73788e+006	0.0202	0.1722	0.0733	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	199.4675	199.4675	3.8200e-003	3.6600e-003	200.6529
Day-Care Center	26280	1.4000e-004	1.2900e-003	1.0800e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4024	1.4024	3.0000e-005	3.0000e-005	1.4107
General Light Industry	1.83815e+007	0.0991	0.9011	0.7569	5.4100e-003		0.0685	0.0685		0.0685	0.0685	0.0000	980.9074	980.9074	0.0188	0.0180	986.7364
Mobile Home Park	4.66822e+006	0.0252	0.2151	0.0915	1.3700e-003		0.0174	0.0174		0.0174	0.0174	0.0000	249.1142	249.1142	4.7700e-003	4.5700e-003	250.5946
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	543964	2.9300e-003	0.0267	0.0224	1.6000e-004		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003	0.0000	29.0280	29.0280	5.6000e-004	5.3000e-004	29.2005
Single Family Housing	1.5757e+007	0.0850	0.7261	0.3090	4.6300e-003		0.0587	0.0587		0.0587	0.0587	0.0000	840.8545	840.8545	0.0161	0.0154	845.8512
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2325**	**2.0424**	**1.2542**	**0.0127**		**0.1606**	**0.1606**		**0.1606**	**0.1606**	**0.0000**	**2,300.7740**	**2,300.7740**	**0.0441**	**0.0422**	**2,314.4463**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.16646e+006	371.6599	0.0153	3.1700e-003	372.9895
Day-Care Center	21900	6.9778	2.9000e-004	6.0000e-005	7.0028
General Light Industry	5.74245e+006	1,829.6688	0.0755	0.0156	1,836.2145
Mobile Home Park	1.13073e+006	360.2733	0.0149	3.0800e-003	361.5621
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.09472e+006	986.0429	0.0407	8.4200e-003	989.5705
Single Family Housing	4.48899e+006	1,430.2875	0.0591	0.0122	1,435.4044
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**4,984.9102**	**0.2058**	**0.0426**	**5,002.7439**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.16646e+006	371.6599	0.0153	3.1700e-003	372.9895
Day-Care Center	21900	6.9778	2.9000e-004	6.0000e-005	7.0028
General Light Industry	5.74245e+006	1,829.6688	0.0755	0.0156	1,836.2145
Mobile Home Park	1.13073e+006	360.2733	0.0149	3.0800e-003	361.5621
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.09472e+006	986.0429	0.0407	8.4200e-003	989.5705
Single Family Housing	4.48899e+006	1,430.2875	0.0591	0.0122	1,435.4044
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**4,984.9102**	**0.2058**	**0.0426**	**5,002.7439**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	32.7721	0.3588	15.7975	0.0159		0.9605	0.9605		0.9605	0.9605	100.8019	209.7343	310.5362	0.3159	6.8400e-003	320.4733
Unmitigated	32.7721	0.3588	15.7975	0.0159		0.9605	0.9605		0.9605	0.9605	100.8019	209.7343	310.5362	0.3159	6.8400e-003	320.4733

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6015					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.7689					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.1084	0.2461	6.0327	0.0154		0.9062	0.9062		0.9062	0.9062	100.8019	193.7066	294.5085	0.3006	6.8400e-003	304.0626
Landscaping	0.2934	0.1127	9.7648	5.2000e-004		0.0544	0.0544		0.0544	0.0544	0.0000	16.0277	16.0277	0.0153	0.0000	16.4107
Total	**32.7721**	**0.3588**	**15.7975**	**0.0159**		**0.9605**	**0.9605**		**0.9605**	**0.9605**	**100.8019**	**209.7343**	**310.5362**	**0.3159**	**6.8400e-003**	**320.4733**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6015					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	26.7689					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.1084	0.2461	6.0327	0.0154		0.9062	0.9062		0.9062	0.9062	100.8019	193.7066	294.5085	0.3006	6.8400e-003	304.0626
Landscaping	0.2934	0.1127	9.7648	5.2000e-004		0.0544	0.0544		0.0544	0.0544	0.0000	16.0277	16.0277	0.0153	0.0000	16.4107
Total	**32.7721**	**0.3588**	**15.7975**	**0.0159**		**0.9605**	**0.9605**		**0.9605**	**0.9605**	**100.8019**	**209.7343**	**310.5362**	**0.3159**	**6.8400e-003**	**320.4733**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,121.3284	6.9188	0.1714	1,345.3597
Unmitigated	1,121.3284	6.9188	0.1714	1,345.3597

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	15.637 / 9.85809	104.7315	0.5137	0.0129	121.4120
Day-Care Center	0.181818 / 0.467532	2.4670	6.0200e-003	1.6000e-004	2.6654
General Light Industry	130.832 / 0	584.2988	4.2856	0.1053	722.8171
Mobile Home Park	12.6399 / 7.96862	84.6580	0.4152	0.0104	98.1414
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	18.15 / 11.1242	120.4366	0.5962	0.0149	139.7938
Single Family Housing	33.5543 / 21.1538	224.7364	1.1022	0.0277	260.5300
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,121.3284**	**6.9188**	**0.1713**	**1,345.3597**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	15.637 / 9.85809	104.7315	0.5137	0.0129	121.4120
Day-Care Center	0.181818 / 0.467532	2.4670	6.0200e-003	1.6000e-004	2.6654
General Light Industry	130.832 / 0	584.2988	4.2856	0.1053	722.8171
Mobile Home Park	12.6399 / 7.96862	84.6580	0.4152	0.0104	98.1414
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	18.15 / 11.1242	120.4366	0.5962	0.0149	139.7938
Single Family Housing	33.5543 / 21.1538	224.7364	1.1022	0.0277	260.5300
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1,121.3284**	**6.9188**	**0.1713**	**1,345.3597**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	377.2567	22.2952	0.0000	934.6374
Unmitigated	377.2567	22.2952	0.0000	934.6374

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	110.4	22.4102	1.3244	0.0000	55.5203
Day-Care Center	13.69	2.7790	0.1642	0.0000	6.8847
General Light Industry	701.54	142.4063	8.4160	0.0000	352.8055
Mobile Home Park	89.24	18.1149	1.0706	0.0000	44.8789
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	257.28	52.2255	3.0864	0.0000	129.3865
Single Family Housing	686.34	139.3208	8.2336	0.0000	345.1614
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**377.2567**	**22.2952**	**0.0000**	**934.6374**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	110.4	22.4102	1.3244	0.0000	55.5203
Day-Care Center	13.69	2.7790	0.1642	0.0000	6.8847
General Light Industry	701.54	142.4063	8.4160	0.0000	352.8055
Mobile Home Park	89.24	18.1149	1.0706	0.0000	44.8789
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	257.28	52.2255	3.0864	0.0000	129.3865
Single Family Housing	686.34	139.3208	8.2336	0.0000	345.1614
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**377.2567**	**22.2952**	**0.0000**	**934.6374**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.4:

CALEEMOD PROPOSED PROJECT EMISSIONS MODEL OUTPUTS

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Airport Gateway Specific Plan (High-Cube Transload Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,352.24	1000sqft	31.04	1,352,244.00	0
User Defined Industrial	1,352.24	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (High-Cube Transload Operations) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	30.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	1.00
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	1,352,240.00	1,352,244.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	1,271.11	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
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tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
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tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
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tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
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tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
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tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
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tblVehicleEF	MDV	0.89	1.86
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tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
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tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
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tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
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tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
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tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005

tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28

tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02

tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.9000e-005	7.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003

tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
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tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
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tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86

tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
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tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02

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tblVehicleEF	OBUS	0.19	0.19
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tblVehicleEF	OBUS	1,100.11	1,108.11
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tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
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tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
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tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003

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tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
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tblVehicleEF	SBUS	0.03	7.6460e-003
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tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
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tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
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tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94

tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

tblVehicleEF	SBUS	0.05	5.0760e-003
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tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
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tblVehicleEF	SBUS	0.31	0.03
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tblVehicleEF	UBUS	4.32	34.94
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tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
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tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
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tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
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tblVehicleEF	UBUS	0.01	0.04
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tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
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tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
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tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.48
tblVehicleTrips	ST_TR	0.00	0.46
tblVehicleTrips	SU_TR	1.68	0.44
tblVehicleTrips	SU_TR	0.00	0.43
tblVehicleTrips	WD_TR	1.68	0.71
tblVehicleTrips	WD_TR	0.00	0.69
tblWater	IndoorWaterUseRate	312,705,500.00	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Energy	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	470.6868	470.6868	0.0171	5.3900e-003	472.7206
Mobile	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368
Offroad	0.1036	0.1769	0.6645	3.5700e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	306.9957	306.9957	8.1000e-003	0.0000	307.1982
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**4.0339**	**33.8724**	**12.4090**	**0.1414**	**6.5922**	**0.2435**	**6.8357**	**1.7962**	**0.2334**	**2.0296**	**1,273.4563**	**16,843.0554**	**18,116.5117**	**92.5525**	**0.9243**	**20,705.7663**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Energy	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	470.6868	470.6868	0.0171	5.3900e-003	472.7206
Mobile	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368
Offroad	0.1036	0.1769	0.6645	3.5700e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	306.9957	306.9957	8.1000e-003	0.0000	307.1982
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**4.0339**	**33.8724**	**12.4090**	**0.1414**	**6.5922**	**0.2435**	**6.8357**	**1.7962**	**0.2334**	**2.0296**	**1,273.4563**	**16,843.0554**	**18,116.5117**	**92.5525**	**0.9243**	**20,705.7663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368
Unmitigated	0.6247	33.6004	11.6305	0.1373	6.5922	0.2296	6.8218	1.7962	0.2196	2.0157	0.0000	13,890.9903	13,890.9903	1.0259	0.0000	13,916.6368

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	965.37	648.27	599.99	3,719,446	3,719,446
User Defined Industrial	927.50	622.84	576.46	12,140,598	12,140,598
Total	1,892.87	1,271.11	1,176.45	15,860,044	15,860,044

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	367.4967	367.4967	0.0152	3.5000e-003	368.9173
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	367.4967	367.4967	0.0152	3.5000e-003	368.9173
NaturalGas Mitigated	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033
NaturalGas Unmitigated	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	1.93371e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0104**	**0.0948**	**0.0796**	**5.7000e-004**		**7.2000e-003**	**7.2000e-003**		**7.2000e-003**	**7.2000e-003**	**0.0000**	**103.1901**	**103.1901**	**1.9800e-003**	**1.8900e-003**	**103.8033**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	1.93371e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1901	103.1901	1.9800e-003	1.8900e-003	103.8033
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0104**	**0.0948**	**0.0796**	**5.7000e-004**		**7.2000e-003**	**7.2000e-003**		**7.2000e-003**	**7.2000e-003**	**0.0000**	**103.1901**	**103.1901**	**1.9800e-003**	**1.8900e-003**	**103.8033**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2.56926e+006	367.4967	0.0152	3.5000e-003	368.9173
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**367.4967**	**0.0152**	**3.5000e-003**	**368.9173**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2.56926e+006	367.4967	0.0152	3.5000e-003	368.9173
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**367.4967**	**0.0152**	**3.5000e-003**	**368.9173**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Unmitigated	3.2952	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1400e-003	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Total	**3.2952**	**3.1000e-004**	**0.0343**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0671**	**0.0671**	**1.7000e-004**	**0.0000**	**0.0714**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1400e-003	3.1000e-004	0.0343	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0671	0.0671	1.7000e-004	0.0000	0.0714
Total	**3.2952**	**3.1000e-004**	**0.0343**	**0.0000**		**1.2000e-004**	**1.2000e-004**		**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0671**	**0.0671**	**1.7000e-004**	**0.0000**	**0.0714**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,544.6895	38.1306	0.9189	3,771.7907
Unmitigated	2,544.6895	38.1306	0.9189	3,771.7907

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	903.0824	53.3706	0.0000	2,237.3485
Unmitigated	903.0824	53.3706	0.0000	2,237.3485

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1036	0.1769	0.6645	3.5700e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	306.9957	306.9957	8.1000e-003	0.0000	307.1982
Total	**0.1036**	**0.1769**	**0.6645**	**3.5700e-003**		**6.5500e-003**	**6.5500e-003**		**6.5500e-003**	**6.5500e-003**	**0.0000**	**306.9957**	**306.9957**	**8.1000e-003**	**0.0000**	**307.1982**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	1,302.16	1000sqft	29.89	1,302,161.00	0
Other Asphalt Surfaces	20,340.59	1000sqft	466.96	20,340,592.00	0
Hotel	150.00	Room	1.72	75,000.00	0
Regional Shopping Center	205.48	1000sqft	4.72	205,483.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Hotel, Shopping, and R&D Operations) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Lot Acreage based on the Total Project Area minus the area of the Industrial uses.

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	T24E	6.47	4.53
tblEnergyUse	T24E	4.58	3.21
tblEnergyUse	T24E	2.20	1.54
tblEnergyUse	T24NG	55.15	38.61
tblEnergyUse	T24NG	1.92	1.34
tblEnergyUse	T24NG	15.36	10.75

tblLandUse	LandUseSquareFeet	1,302,160.00	1,302,161.00
tblLandUse	LandUseSquareFeet	20,340,600.00	20,340,592.00
tblLandUse	LandUseSquareFeet	217,800.00	75,000.00
tblLandUse	LotAcreage	5.00	1.72
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	82.13	61.60
tblSolidWaste	SolidWasteGenerationRate	215.75	161.81
tblSolidWaste	SolidWasteGenerationRate	98.96	74.22
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
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tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
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tblVehicleEF	HHD	3.8000e-005	1.0000e-006
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tblVehicleEF	HHD	1.3600e-004	1.7500e-004
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tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
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tblVehicleEF	HHD	3.7000e-005	1.0000e-006
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tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
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tblVehicleEF	LDA	0.04	0.04
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tblVehicleEF	LDA	0.01	0.02
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tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
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tblVehicleEF	LDT1	46.72	50.24
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tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004

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tblVehicleEF	LDT1	0.03	0.04
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tblVehicleEF	LDT1	0.02	0.09
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tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004

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tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
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tblVehicleEF	LDT1	0.07	0.06
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tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
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tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
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tblVehicleEF	LDT1	0.53	1.46
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tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
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tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004

tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
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tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
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tblVehicleEF	LDT1	0.02	0.09
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tblVehicleEF	LDT2	0.54	1.82
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tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004

tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08

tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06

tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
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tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003

tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17

tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
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tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04

tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10

tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
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tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003

tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
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tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
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tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003

tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003

tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
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tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003

tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003

tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003

tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13

tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22
tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00

tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00

tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04

tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
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tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
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tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89

tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26

tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
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tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	8.6500e-004	2.5700e-004
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tblVehicleEF	MHD	0.02	2.3480e-003
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tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003

tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
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tblVehicleEF	MHD	9.2380e-003	0.04
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tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004

tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
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tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
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tblVehicleEF	OBUS	65.01	70.70

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tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	9.0000e-006	9.4000e-005
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
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tblVehicleEF	OBUS	0.05	0.23

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tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.3000e-005	1.2200e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004

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tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
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tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
tblVehicleEF	SBUS	1,064.97	275.61
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003

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tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83

tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94
tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02

tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003
tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01

tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003

tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004

tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07

tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	11.00	25.00
tblVehicleTrips	PR_TP	54.00	75.00
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	WD_TR	8.17	8.36

tblVehicleTrips	WD_TR	42.70	37.75
tblVehicleTrips	WD_TR	8.11	11.26
tblWater	IndoorWaterUseRate	3,805,015.50	3,044,012.40
tblWater	IndoorWaterUseRate	15,220,421.71	12,176,337.37
tblWater	IndoorWaterUseRate	640,264,190.29	512,211,352.23

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Energy	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	4,170.8291	4,170.8291	0.1250	0.0585	4,191.3743
Mobile	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285
Waste						0.0000	0.0000		0.0000	0.0000	60.4162	0.0000	60.4162	3.5705	0.0000	149.6786
Water						0.0000	0.0000		0.0000	0.0000	167.3298	997.8217	1,165.1514	17.2275	0.4153	1,719.5985
Total	**9.7977**	**21.0939**	**53.8540**	**0.1973**	**22.6397**	**0.2873**	**22.9270**	**6.0575**	**0.2797**	**6.3372**	**227.7460**	**24,071.5048**	**24,299.2508**	**21.9172**	**0.4738**	**24,988.3609**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Energy	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	4,170.8291	4,170.8291	0.1250	0.0585	4,191.3743
Mobile	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285
Waste						0.0000	0.0000		0.0000	0.0000	60.4162	0.0000	60.4162	3.5705	0.0000	149.6786
Water						0.0000	0.0000		0.0000	0.0000	167.3298	997.8217	1,165.1514	17.2275	0.4153	1,719.5985
Total	**9.7977**	**21.0939**	**53.8540**	**0.1973**	**22.6397**	**0.2873**	**22.9270**	**6.0575**	**0.2797**	**6.3372**	**227.7460**	**24,071.5048**	**24,299.2508**	**21.9172**	**0.4738**	**24,988.3609**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 466.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285
Unmitigated	4.1064	19.1354	51.9320	0.1856	22.6397	0.1377	22.7774	6.0575	0.1301	6.1876	0.0000	18,902.3082	18,902.3082	0.9928	0.0000	18,927.1285

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,254.00	1,228.50	892.50	2,860,337	2,860,337
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	7,757.00	9,476.88	4335.69	19,456,499	19,456,499
Research & Development	14,661.94	2,474.11	1445.40	37,275,792	37,275,792
Total	23,672.95	13,179.48	6,673.59	59,592,629	59,592,629

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	75	0	25
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Other Asphalt Surfaces	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Regional Shopping Center	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523
Research & Development	0.571014	0.032844	0.185115	0.100433	0.009020	0.004066	0.018949	0.069354	0.001383	0.001277	0.005285	0.000736	0.000523

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,041.5335	2,041.5335	0.0842	0.0194	2,049.4254
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,041.5335	2,041.5335	0.0842	0.0194	2,049.4254
NaturalGas Mitigated	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	2,129.2955	2,129.2955	0.0408	0.0390	2,141.9488
NaturalGas Unmitigated	0.2152	1.9560	1.6430	0.0117		0.1487	0.1487		0.1487	0.1487	0.0000	2,129.2955	2,129.2955	0.0408	0.0390	2,141.9488

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	3.26025e+006	0.0176	0.1598	0.1343	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	173.9794	173.9794	3.3300e-003	3.1900e-003	175.0132
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	336992	1.8200e-003	0.0165	0.0139	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	17.9832	17.9832	3.4000e-004	3.3000e-004	18.0901
Research & Development	3.63042e+007	0.1958	1.7796	1.4949	0.0107		0.1353	0.1353		0.1353	0.1353	0.0000	1,937.3330	1,937.3330	0.0371	0.0355	1,948.8456
Total		**0.2152**	**1.9560**	**1.6430**	**0.0117**		**0.1487**	**0.1487**		**0.1487**	**0.1487**	**0.0000**	**2,129.2955**	**2,129.2955**	**0.0408**	**0.0390**	**2,141.9489**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	3.26025e+006	0.0176	0.1598	0.1343	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	173.9794	173.9794	3.3300e-003	3.1900e-003	175.0132
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	336992	1.8200e-003	0.0165	0.0139	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	17.9832	17.9832	3.4000e-004	3.3000e-004	18.0901
Research & Development	3.63042e+007	0.1958	1.7796	1.4949	0.0107		0.1353	0.1353		0.1353	0.1353	0.0000	1,937.3330	1,937.3330	0.0371	0.0355	1,948.8456
Total		**0.2152**	**1.9560**	**1.6430**	**0.0117**		**0.1487**	**0.1487**		**0.1487**	**0.1487**	**0.0000**	**2,129.2955**	**2,129.2955**	**0.0408**	**0.0390**	**2,141.9489**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.09275e+006	156.3024	6.4400e-003	1.4900e-003	156.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.96853e+006	281.5699	0.0116	2.6800e-003	282.6584
Research & Development	1.12116e+007	1,603.6613	0.0661	0.0153	1,609.8605
Total		**2,041.5335**	**0.0842**	**0.0194**	**2,049.4254**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.09275e+006	156.3024	6.4400e-003	1.4900e-003	156.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.96853e+006	281.5699	0.0116	2.6800e-003	282.6584
Research & Development	1.12116e+007	1,603.6613	0.0661	0.0153	1,609.8605
Total		**2,041.5335**	**0.0842**	**0.0194**	**2,049.4254**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Unmitigated	5.4762	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0255	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Total	**5.4762**	**2.5100e-003**	**0.2790**	**2.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.9000e-004**	**9.9000e-004**	**0.0000**	**0.5459**	**0.5459**	**1.4100e-003**	**0.0000**	**0.5811**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0255	2.5100e-003	0.2790	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5459	0.5459	1.4100e-003	0.0000	0.5811
Total	**5.4762**	**2.5100e-003**	**0.2790**	**2.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.9000e-004**	**9.9000e-004**	**0.0000**	**0.5459**	**0.5459**	**1.4100e-003**	**0.0000**	**0.5811**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,165.1514	17.2275	0.4153	1,719.5985
Unmitigated	1,165.1514	17.2275	0.4153	1,719.5985

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.04401 / 0.422779	7.3070	0.0995	2.4000e-003	10.5091
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.1763 / 9.32865	41.3655	0.3983	9.7300e-003	54.2214
Research & Development	512.211 / 0	1,116.4790	16.7297	0.4032	1,654.8680
Total		**1,165.1514**	**17.2275**	**0.4153**	**1,719.5985**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.04401 / 0.422779	7.3070	0.0995	2.4000e-003	10.5091
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.1763 / 9.32865	41.3655	0.3983	9.7300e-003	54.2214
Research & Development	512.211 / 0	1,116.4790	16.7297	0.4032	1,654.8680
Total		**1,165.1514**	**17.2275**	**0.4153**	**1,719.5985**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	60.4162	3.5705	0.0000	149.6786
Unmitigated	60.4162	3.5705	0.0000	149.6786

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	61.6	12.5042	0.7390	0.0000	30.9787
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	161.81	32.8460	1.9411	0.0000	81.3745
Research & Development	74.22	15.0660	0.8904	0.0000	37.3254
Total		**60.4162**	**3.5705**	**0.0000**	**149.6786**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	61.6	12.5042	0.7390	0.0000	30.9787
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	161.81	32.8460	1.9411	0.0000	81.3745
Research & Development	74.22	15.0660	0.8904	0.0000	37.3254
Total		**60.4162**	**3.5705**	**0.0000**	**149.6786**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Airport Gateway Specific Plan (Warehouse Operations)

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6,310.47	1000sqft	144.87	6,310,472.00	0
User Defined Industrial	6,310.47	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	315.34	**CH4 Intensity (lb/MWhr)**	0.013	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Annual

Project Characteristics - Intensity Factors adjusted to reflect the RPS for the 2040 Operational Year.

Land Use - Truck trips will be modeled under the User Defined Industrial land use category

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics based on information provided in the Traffic Analysis.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Consumer Products - The emission rate used in this analysis was reduced by 40% to remove the consumer products not associated with the proposed Project's land use.

Area Coating -

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses.

Water And Wastewater - Water use reflects the 20% reduction to reflect CALGreen requirement

Solid Waste - Solid Waste generation adjusted to reflect requirements under AB 939

Operational Off-Road Equipment - Based on SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Busniess Survey Results (2014)

Fleet Mix - Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic Analysis.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	0.00
tblConsumerProducts	ROG_EF	1.98E-05	1.08E-05
tblEnergyUse	LightingElect	1.17	0.82
tblEnergyUse	T24E	0.37	0.26
tblEnergyUse	T24NG	2.00	1.40
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.60
tblFleetMix	LDA	0.57	0.64

tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	9.0200e-003	0.00
tblFleetMix	LHD1	9.0200e-003	0.12
tblFleetMix	LHD2	4.0660e-003	0.00
tblFleetMix	LHD2	4.0660e-003	0.05
tblFleetMix	MCY	5.2850e-003	5.9000e-003
tblFleetMix	MCY	5.2850e-003	0.00
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MH	5.2300e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.23
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	SBUS	7.3600e-004	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblFleetMix	UBUS	1.2770e-003	0.00
tblLandUse	LandUseSquareFeet	6,310,470.00	6,310,472.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Airport Gateway Specific Plan (Warehouse Operations) - San Bernardino-South Coast County, Annual

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	23.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	702.44	315.34
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	5,931.84	4,448.88
tblVehicleEF	HHD	0.84	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.13	6.59
tblVehicleEF	HHD	0.54	0.50
tblVehicleEF	HHD	1.65	3.5250e-003
tblVehicleEF	HHD	6,266.50	862.15
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	17.61	5.34
tblVehicleEF	HHD	1.06	2.31
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.0330e-003	2.0230e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.9450e-003	1.9360e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.57	0.44
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.9580e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	6.1000e-005	1.0000e-006
tblVehicleEF	HHD	2.0330e-003	3.6000e-005
tblVehicleEF	HHD	0.65	0.51
tblVehicleEF	HHD	3.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7500e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.79	0.03
tblVehicleEF	HHD	0.04	0.08
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.54	6.51
tblVehicleEF	HHD	0.55	0.50
tblVehicleEF	HHD	1.54	3.3270e-003

tblVehicleEF	HHD	6,638.80	851.21
tblVehicleEF	HHD	1,393.58	1,052.28
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	18.18	5.08
tblVehicleEF	HHD	1.00	2.18
tblVehicleEF	HHD	20.18	2.43
tblVehicleEF	HHD	1.7140e-003	1.7920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	1.6390e-003	1.7150e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.8210e-003
tblVehicleEF	HHD	4.6520e-003	0.02
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006
tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.53	0.46
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.06	7.8560e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.4000e-005	0.00
tblVehicleEF	HHD	1.1700e-004	2.0000e-006

tblVehicleEF	HHD	2.2520e-003	4.0000e-005
tblVehicleEF	HHD	0.61	0.54
tblVehicleEF	HHD	8.0000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.11
tblVehicleEF	HHD	1.3600e-004	1.7400e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.04	8.7400e-004
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.93	6.58
tblVehicleEF	HHD	0.54	0.22
tblVehicleEF	HHD	1.62	3.4970e-003
tblVehicleEF	HHD	5,752.37	857.20
tblVehicleEF	HHD	1,393.58	998.46
tblVehicleEF	HHD	4.96	0.03
tblVehicleEF	HHD	16.83	5.58
tblVehicleEF	HHD	1.05	2.26
tblVehicleEF	HHD	20.19	2.43
tblVehicleEF	HHD	2.4730e-003	2.2380e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	4.8630e-003	0.02
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	2.3660e-003	2.1420e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8750e-003	8.6470e-003
tblVehicleEF	HHD	4.6520e-003	0.02

tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.61	0.40
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.06	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	HHD	0.05	8.0980e-003
tblVehicleEF	HHD	0.01	9.4330e-003
tblVehicleEF	HHD	7.6000e-005	0.00
tblVehicleEF	HHD	5.7000e-005	1.0000e-006
tblVehicleEF	HHD	2.1410e-003	3.8000e-005
tblVehicleEF	HHD	0.70	0.46
tblVehicleEF	HHD	3.7000e-005	1.0000e-006
tblVehicleEF	HHD	0.10	0.02
tblVehicleEF	HHD	1.4900e-004	1.9100e-004
tblVehicleEF	HHD	0.03	1.0000e-006
tblVehicleEF	LDA	1.3130e-003	7.0000e-004
tblVehicleEF	LDA	7.1700e-004	0.02
tblVehicleEF	LDA	0.26	0.41
tblVehicleEF	LDA	0.35	1.35
tblVehicleEF	LDA	165.17	210.30
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004

tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2930e-003	2.0200e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	9.6720e-003	0.07
tblVehicleEF	LDA	1.6520e-003	1.8640e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.7890e-003	2.9530e-003
tblVehicleEF	LDA	0.02	0.15
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	1.4960e-003	7.9500e-004
tblVehicleEF	LDA	5.9900e-004	0.02
tblVehicleEF	LDA	0.32	0.49
tblVehicleEF	LDA	0.29	1.15
tblVehicleEF	LDA	180.75	227.70
tblVehicleEF	LDA	35.69	40.76
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.10
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004

tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	3.7470e-003	2.2620e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.0790e-003	0.06
tblVehicleEF	LDA	1.8080e-003	2.0190e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	5.4510e-003	3.3090e-003
tblVehicleEF	LDA	0.02	0.14
tblVehicleEF	LDA	8.8450e-003	0.06
tblVehicleEF	LDA	1.2780e-003	6.8600e-004
tblVehicleEF	LDA	7.1500e-004	0.02
tblVehicleEF	LDA	0.25	0.39
tblVehicleEF	LDA	0.34	1.34
tblVehicleEF	LDA	161.49	207.05
tblVehicleEF	LDA	35.69	41.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	0.11
tblVehicleEF	LDA	6.5200e-004	6.0700e-004
tblVehicleEF	LDA	1.0130e-003	7.6600e-004
tblVehicleEF	LDA	6.0000e-004	5.5800e-004
tblVehicleEF	LDA	9.3200e-004	7.0500e-004

tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	3.2070e-003	1.9790e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	9.6370e-003	0.07
tblVehicleEF	LDA	1.6150e-003	1.8360e-003
tblVehicleEF	LDA	3.6200e-004	3.6500e-004
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.6640e-003	2.8920e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDT1	1.9870e-003	8.8600e-004
tblVehicleEF	LDT1	1.4900e-003	0.02
tblVehicleEF	LDT1	0.36	0.44
tblVehicleEF	LDT1	0.54	1.46
tblVehicleEF	LDT1	212.09	250.97
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	4.9240e-003	2.7240e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.1230e-003	2.2240e-003
tblVehicleEF	LDT1	4.7600e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	7.1830e-003	4.0100e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	2.2560e-003	1.0030e-003
tblVehicleEF	LDT1	1.2460e-003	0.02
tblVehicleEF	LDT1	0.44	0.53
tblVehicleEF	LDT1	0.45	1.24
tblVehicleEF	LDT1	231.60	268.69
tblVehicleEF	LDT1	46.72	49.82
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06

tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	5.5920e-003	3.0510e-003
tblVehicleEF	LDT1	0.04	0.21
tblVehicleEF	LDT1	0.02	0.07
tblVehicleEF	LDT1	2.3190e-003	2.3810e-003
tblVehicleEF	LDT1	4.7400e-004	4.4100e-004
tblVehicleEF	LDT1	0.06	0.07
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	8.1570e-003	4.4910e-003
tblVehicleEF	LDT1	0.04	0.22
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.9360e-003	8.6700e-004
tblVehicleEF	LDT1	1.4850e-003	0.02
tblVehicleEF	LDT1	0.34	0.43
tblVehicleEF	LDT1	0.53	1.46
tblVehicleEF	LDT1	207.50	247.66
tblVehicleEF	LDT1	46.72	50.24
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.12
tblVehicleEF	LDT1	8.4000e-004	6.9800e-004
tblVehicleEF	LDT1	1.3200e-003	8.9800e-004
tblVehicleEF	LDT1	7.7300e-004	6.4200e-004
tblVehicleEF	LDT1	1.2140e-003	8.2600e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03

tblVehicleEF	LDT1	4.7990e-003	2.6680e-003
tblVehicleEF	LDT1	0.05	0.25
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	2.0770e-003	2.1950e-003
tblVehicleEF	LDT1	4.7500e-004	4.4500e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	7.0000e-003	3.9270e-003
tblVehicleEF	LDT1	0.05	0.26
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT2	2.0400e-003	1.0700e-003
tblVehicleEF	LDT2	1.3470e-003	0.03
tblVehicleEF	LDT2	0.40	0.50
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	242.05	249.20
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	5.0770e-003	3.4640e-003

tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.10
tblVehicleEF	LDT2	2.4220e-003	2.2090e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.3980e-003	5.0430e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	2.3180e-003	1.2110e-003
tblVehicleEF	LDT2	1.1800e-003	0.02
tblVehicleEF	LDT2	0.49	0.60
tblVehicleEF	LDT2	0.48	1.54
tblVehicleEF	LDT2	264.32	265.17
tblVehicleEF	LDT2	52.72	49.48
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	5.7650e-003	3.8610e-003
tblVehicleEF	LDT2	0.03	0.20

tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	2.6460e-003	2.3510e-003
tblVehicleEF	LDT2	5.3400e-004	4.3800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	8.4020e-003	5.6280e-003
tblVehicleEF	LDT2	0.03	0.20
tblVehicleEF	LDT2	0.02	0.09
tblVehicleEF	LDT2	1.9880e-003	1.0480e-003
tblVehicleEF	LDT2	1.3430e-003	0.03
tblVehicleEF	LDT2	0.38	0.48
tblVehicleEF	LDT2	0.54	1.82
tblVehicleEF	LDT2	236.82	246.22
tblVehicleEF	LDT2	52.72	50.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.12
tblVehicleEF	LDT2	7.8200e-004	6.8900e-004
tblVehicleEF	LDT2	1.1890e-003	8.0900e-004
tblVehicleEF	LDT2	7.1900e-004	6.3500e-004
tblVehicleEF	LDT2	1.0930e-003	7.4400e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	4.9480e-003	3.3960e-003
tblVehicleEF	LDT2	0.04	0.23
tblVehicleEF	LDT2	0.02	0.10

tblVehicleEF	LDT2	2.3700e-003	2.1830e-003
tblVehicleEF	LDT2	5.3500e-004	4.4300e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	7.2100e-003	4.9430e-003
tblVehicleEF	LDT2	0.04	0.24
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LHD1	2.9440e-003	3.4150e-003
tblVehicleEF	LHD1	1.8710e-003	1.6430e-003
tblVehicleEF	LHD1	5.1310e-003	5.8040e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.02	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.51
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.30	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003

tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.3480e-003	1.2630e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.4100e-004	8.2400e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4230e-003
tblVehicleEF	LHD1	1.8860e-003	1.6580e-003
tblVehicleEF	LHD1	4.8800e-003	5.5810e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.96	0.69
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.44

tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.28	0.11
tblVehicleEF	LHD1	0.36	0.15
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.09	0.16
tblVehicleEF	LHD1	0.07	0.02
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4100e-004	8.4000e-005
tblVehicleEF	LHD1	2.5700e-003	2.2570e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.5050e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.09	0.16

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	2.9440e-003	3.4160e-003
tblVehicleEF	LHD1	1.8730e-003	1.6450e-003
tblVehicleEF	LHD1	5.0830e-003	5.7800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	1.00	0.73
tblVehicleEF	LHD1	8.90	7.68
tblVehicleEF	LHD1	538.77	527.34
tblVehicleEF	LHD1	22.40	8.50
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.29	0.12
tblVehicleEF	LHD1	0.38	0.16
tblVehicleEF	LHD1	6.9400e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	5.2010e-003	3.9070e-003
tblVehicleEF	LHD1	4.6800e-004	1.7600e-004
tblVehicleEF	LHD1	6.6400e-004	9.6900e-004
tblVehicleEF	LHD1	2.6510e-003	2.5040e-003
tblVehicleEF	LHD1	4.9620e-003	3.7150e-003
tblVehicleEF	LHD1	4.3000e-004	1.6200e-004
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	0.10	0.18

tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	8.8000e-005	7.4000e-005
tblVehicleEF	LHD1	5.2510e-003	5.1320e-003
tblVehicleEF	LHD1	2.4200e-004	8.4000e-005
tblVehicleEF	LHD1	1.2380e-003	1.1410e-003
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.1100e-004	8.1600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.18
tblVehicleEF	LHD1	0.08	0.03
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4850e-003	1.9130e-003
tblVehicleEF	LHD2	2.0670e-003	3.2880e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.81	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.21
tblVehicleEF	LHD2	0.19	0.10
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005

tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	6.0700e-004	7.4500e-004
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.7600e-004	4.9500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	2.1660e-003	2.2060e-003
tblVehicleEF	LHD2	1.4950e-003	1.9210e-003
tblVehicleEF	LHD2	2.0490e-003	3.1620e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.76	0.40

tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.02
tblVehicleEF	LHD2	21.02	5.69
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.6000e-005
tblVehicleEF	LHD2	1.1630e-003	1.3300e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	7.9300e-004	8.9800e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.09
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	2.1660e-003	2.2010e-003
tblVehicleEF	LHD2	1.4870e-003	1.9140e-003
tblVehicleEF	LHD2	2.0640e-003	3.2750e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	0.80	0.42
tblVehicleEF	LHD2	13.33	12.19
tblVehicleEF	LHD2	563.36	527.01
tblVehicleEF	LHD2	21.02	5.72
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.06	0.20
tblVehicleEF	LHD2	0.19	0.09
tblVehicleEF	LHD2	8.7000e-004	1.4970e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.9000e-003	9.7540e-003
tblVehicleEF	LHD2	3.8100e-004	9.8000e-005
tblVehicleEF	LHD2	8.3200e-004	1.4330e-003
tblVehicleEF	LHD2	2.7110e-003	2.7190e-003
tblVehicleEF	LHD2	4.6760e-003	9.3200e-003
tblVehicleEF	LHD2	3.5000e-004	9.0000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	1.3000e-004	1.1600e-004
tblVehicleEF	LHD2	5.4730e-003	5.0780e-003
tblVehicleEF	LHD2	2.2300e-004	5.7000e-005
tblVehicleEF	LHD2	5.7300e-004	6.6700e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.6400e-004	4.9000e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.03	0.10
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.49	17.15
tblVehicleEF	MCY	10.18	8.86
tblVehicleEF	MCY	172.24	213.75
tblVehicleEF	MCY	41.83	57.16
tblVehicleEF	MCY	1.13	1.11
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.41	1.43

tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.09	2.27
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.02	1.75
tblVehicleEF	MCY	2.0710e-003	2.1150e-003
tblVehicleEF	MCY	6.4400e-004	5.6600e-004
tblVehicleEF	MCY	1.41	1.43
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	0.74	0.74
tblVehicleEF	MCY	2.62	2.84
tblVehicleEF	MCY	0.33	1.22
tblVehicleEF	MCY	2.20	1.90
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.64	17.23
tblVehicleEF	MCY	9.04	7.98
tblVehicleEF	MCY	172.24	213.77
tblVehicleEF	MCY	41.83	55.10
tblVehicleEF	MCY	0.96	0.96
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06

tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.06	2.24
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.76	1.55
tblVehicleEF	MCY	2.0720e-003	2.1150e-003
tblVehicleEF	MCY	6.1700e-004	5.4500e-004
tblVehicleEF	MCY	3.03	2.78
tblVehicleEF	MCY	1.15	1.06
tblVehicleEF	MCY	1.96	1.69
tblVehicleEF	MCY	2.59	2.81
tblVehicleEF	MCY	0.33	1.20
tblVehicleEF	MCY	1.91	1.69
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.14	0.23
tblVehicleEF	MCY	16.81	16.75
tblVehicleEF	MCY	9.85	8.73
tblVehicleEF	MCY	172.24	213.06
tblVehicleEF	MCY	41.83	56.89
tblVehicleEF	MCY	1.09	1.08
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.2150e-003	2.4300e-003
tblVehicleEF	MCY	3.3090e-003	2.9180e-003
tblVehicleEF	MCY	2.0660e-003	2.2650e-003
tblVehicleEF	MCY	3.0880e-003	2.7230e-003
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70

tblVehicleEF	MCY	2.07	2.25
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	1.96	1.73
tblVehicleEF	MCY	2.0590e-003	2.1080e-003
tblVehicleEF	MCY	6.3700e-004	5.6300e-004
tblVehicleEF	MCY	1.64	1.57
tblVehicleEF	MCY	0.95	0.95
tblVehicleEF	MCY	0.65	0.70
tblVehicleEF	MCY	2.59	2.82
tblVehicleEF	MCY	0.39	1.43
tblVehicleEF	MCY	2.14	1.88
tblVehicleEF	MDV	3.1210e-003	1.1650e-003
tblVehicleEF	MDV	3.4770e-003	0.03
tblVehicleEF	MDV	0.52	0.51
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	324.60	302.34
tblVehicleEF	MDV	70.23	60.00
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.14
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	7.8470e-003	3.9200e-003

tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.11
tblVehicleEF	MDV	3.2450e-003	2.6840e-003
tblVehicleEF	MDV	7.1700e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	5.7020e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MDV	3.5400e-003	1.3180e-003
tblVehicleEF	MDV	2.9570e-003	0.02
tblVehicleEF	MDV	0.63	0.61
tblVehicleEF	MDV	0.77	1.57
tblVehicleEF	MDV	353.43	318.14
tblVehicleEF	MDV	70.23	59.45
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	8.8850e-003	4.3670e-003
tblVehicleEF	MDV	0.06	0.22

tblVehicleEF	MDV	0.04	0.10
tblVehicleEF	MDV	3.5340e-003	2.8240e-003
tblVehicleEF	MDV	7.1400e-004	5.2700e-004
tblVehicleEF	MDV	0.12	0.13
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.01	6.3610e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.04	0.11
tblVehicleEF	MDV	3.0420e-003	1.1410e-003
tblVehicleEF	MDV	3.4670e-003	0.03
tblVehicleEF	MDV	0.49	0.49
tblVehicleEF	MDV	0.89	1.86
tblVehicleEF	MDV	317.88	299.40
tblVehicleEF	MDV	70.23	60.01
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.06	0.13
tblVehicleEF	MDV	8.6800e-004	6.8600e-004
tblVehicleEF	MDV	1.3230e-003	8.3700e-004
tblVehicleEF	MDV	7.9900e-004	6.3300e-004
tblVehicleEF	MDV	1.2170e-003	7.7000e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	7.6530e-003	3.8430e-003
tblVehicleEF	MDV	0.07	0.26
tblVehicleEF	MDV	0.05	0.11

tblVehicleEF	MDV	3.1770e-003	2.6580e-003
tblVehicleEF	MDV	7.1600e-004	5.3200e-004
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	5.5900e-003
tblVehicleEF	MDV	0.07	0.27
tblVehicleEF	MDV	0.05	0.12
tblVehicleEF	MH	3.6150e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.10	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.56	2.47
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1200e-004	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3580e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	3.6990e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	2.84	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.52	2.33
tblVehicleEF	MH	0.51	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06

tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.18	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.0700e-004	0.00
tblVehicleEF	MH	0.80	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.42	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.3600e-003	0.00
tblVehicleEF	MH	0.20	0.00
tblVehicleEF	MH	3.6230e-003	2.5730e-003
tblVehicleEF	MH	0.01	0.00
tblVehicleEF	MH	0.18	0.19
tblVehicleEF	MH	3.08	0.00
tblVehicleEF	MH	1,018.40	823.95
tblVehicleEF	MH	55.77	0.00
tblVehicleEF	MH	0.54	2.43
tblVehicleEF	MH	0.52	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8020e-003	0.04
tblVehicleEF	MH	8.5600e-004	0.00
tblVehicleEF	MH	3.2210e-003	4.0000e-003
tblVehicleEF	MH	7.4330e-003	0.04
tblVehicleEF	MH	7.8700e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00

tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.01	7.7890e-003
tblVehicleEF	MH	6.1100e-004	0.00
tblVehicleEF	MH	0.40	0.00
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.02	0.06
tblVehicleEF	MH	3.5950e-003	0.00
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MHD	0.02	2.2030e-003
tblVehicleEF	MHD	1.5950e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4820e-003
tblVehicleEF	MHD	0.29	0.29
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.34	0.41
tblVehicleEF	MHD	154.54	48.25
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.40	0.26
tblVehicleEF	MHD	0.54	1.08
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	3.4000e-005	7.1000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	3.2000e-005	6.8000e-005

tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	7.5370e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.4840e-003	4.5700e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.6000e-004	2.1300e-004
tblVehicleEF	MHD	0.02	7.2260e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.1200e-004	1.4000e-004
tblVehicleEF	MHD	0.03	8.8140e-003
tblVehicleEF	MHD	8.4460e-003	0.03
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	MHD	0.02	2.1060e-003
tblVehicleEF	MHD	1.6050e-003	5.2200e-004
tblVehicleEF	MHD	0.03	4.3120e-003
tblVehicleEF	MHD	0.21	0.26
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.19	0.39
tblVehicleEF	MHD	163.70	47.73
tblVehicleEF	MHD	1,080.01	777.28

tblVehicleEF	MHD	47.30	4.28
tblVehicleEF	MHD	0.41	0.25
tblVehicleEF	MHD	0.51	1.02
tblVehicleEF	MHD	12.00	1.89
tblVehicleEF	MHD	2.9000e-005	6.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
tblVehicleEF	MHD	6.7400e-004	6.1000e-005
tblVehicleEF	MHD	2.7000e-005	6.0000e-005
tblVehicleEF	MHD	2.5200e-003	6.5310e-003
tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	7.5540e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.15	0.02
tblVehicleEF	MHD	1.5710e-003	4.5200e-004
tblVehicleEF	MHD	0.01	7.3870e-003
tblVehicleEF	MHD	5.1100e-004	4.2000e-005
tblVehicleEF	MHD	1.2630e-003	3.8100e-004
tblVehicleEF	MHD	0.02	7.8580e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.6500e-004	2.5700e-004
tblVehicleEF	MHD	0.03	8.8390e-003
tblVehicleEF	MHD	8.4700e-003	0.03
tblVehicleEF	MHD	0.16	0.02

tblVehicleEF	MHD	0.02	2.3480e-003
tblVehicleEF	MHD	1.5960e-003	5.1600e-004
tblVehicleEF	MHD	0.03	4.4460e-003
tblVehicleEF	MHD	0.41	0.33
tblVehicleEF	MHD	0.16	0.08
tblVehicleEF	MHD	2.30	0.41
tblVehicleEF	MHD	141.89	48.95
tblVehicleEF	MHD	1,080.01	777.28
tblVehicleEF	MHD	47.30	4.32
tblVehicleEF	MHD	0.38	0.28
tblVehicleEF	MHD	0.53	1.06
tblVehicleEF	MHD	12.01	1.89
tblVehicleEF	MHD	4.1000e-005	8.2000e-005
tblVehicleEF	MHD	2.6380e-003	6.8300e-003
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tblVehicleEF	MHD	6.2000e-004	5.6000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	7.5380e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.16	0.02
tblVehicleEF	MHD	1.3650e-003	4.6400e-004
tblVehicleEF	MHD	0.01	7.3870e-003

tblVehicleEF	MHD	5.1400e-004	4.3000e-005
tblVehicleEF	MHD	6.1700e-004	1.9300e-004
tblVehicleEF	MHD	0.02	7.6280e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9800e-004	1.3900e-004
tblVehicleEF	MHD	0.03	8.8150e-003
tblVehicleEF	MHD	9.2380e-003	0.04
tblVehicleEF	MHD	0.17	0.02
tblVehicleEF	OBUS	0.01	8.4190e-003
tblVehicleEF	OBUS	3.1180e-003	1.7930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.96	1.75
tblVehicleEF	OBUS	62.30	71.51
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.66
tblVehicleEF	OBUS	0.12	0.33
tblVehicleEF	OBUS	0.31	0.92
tblVehicleEF	OBUS	1.61	0.82
tblVehicleEF	OBUS	1.1000e-005	1.1000e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
tblVehicleEF	OBUS	1.0000e-005	1.0600e-004
tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	6.0700e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5000e-004	1.5500e-004
tblVehicleEF	OBUS	1.7340e-003	1.8920e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	8.1900e-004	9.5500e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.5090e-003
tblVehicleEF	OBUS	3.1850e-003	1.8320e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.20	0.19
tblVehicleEF	OBUS	3.63	1.63
tblVehicleEF	OBUS	65.01	70.70
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.46
tblVehicleEF	OBUS	0.13	0.31
tblVehicleEF	OBUS	0.29	0.86

tblVehicleEF	OBUS	1.58	0.81
tblVehicleEF	OBUS	9.0000e-006	9.8000e-005
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
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tblVehicleEF	OBUS	1.8650e-003	6.4660e-003
tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.25	0.08
tblVehicleEF	OBUS	6.3200e-004	6.7300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4400e-004	1.5300e-004
tblVehicleEF	OBUS	3.3210e-003	3.3600e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	1.7820e-003	1.7640e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.23
tblVehicleEF	OBUS	0.27	0.09
tblVehicleEF	OBUS	0.01	8.3290e-003
tblVehicleEF	OBUS	3.1250e-003	1.7940e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.25	0.59
tblVehicleEF	OBUS	0.19	0.19
tblVehicleEF	OBUS	3.93	1.75
tblVehicleEF	OBUS	58.56	72.63
tblVehicleEF	OBUS	1,100.11	1,108.11
tblVehicleEF	OBUS	68.00	15.67
tblVehicleEF	OBUS	0.12	0.35
tblVehicleEF	OBUS	0.31	0.90
tblVehicleEF	OBUS	1.60	0.81
tblVehicleEF	OBUS	1.3000e-005	1.2700e-004
tblVehicleEF	OBUS	1.9770e-003	6.7780e-003
tblVehicleEF	OBUS	1.0780e-003	2.1400e-004
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tblVehicleEF	OBUS	9.9100e-004	1.9600e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	5.7100e-004	6.9100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.4900e-004	1.5500e-004
tblVehicleEF	OBUS	1.6680e-003	1.7380e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.0100e-004	9.5800e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.25
tblVehicleEF	OBUS	0.28	0.10
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4560e-003	1.2440e-003
tblVehicleEF	SBUS	0.05	4.9270e-003
tblVehicleEF	SBUS	7.12	2.85
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.04	0.63
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tblVehicleEF	SBUS	48.56	3.84
tblVehicleEF	SBUS	2.38	1.29
tblVehicleEF	SBUS	0.94	1.42
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	1.8400e-004	3.3800e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.7600e-004	3.2300e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003

tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	0.01	2.6280e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.7300e-004	3.8000e-005
tblVehicleEF	SBUS	4.3930e-003	1.1600e-003
tblVehicleEF	SBUS	0.03	7.6460e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	2.1030e-003	5.9400e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.5090e-003	1.2660e-003
tblVehicleEF	SBUS	0.04	4.1270e-003
tblVehicleEF	SBUS	7.08	2.84
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	3.44	0.46
tblVehicleEF	SBUS	1,114.01	272.77
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.55
tblVehicleEF	SBUS	2.46	1.23
tblVehicleEF	SBUS	0.88	1.33
tblVehicleEF	SBUS	12.68	1.94

tblVehicleEF	SBUS	1.5500e-004	2.9900e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	1.4800e-004	2.8600e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	0.87	0.28
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.23	0.02
tblVehicleEF	SBUS	0.01	2.6010e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003
tblVehicleEF	SBUS	5.4600e-004	3.5000e-005
tblVehicleEF	SBUS	8.3590e-003	2.0590e-003
tblVehicleEF	SBUS	0.03	7.8890e-003
tblVehicleEF	SBUS	1.26	0.40
tblVehicleEF	SBUS	4.4810e-003	1.0920e-003
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.25	0.03
tblVehicleEF	SBUS	0.84	0.06
tblVehicleEF	SBUS	3.4580e-003	1.2430e-003

tblVehicleEF	SBUS	0.05	5.0760e-003
tblVehicleEF	SBUS	7.18	2.87
tblVehicleEF	SBUS	0.27	0.16
tblVehicleEF	SBUS	5.07	0.66
tblVehicleEF	SBUS	997.24	279.53
tblVehicleEF	SBUS	1,030.56	868.83
tblVehicleEF	SBUS	48.56	3.89
tblVehicleEF	SBUS	2.28	1.37
tblVehicleEF	SBUS	0.92	1.40
tblVehicleEF	SBUS	12.71	1.94
tblVehicleEF	SBUS	2.2300e-004	3.9200e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.7180e-003	4.0330e-003
tblVehicleEF	SBUS	1.0470e-003	6.6000e-005
tblVehicleEF	SBUS	2.1400e-004	3.7500e-004
tblVehicleEF	SBUS	2.6570e-003	2.7290e-003
tblVehicleEF	SBUS	2.5800e-003	3.8430e-003
tblVehicleEF	SBUS	9.6300e-004	6.0000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	0.87	0.27
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.28	0.03
tblVehicleEF	SBUS	9.7650e-003	2.6650e-003
tblVehicleEF	SBUS	9.9290e-003	8.2970e-003

tblVehicleEF	SBUS	5.7400e-004	3.8000e-005
tblVehicleEF	SBUS	4.1430e-003	1.0590e-003
tblVehicleEF	SBUS	0.03	7.7880e-003
tblVehicleEF	SBUS	1.26	0.39
tblVehicleEF	SBUS	2.0550e-003	5.9600e-004
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.2480e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.96	0.90
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.72
tblVehicleEF	UBUS	0.92	0.35
tblVehicleEF	UBUS	11.84	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004

tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.77	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6040e-003	9.6000e-005
tblVehicleEF	UBUS	4.7770e-003	1.9390e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.9750e-003	8.7900e-004
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tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.85	0.03
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.05	6.5770e-003
tblVehicleEF	UBUS	4.33	34.94
tblVehicleEF	UBUS	6.59	0.77
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.50
tblVehicleEF	UBUS	0.85	0.35
tblVehicleEF	UBUS	11.77	0.09
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004

tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.69	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.5790e-003	9.4000e-005
tblVehicleEF	UBUS	8.8620e-003	3.5260e-003
tblVehicleEF	UBUS	0.07	0.01
tblVehicleEF	UBUS	6.4780e-003	1.7200e-003
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	0.93	4.48
tblVehicleEF	UBUS	0.06	7.3070e-003
tblVehicleEF	UBUS	4.32	34.94
tblVehicleEF	UBUS	7.73	0.92
tblVehicleEF	UBUS	1,696.91	1,641.20
tblVehicleEF	UBUS	145.56	9.74
tblVehicleEF	UBUS	0.90	0.35
tblVehicleEF	UBUS	11.83	0.10
tblVehicleEF	UBUS	0.49	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	5.2690e-003	2.7210e-003
tblVehicleEF	UBUS	1.6820e-003	1.7800e-004
tblVehicleEF	UBUS	0.21	0.03

tblVehicleEF	UBUS	3.0000e-003	6.6220e-003
tblVehicleEF	UBUS	4.9980e-003	2.5880e-003
tblVehicleEF	UBUS	1.5460e-003	1.6400e-004
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.76	0.02
tblVehicleEF	UBUS	8.0980e-003	2.4150e-003
tblVehicleEF	UBUS	1.6000e-003	9.6000e-005
tblVehicleEF	UBUS	4.5560e-003	1.8970e-003
tblVehicleEF	UBUS	0.06	0.01
tblVehicleEF	UBUS	2.8890e-003	8.8400e-004
tblVehicleEF	UBUS	1.01	4.57
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	0.83	0.03
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	ST_TR	0.00	0.03
tblVehicleTrips	SU_TR	1.68	0.05
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	1.68	1.38
tblVehicleTrips	WD_TR	0.00	0.36
tblWater	IndoorWaterUseRate	1,459,296,187.50	1,167,436,950.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Energy	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	2,196.5384	2,196.5384	0.0799	0.0251	2,206.0296
Mobile	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936
Offroad	0.4766	0.8135	3.0569	0.0164		0.0301	0.0301		0.0301	0.0301	0.0000	1,412.1800	1,412.1800	0.0373	0.0000	1,413.1119
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**18.0871**	**49.4856**	**35.8480**	**0.3017**	**20.7043**	**0.4217**	**21.1260**	**5.6731**	**0.4053**	**6.0784**	**1,273.4563**	**34,007.8760**	**35,281.3323**	**92.9578**	**0.9441**	**37,886.6077**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Energy	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	2,196.5384	2,196.5384	0.0799	0.0251	2,206.0296
Mobile	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936
Offroad	0.4766	0.8135	3.0569	0.0164		0.0301	0.0301		0.0301	0.0301	0.0000	1,412.1800	1,412.1800	0.0373	0.0000	1,413.1119
Waste						0.0000	0.0000		0.0000	0.0000	903.0824	0.0000	903.0824	53.3706	0.0000	2,237.3485
Water						0.0000	0.0000		0.0000	0.0000	370.3739	2,174.3156	2,544.6895	38.1306	0.9189	3,771.7907
Total	**18.0871**	**49.4856**	**35.8480**	**0.3017**	**20.7043**	**0.4217**	**21.1260**	**5.6731**	**0.4053**	**6.0784**	**1,273.4563**	**34,007.8760**	**35,281.3323**	**92.9578**	**0.9441**	**37,886.6077**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	5/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936
Unmitigated	2.1844	48.2283	32.2595	0.2826	20.7043	0.3573	21.0616	5.6731	0.3410	6.0140	0.0000	28,224.5288	28,224.5288	1.3386	0.0000	28,257.9936

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	8,736.85	753.47	301.01	27,391,071	27,391,071
User Defined Industrial	2,243.37	193.10	77.62	23,894,173	23,894,173
Total	10,980.22	946.57	378.63	51,285,244	51,285,244

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
User Defined Industrial	40.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.638200	0.036700	0.206900	0.112300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005900	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.116800	0.052600	0.226900	0.603700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,714.9847	1,714.9847	0.0707	0.0163	1,721.6143
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,714.9847	1,714.9847	0.0707	0.0163	1,721.6143
NaturalGas Mitigated	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153
NaturalGas Unmitigated	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	9.02397e+006	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0487**	**0.4424**	**0.3716**	**2.6500e-003**		**0.0336**	**0.0336**		**0.0336**	**0.0336**	**0.0000**	**481.5537**	**481.5537**	**9.2300e-003**	**8.8300e-003**	**484.4153**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	9.02397e+006	0.0487	0.4424	0.3716	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.5537	481.5537	9.2300e-003	8.8300e-003	484.4153
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0487**	**0.4424**	**0.3716**	**2.6500e-003**		**0.0336**	**0.0336**		**0.0336**	**0.0336**	**0.0000**	**481.5537**	**481.5537**	**9.2300e-003**	**8.8300e-003**	**484.4153**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.19899e+007	1,714.9847	0.0707	0.0163	1,721.6143
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**1,714.9847**	**0.0707**	**0.0163**	**1,721.6143**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.19899e+007	1,714.9847	0.0707	0.0163	1,721.6143
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**1,714.9847**	**0.0707**	**0.0163**	**1,721.6143**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Unmitigated	15.3775	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.9249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.4379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0146	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Total	**15.3775**	**1.4400e-003**	**0.1600**	**1.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**0.3132**	**0.3132**	**8.1000e-004**	**0.0000**	**0.3334**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.9249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.4379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0146	1.4400e-003	0.1600	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.3132	0.3132	8.1000e-004	0.0000	0.3334
Total	**15.3775**	**1.4400e-003**	**0.1600**	**1.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**0.3132**	**0.3132**	**8.1000e-004**	**0.0000**	**0.3334**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,544.6895	38.1306	0.9189	3,771.7907
Unmitigated	2,544.6895	38.1306	0.9189	3,771.7907

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1167.44 / 0	2,544.6895	38.1306	0.9189	3,771.7907
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,544.6895**	**38.1306**	**0.9189**	**3,771.7907**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	903.0824	53.3706	0.0000	2,237.3485
Unmitigated	903.0824	53.3706	0.0000	2,237.3485

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	4448.88	903.0824	53.3706	0.0000	2,237.3485
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**903.0824**	**53.3706**	**0.0000**	**2,237.3485**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	23	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.4766	0.8135	3.0569	0.0164		0.0301	0.0301		0.0301	0.0301	0.0000	1,412.1800	1,412.1800	0.0373	0.0000	1,413.1119
Total	**0.4766**	**0.8135**	**3.0569**	**0.0164**		**0.0301**	**0.0301**		**0.0301**	**0.0301**	**0.0000**	**1,412.1800**	**1,412.1800**	**0.0373**	**0.0000**	**1,413.1119**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

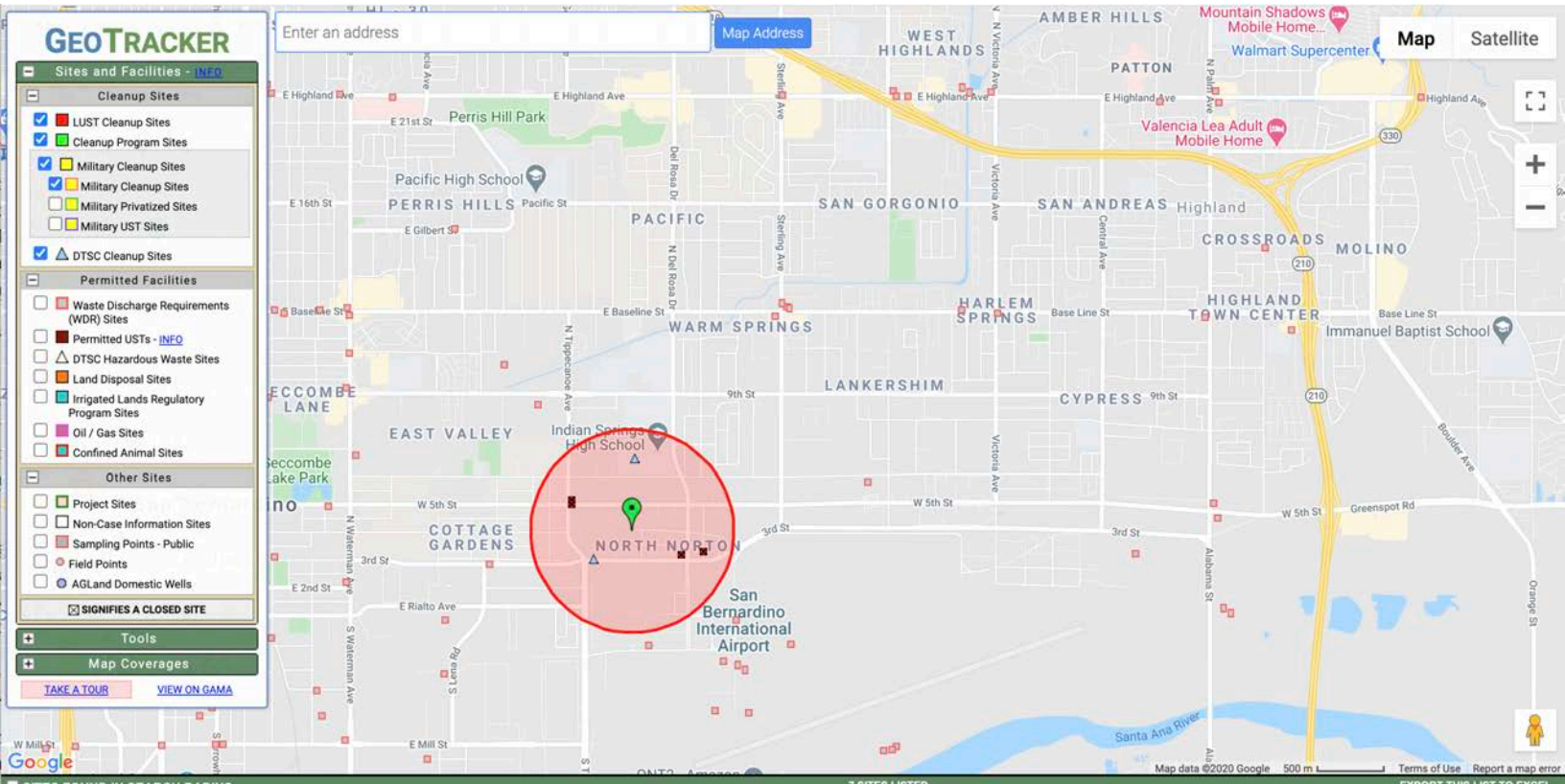
User Defined Equipment

Equipment Type	Number

11.0 Vegetation

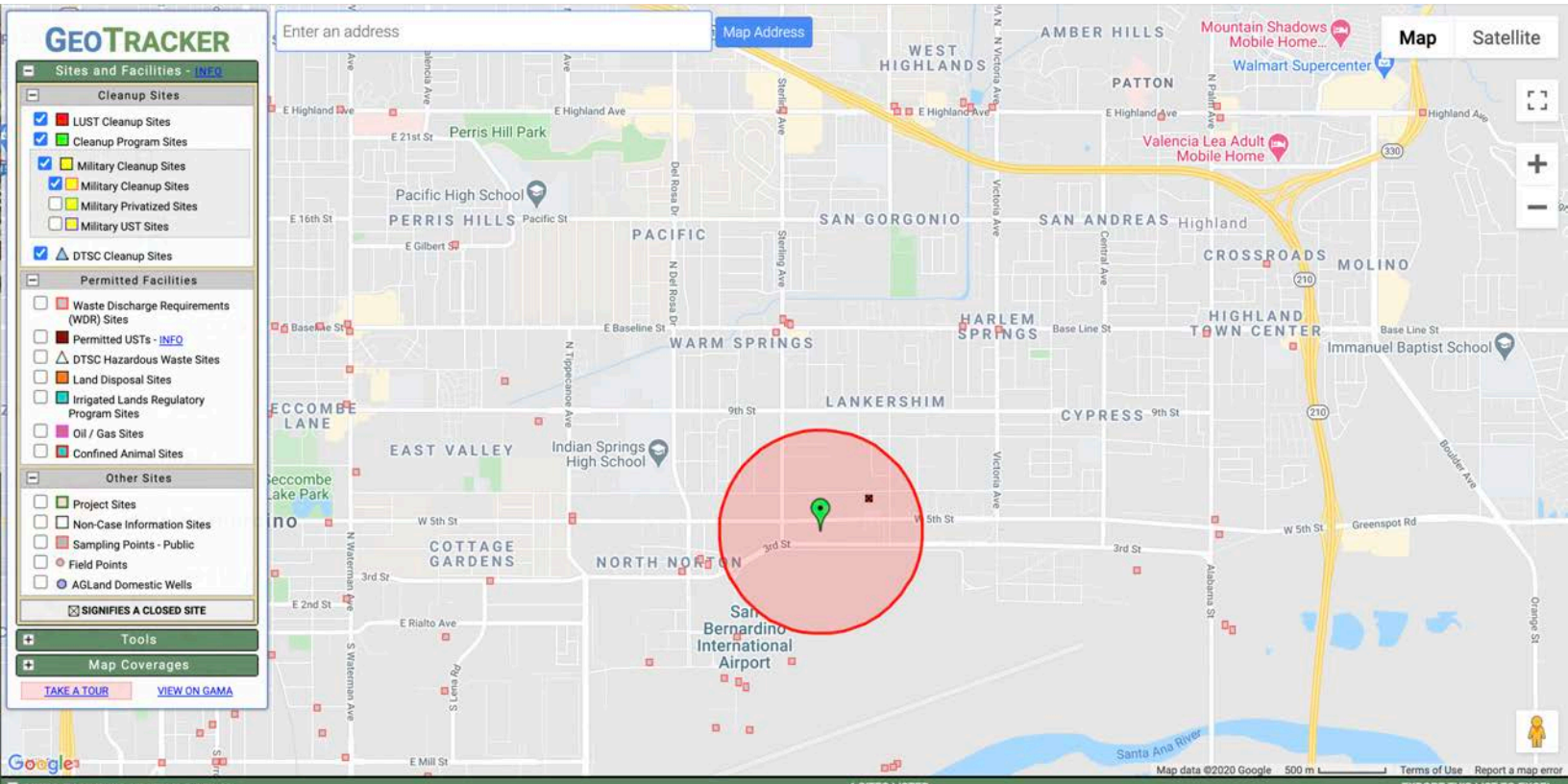
APPENDIX 7

GeoTracker



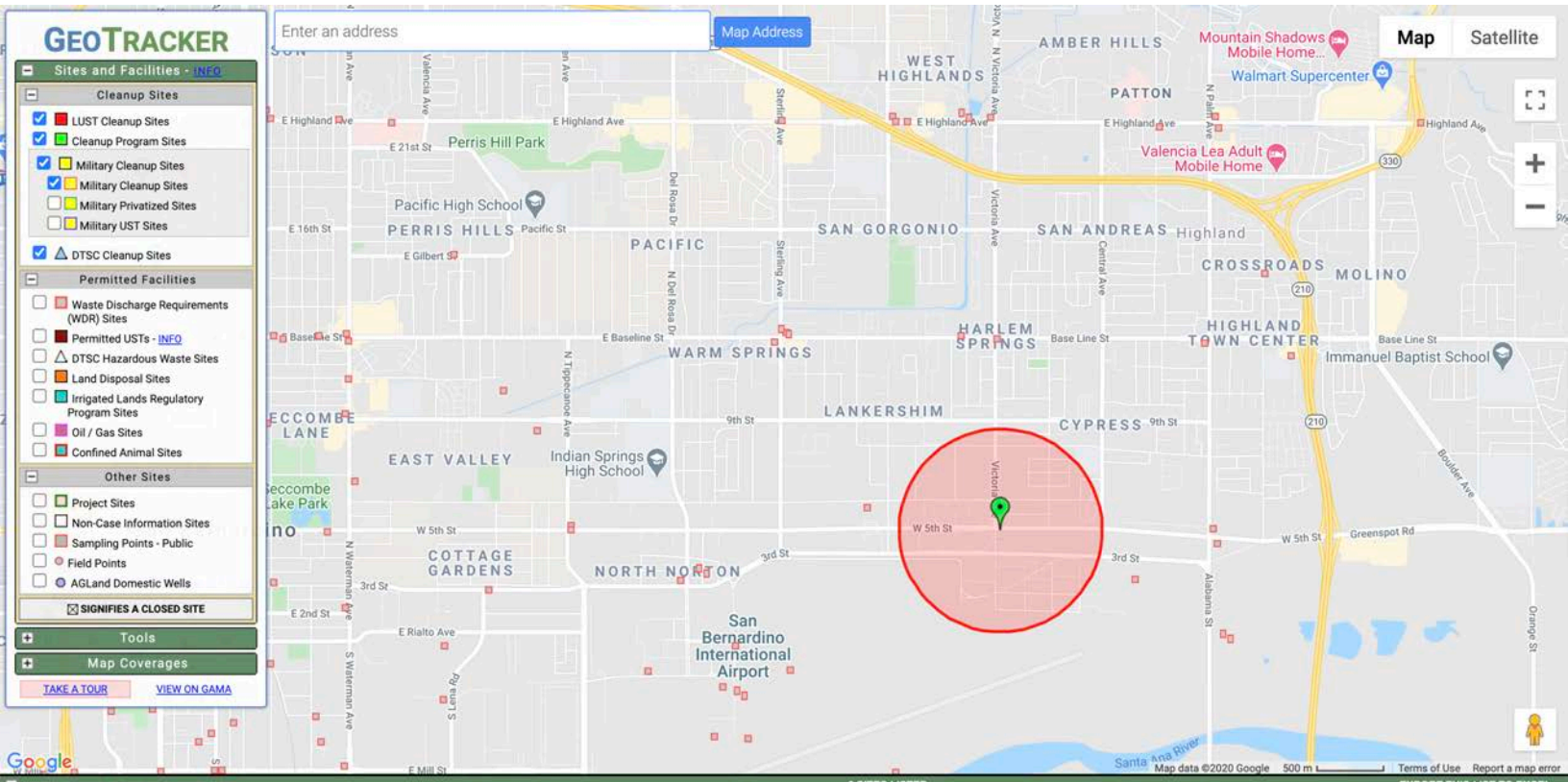
SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T0607719763	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO



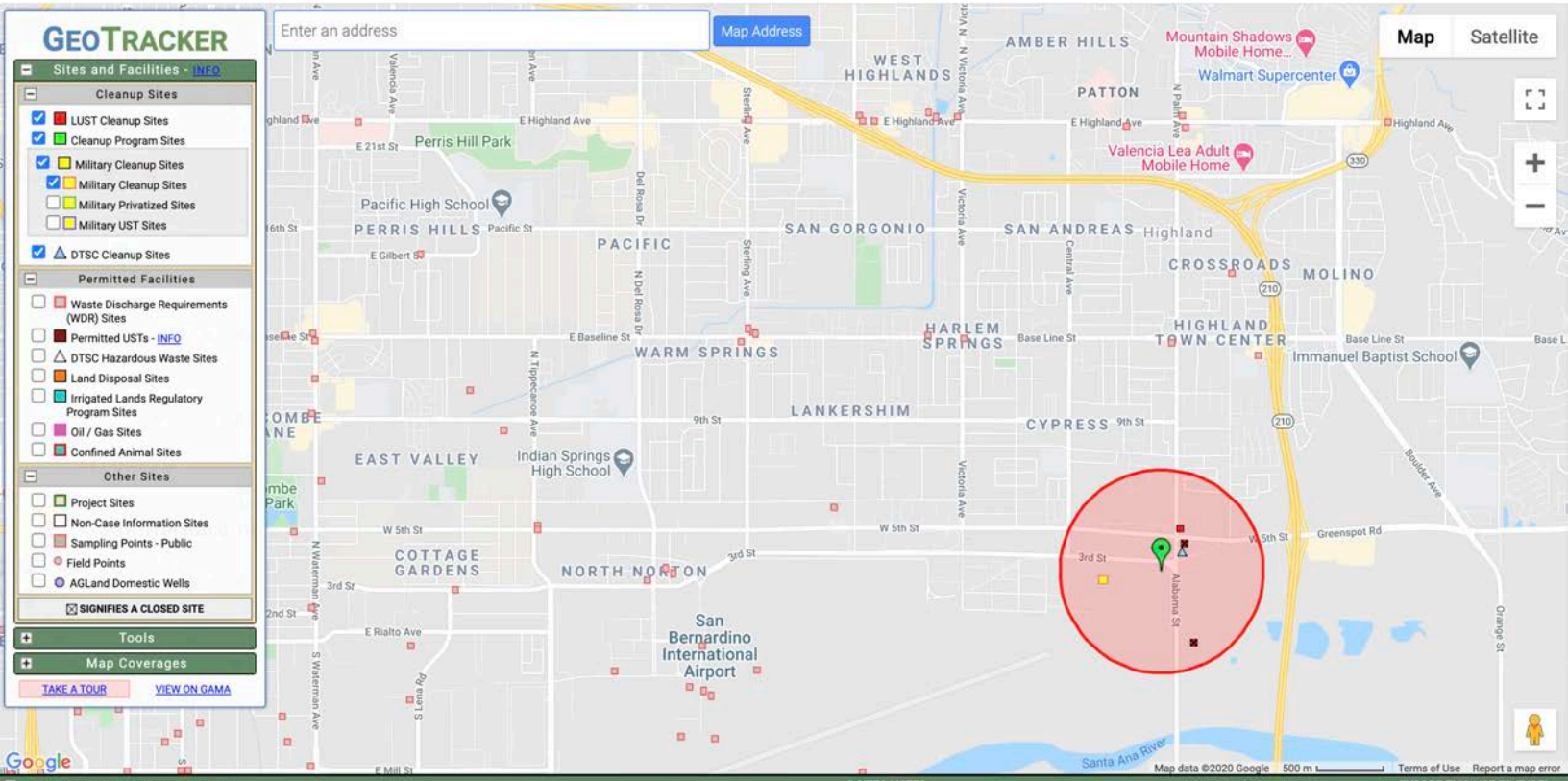
SITES FOUND IN SEARCH RADIUS — 1 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
CAL DISPOSAL	T0607199164	COMPLETED - CASE CLOSED	26009 6TH ST	HIGHLAND



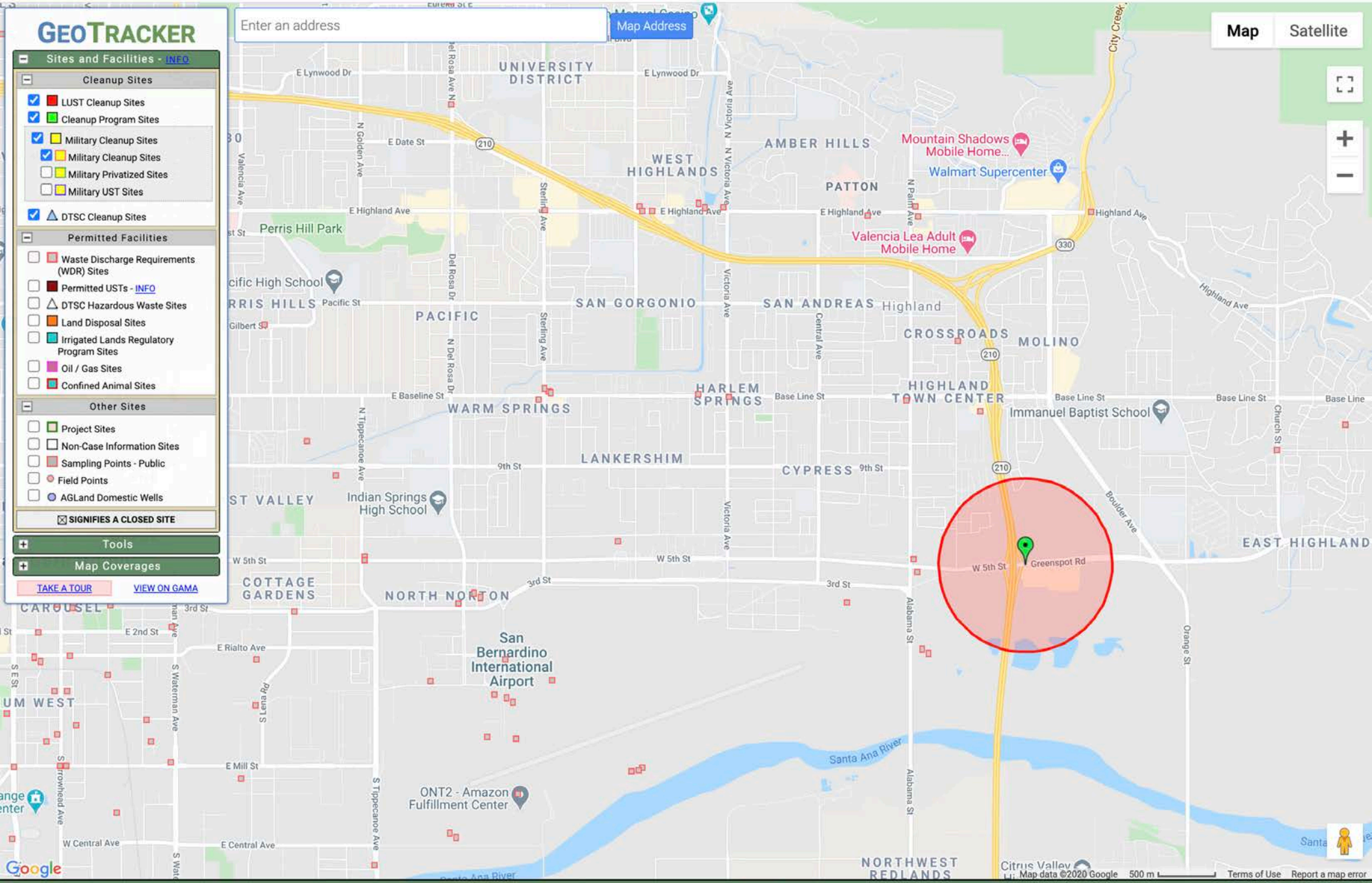
SITES FOUND IN SEARCH RADIUS — 0 SITES LISTED — EXPORT THIS LIST TO EXCEL

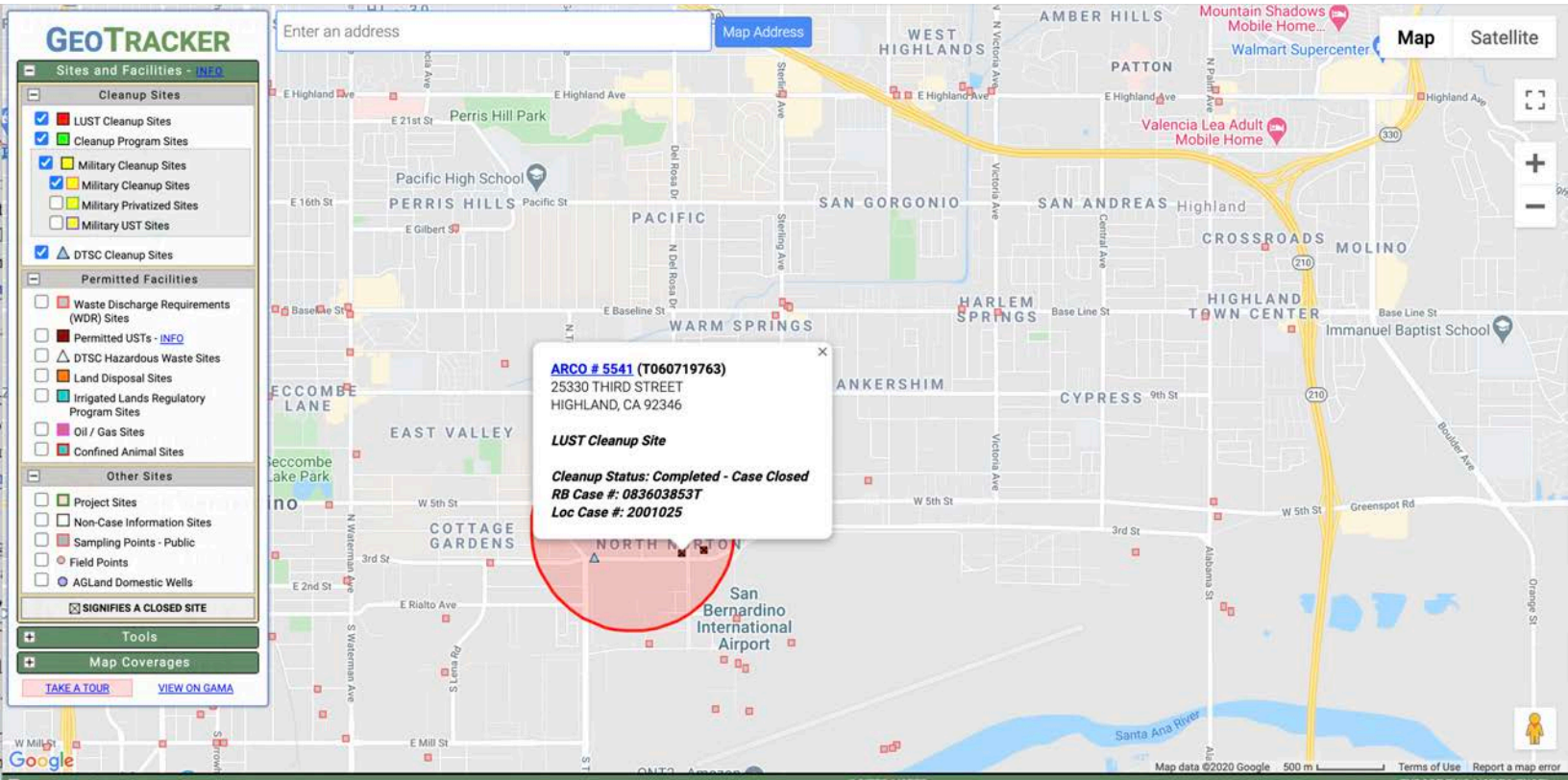
SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO AM PM #5617	T0607100636	COMPLETED - CASE CLOSED	27323 5TH ST	HIGHLAND
C. L. PHARRIS SAND & GRAVEL	T0607100282	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS
NORTON AIR FORCE BASE - US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL	DOD100360600	OPEN - VERIFICATION MONITORING		SAN BERNARDINO
SAFETY-KLEEN CORPORATION	T0607100369	OPEN - SITE ASSESSMENT	7979 PALM AVE	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	3000575	NO ACTION	7979 PALM AVE #E	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	80001784	NO FURTHER ACTION	7979 PALM AVE #E	HIGHLAND
SUNWEST MATERIALS	T0607100396	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS


GeoTracker
Enter an address
Map Address
Map
Satellite
Sites and Facilities - INFO
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
Military Cleanup Sites
Military Privatized Sites
Military UST Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - INFO
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Confined Animal Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
AGLand Domestic Wells
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
TAKE A TOUR
VIEW ON GAMA
UNIVERSITY DISTRICT
WEST HIGHLANDS
AMBER HILLS
PATTON
SAN GORGONIO
SAN ANDREAS
PACIFIC
CROSSROADS
MOLINO
HARLEM SPRINGS
HIGHLAND TOWN CENTER
WARM SPRINGS
LANKERSHIM
CYPRESS
COTTAGE GARDENS
NORTH NORTON
CAROUSEL
EAST HIGHLAND
NORTHWEST REDLANDS
Mountain Shadows Mobile Home...
Walmart Supercenter
Valencia Lea Adult Mobile Home
Perris Hill Park
Immanuel Baptist School
Indian Springs High School
San Bernardino International Airport
ONT2 - Amazon Fulfillment Center
Greenspot Rd
Santa Ana River
E Lynwood Dr
E Date St
E Highland Ave
Highland Ave
Pacific St
Gilbert St
E Baseline St
Base Line St
9th St
W 5th St
3rd St
E 2nd St
E Rialto Ave
E Mill St
W Central Ave
E Central Ave
Boulder Ave
Orange St
Alabama St
Victoria Ave
Central Ave
Sterling Ave
Del Rosa Dr
N Tippecanoe Ave
S Tippecanoe Ave
Church St
City Creek
Google
Map data ©2020 Google
500 m
Terms of Use
Report a map error
SITES FOUND IN SEARCH RADIUS
0 SITES LISTED
EXPORT THIS LIST TO EXCEL
SITE NAME
GLOBAL ID
STATUS
ADDRESS
CITY



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T060719763	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO

ARCO # 5541 (T060719763) - (MAP)

SIGN UP FOR EMAIL ALERTS

25330 THIRD STREET
HIGHLAND, CA 92346
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 10/29/2002 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 2001025*
CASEWORKER: *CATHERINE RICHARDS*
SANTA ANA RWQCB (REGION 8) - *CASE #: 0836038537*
CASEWORKER: *VALERIE JAHN-BULL*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 10/29/2002 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

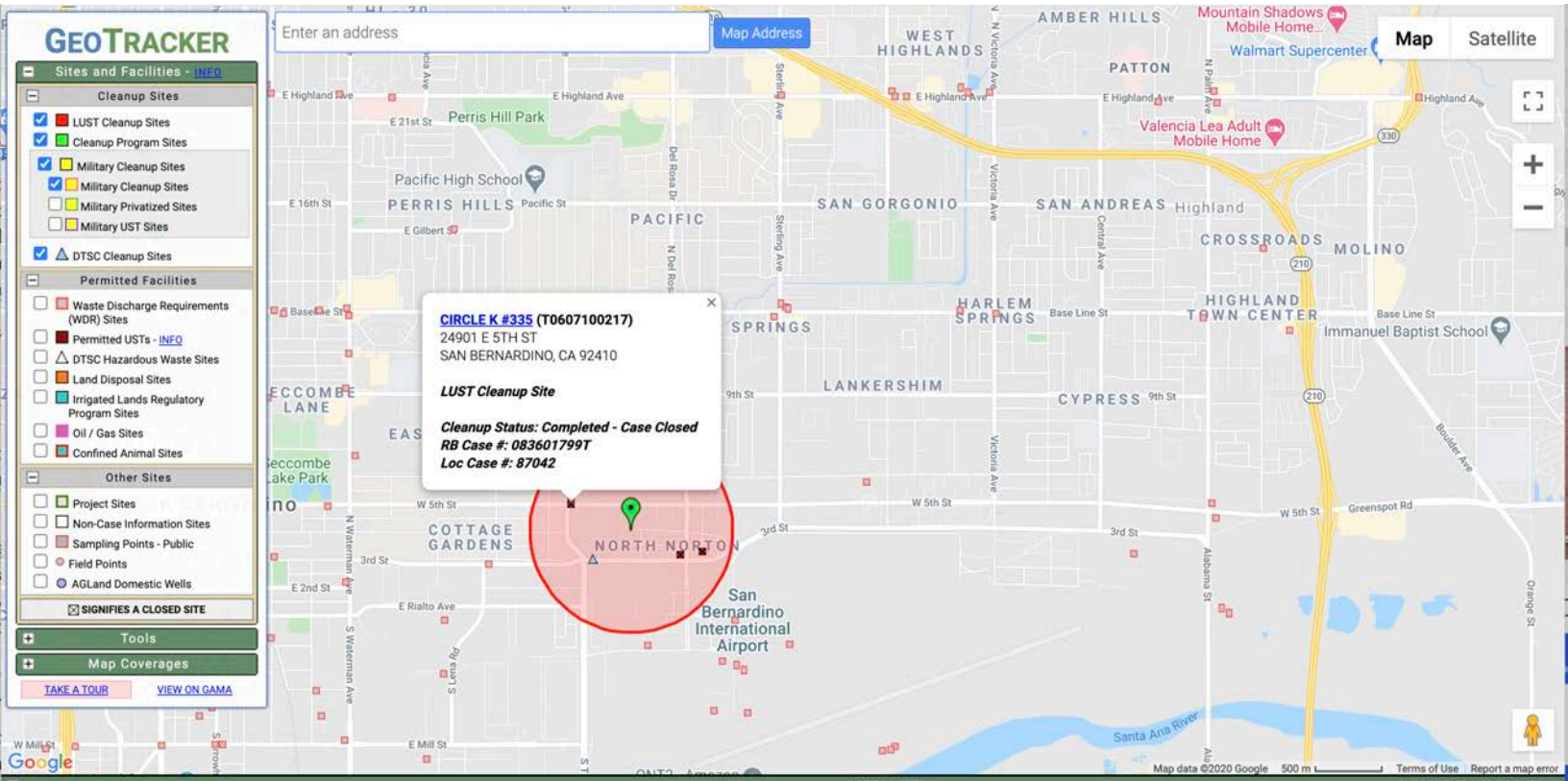
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T060719763	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO

CIRCLE K #335 (T0607100217) - (MAP)

SIGN UP FOR EMAIL ALERTS

24901 E 5TH ST
SAN BERNARDINO, CA 92410
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 6/2/1997 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD) - CASE #: 87042*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083601799T*
CASEWORKER: *CARL BERNHARDT*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 6/2/1997 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

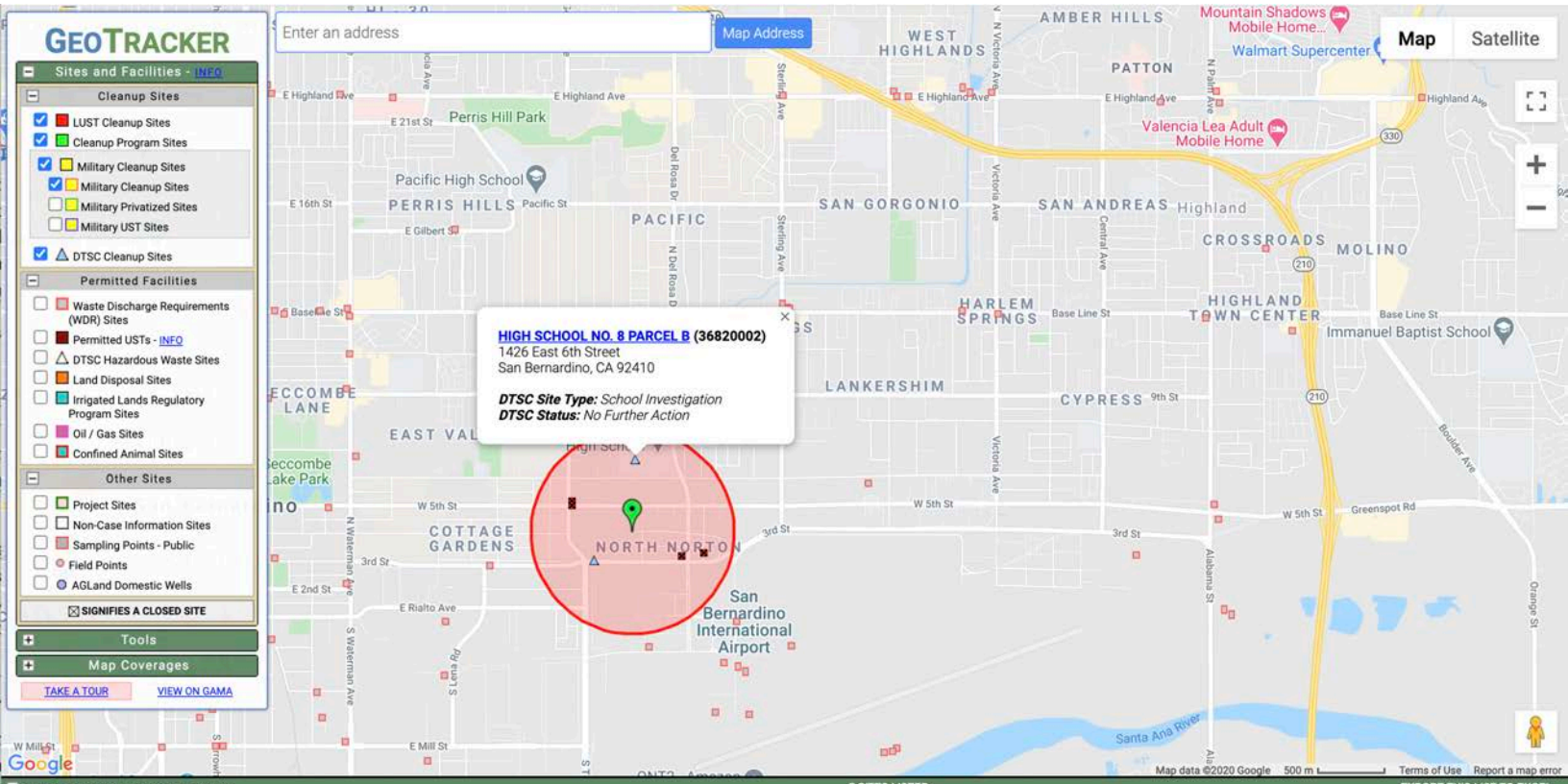
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T060719763	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO

HIGH SCHOOL NO. 8 PARCEL B (36820002)

SIGN UP FOR EMAIL ALERTS

1426 EAST 6TH STREET
SAN BERNARDINO, CA 92410
SAN BERNARDINO COUNTY
SITE TYPE: SCHOOL

PROJECT MANAGER:	STEPHANIE LEWIS
SUPERVISOR:	JAVIER HINOJOSA
OFFICE:	SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
SCHOOL DISTRICT:	SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
CENSUS TRACT:	6071006402
CALENVIROSCREEN PERCENTILE SCORE:	86-90%

Summary | Activities | Site/Facility Docs | Map | Related Sites | CalEnviroScreen

Site Information

CLEANUP STATUS
NO FURTHER ACTION AS OF 9/11/2006

SITE TYPE: SCHOOL
NATIONAL PRIORITIES LIST: NO
ACRES: 19 ACRES
APN: 0278-201-18, 027820118
CLEANUP OVERSIGHT AGENCIES:
DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY

SCHOOL DISTRICT: SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
ENVIROSTOR ID: 36820002
SITE CODE: 404539
SPECIAL PROGRAM:
FUNDING: SCHOOL DISTRICT
ASSEMBLY DISTRICT: 40
SENATE DISTRICT: 23

Regulatory Profile

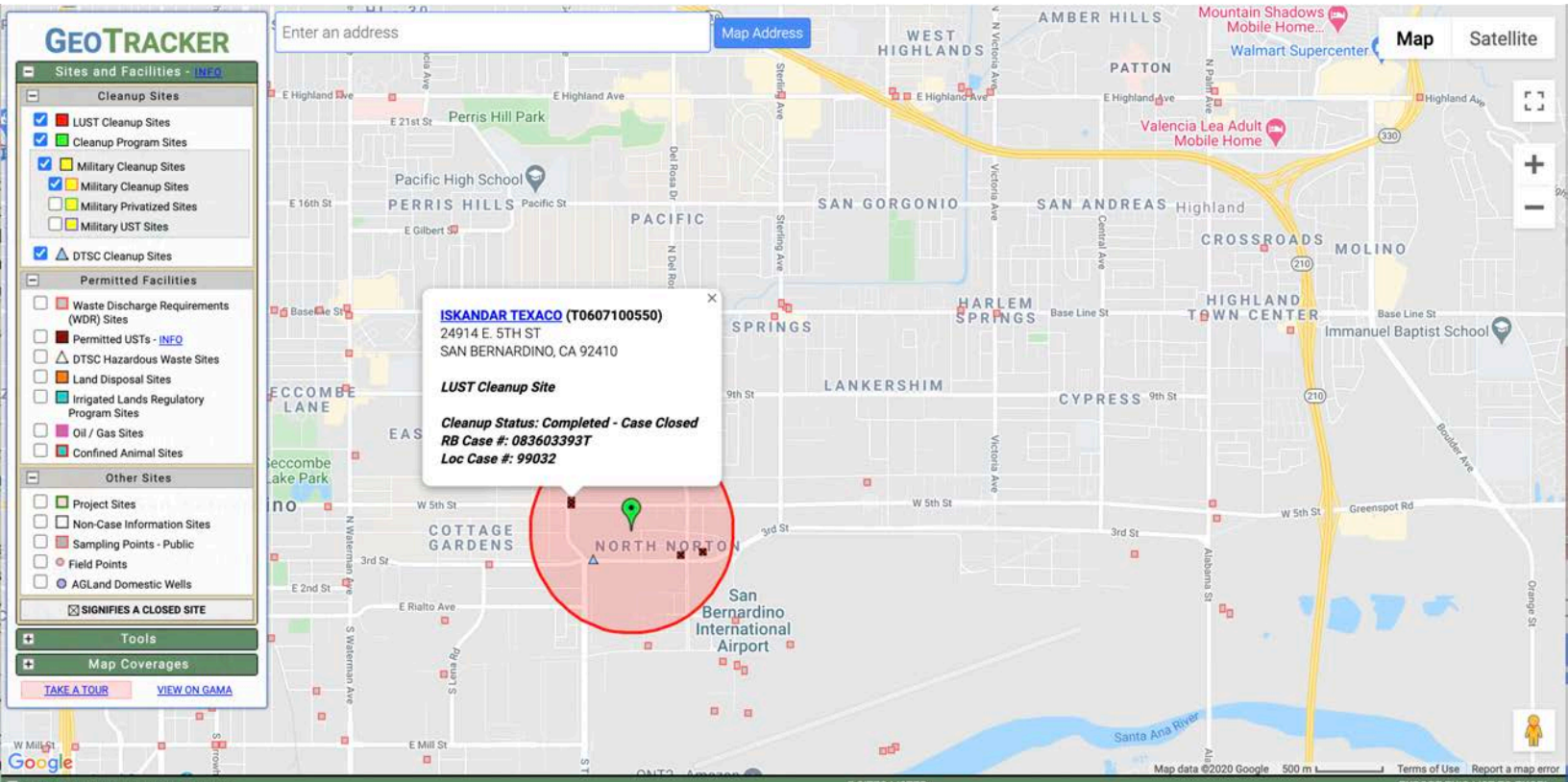
PAST USE(S) THAT CAUSED CONTAMINATION
EDUCATIONAL SERVICES

POTENTIAL CONTAMINANTS OF CONCERN
DDD
DDE
DDT

POTENTIAL MEDIA AFFECTED
SOIL

Site History

The site was used for agricultural purposes prior to 1968. The site is currently being used as the Curtis Middle School since 1968.



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T060719763	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO

ISKANDAR TEXACO (T0607100550) - (MAP)

SIGN UP FOR EMAIL ALERTS

24914 E. 5TH ST
SAN BERNARDINO, CA 92410
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 5/6/2010 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CUF Claim #: 14229
CUF Priority Assigned: B
CUF Amount Paid: $372,382

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 99032*
CASEWORKER: *CATHERINE RICHARDS*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083603393T*
CASEWORKER: *MIGUEL OVIEDO*

Summary | Case Reviews | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases | LUST CUF Data

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 5/6/2010 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE, MTBE / TBA / OTHER FUEL OXYGENATES

FILE LOCATION
LOCAL AGENCY

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

GROUNDWATER MONITORING FREQUENCY
OF WELLS MONITORED - OTHER : 3

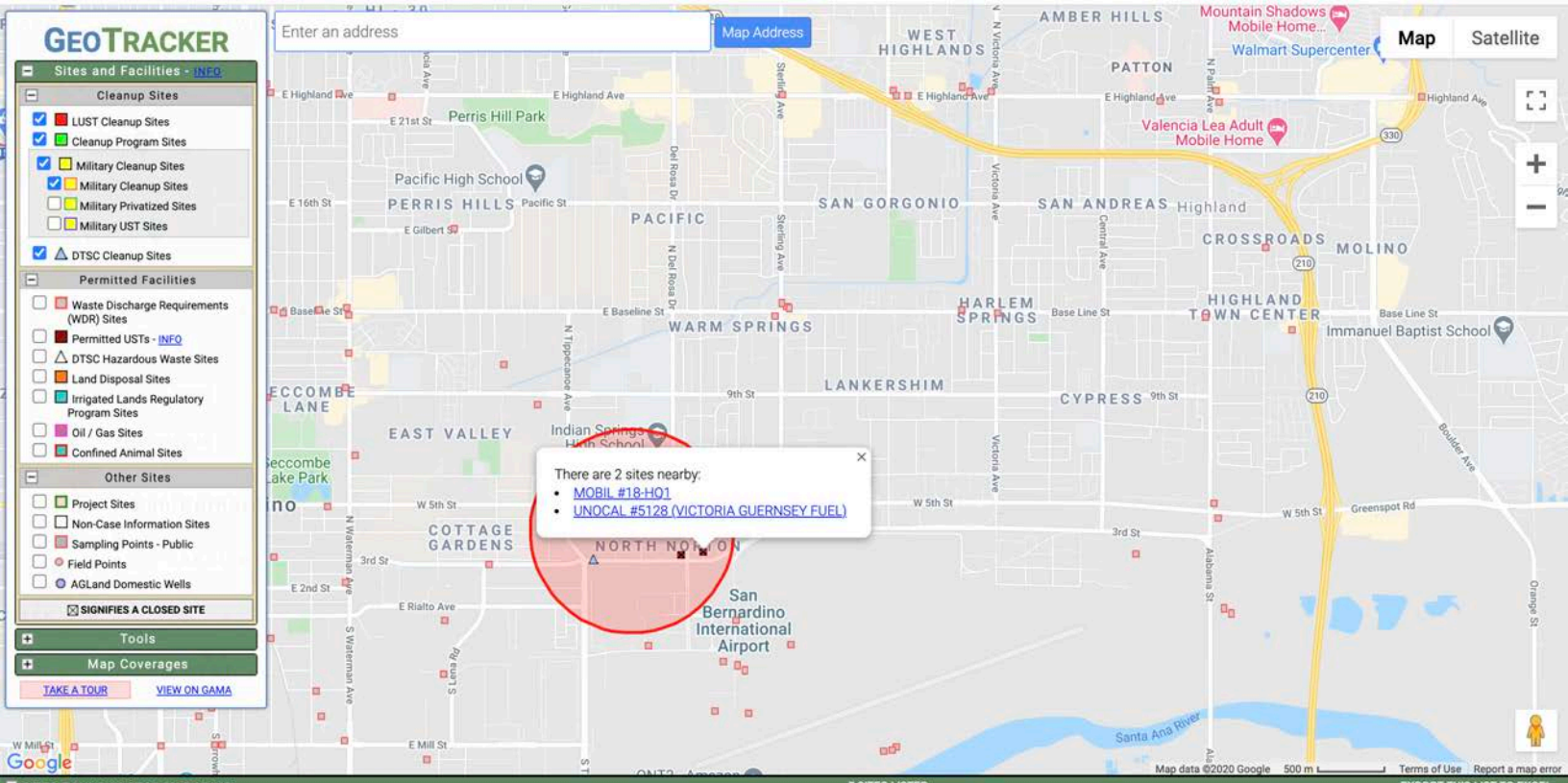
POTENTIAL MEDIA OF CONCERN
AQUIFER USED FOR DRINKING WATER SUPPLY

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T060719763	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO

MOBIL #18-HQ1 (T0607100066) - (MAP)

UST Case Closures for Public Comment
UST Case Closure Review Flow Chart
UST Petition Review Flow Chart

SIGN UP FOR EMAIL ALERTS

2742 DEL ROSA AVE
SAN BERNARDINO, CA 92404
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 7/14/1988 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 87048*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083600666T*
CASEWORKER: *ROSE SCOTT*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 7/14/1988 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE, WASTE OIL / MOTOR / HYDRAULIC / LUBRICATING

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available

UNOCAL #5128 (VICTORIA GUERNSEY FUEL) (T0607199037) - (MAP)

SIGN UP FOR EMAIL ALERTS

2735 DEL ROSA AVE
SAN BERNARDINO, CA 92404
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 3/24/1999 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 99153*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083603724T*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 3/24/1999 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

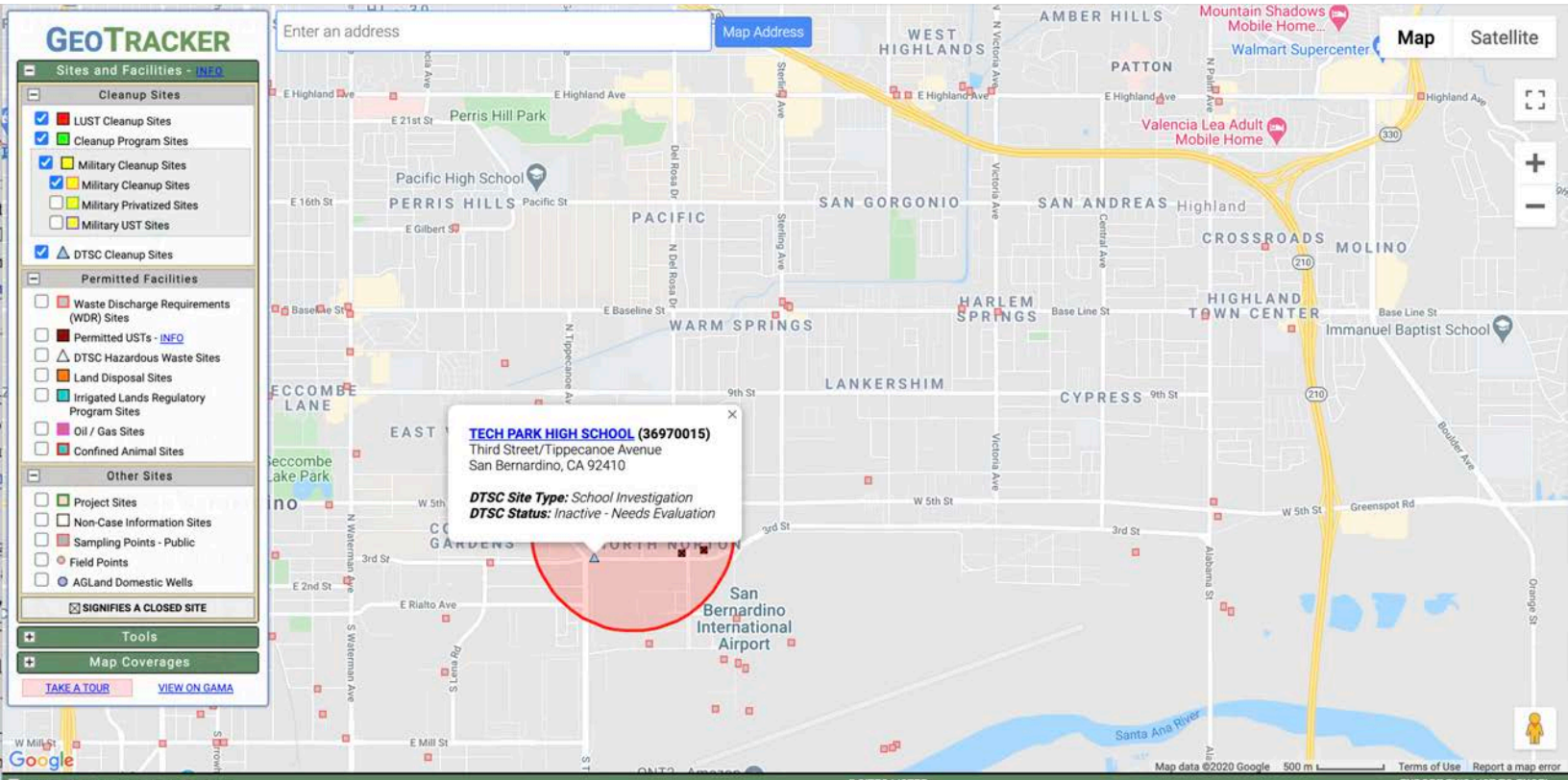
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO # 5541	T0607197631	COMPLETED - CASE CLOSED	25330 THIRD STREET	HIGHLAND
CIRCLE K #335	T0607100217	COMPLETED - CASE CLOSED	24901 E 5TH ST	SAN BERNARDINO
HIGH SCHOOL NO. 8 PARCEL B	36820002	NO FURTHER ACTION	1426 EAST 6TH STREET	SAN BERNARDINO
ISKANDAR TEXACO	T0607100550	COMPLETED - CASE CLOSED	24914 E. 5TH ST	SAN BERNARDINO
MOBIL #18-HQ1	T0607100066	COMPLETED - CASE CLOSED	2742 DEL ROSA AVE	SAN BERNARDINO
TECH PARK HIGH SCHOOL	36970015	INACTIVE - NEEDS EVALUATION	THIRD STREET/TIPPECANOE AVENUE	SAN BERNARDINO
UNOCAL #5128 (VICTORIA GUERNSEY FUEL)	T0607199037	COMPLETED - CASE CLOSED	2735 DEL ROSA AVE	SAN BERNARDINO

TECH PARK HIGH SCHOOL (36970015)

SIGN UP FOR EMAIL ALERTS

THIRD STREET/TIPPECANOE AVENUE
SAN BERNARDINO, CA 92410
SAN BERNARDINO COUNTY
SITE TYPE: SCHOOL

SUPERVISOR: MARK MALINOWSKI
OFFICE: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
SCHOOL DISTRICT: SAN BERNARDINO COUNTY OFF OF EDUCATION SCHOOL DISTRICT
CENSUS TRACT: 6071006500
CALENVIROSCREEN PERCENTILE SCORE: 91-95%

Summary | Activities | Site/Facility Docs | Map | Related Sites | CalEnviroScreen

Site Information

CLEANUP STATUS
INACTIVE - NEEDS EVALUATION AS OF 3/2/2000

SITE TYPE: SCHOOL
NATIONAL PRIORITIES LIST: NO
ACRES: 14 ACRES
APN: NONE SPECIFIED
CLEANUP OVERSIGHT AGENCIES:
DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY

SCHOOL DISTRICT: SAN BERNARDINO COUNTY OFF OF EDUCATION SCHOOL DISTRICT
ENVIROSTOR ID: 36970015
SITE CODE: 404003
SPECIAL PROGRAM:
FUNDING: SCHOOL DISTRICT
ASSEMBLY DISTRICT: 40
SENATE DISTRICT: 23

Regulatory Profile

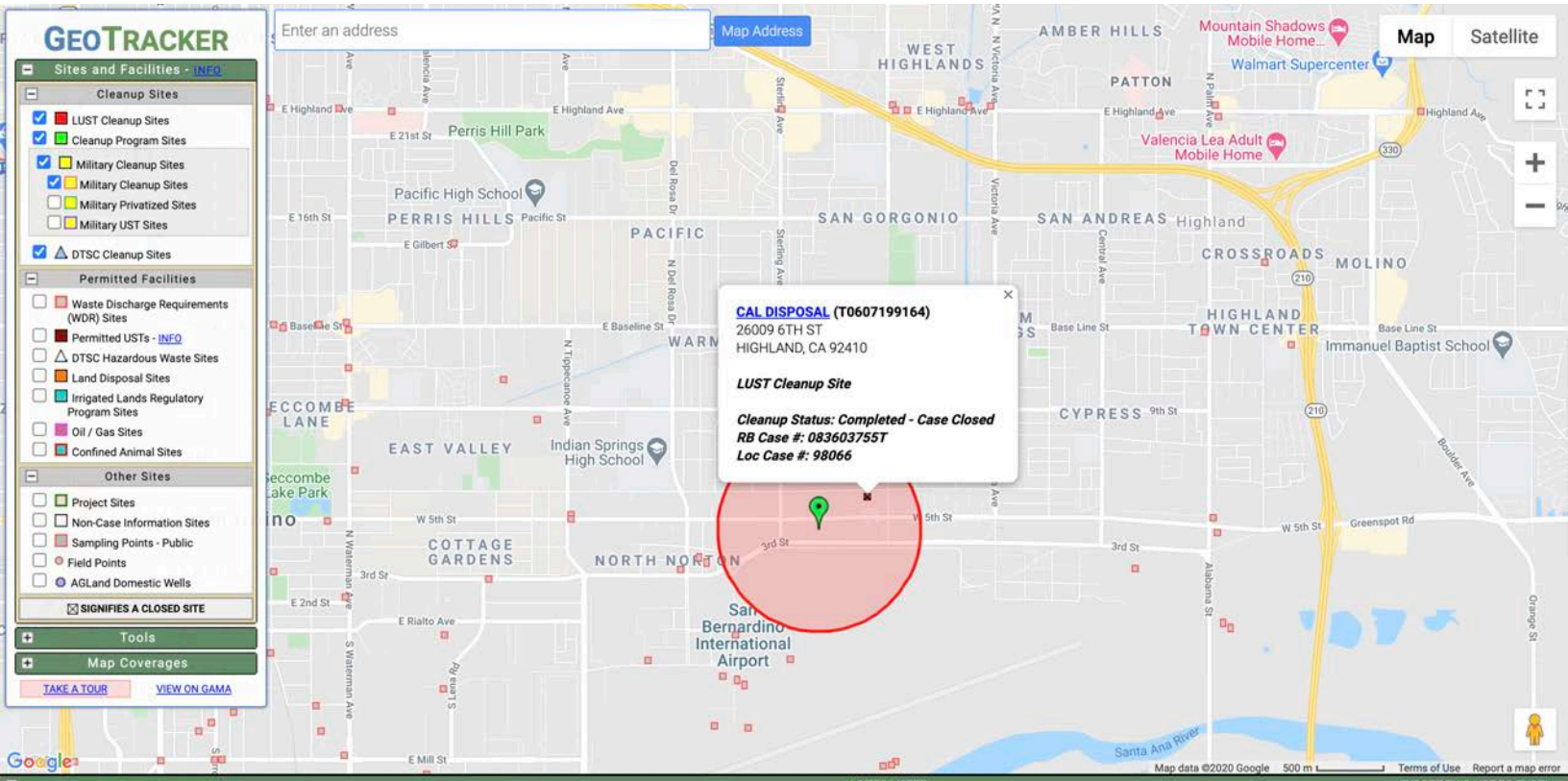
PAST USE(S) THAT CAUSED CONTAMINATION
NATIONAL SECURITY/INTERNATIONAL AFFAIRS

POTENTIAL CONTAMINANTS OF CONCERN
NONE SPECIFIED

POTENTIAL MEDIA AFFECTED
NONE SPECIFIED

Site History

This site is located on the former Norton Air Force Base (AFB). Since at least 1942, buildings associated with the operation of Norton AFB have been situated on the property, including dormitories, dinning halls, a theater, service station and storage tanks. Prior to that time, the property was used for the production of row crops. The phase 1 indicates that the buildings contain asbestos containing material and lead paint and there are transformers present contain PCBs



SITES FOUND IN SEARCH RADIUS — 1 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
CAL DISPOSAL	T0607199164	COMPLETED - CASE CLOSED	26009 6TH ST	HIGHLAND

CAL DISPOSAL (T0607199164) - (MAP)

SIGN UP FOR EMAIL ALERTS

26009 6TH ST
HIGHLAND, CA 92410
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 7/13/2000 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 98066*
SANTA ANA RWQCB (REGION 8) - *CASE #: 0836037557*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 7/13/2000 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
DIESEL

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

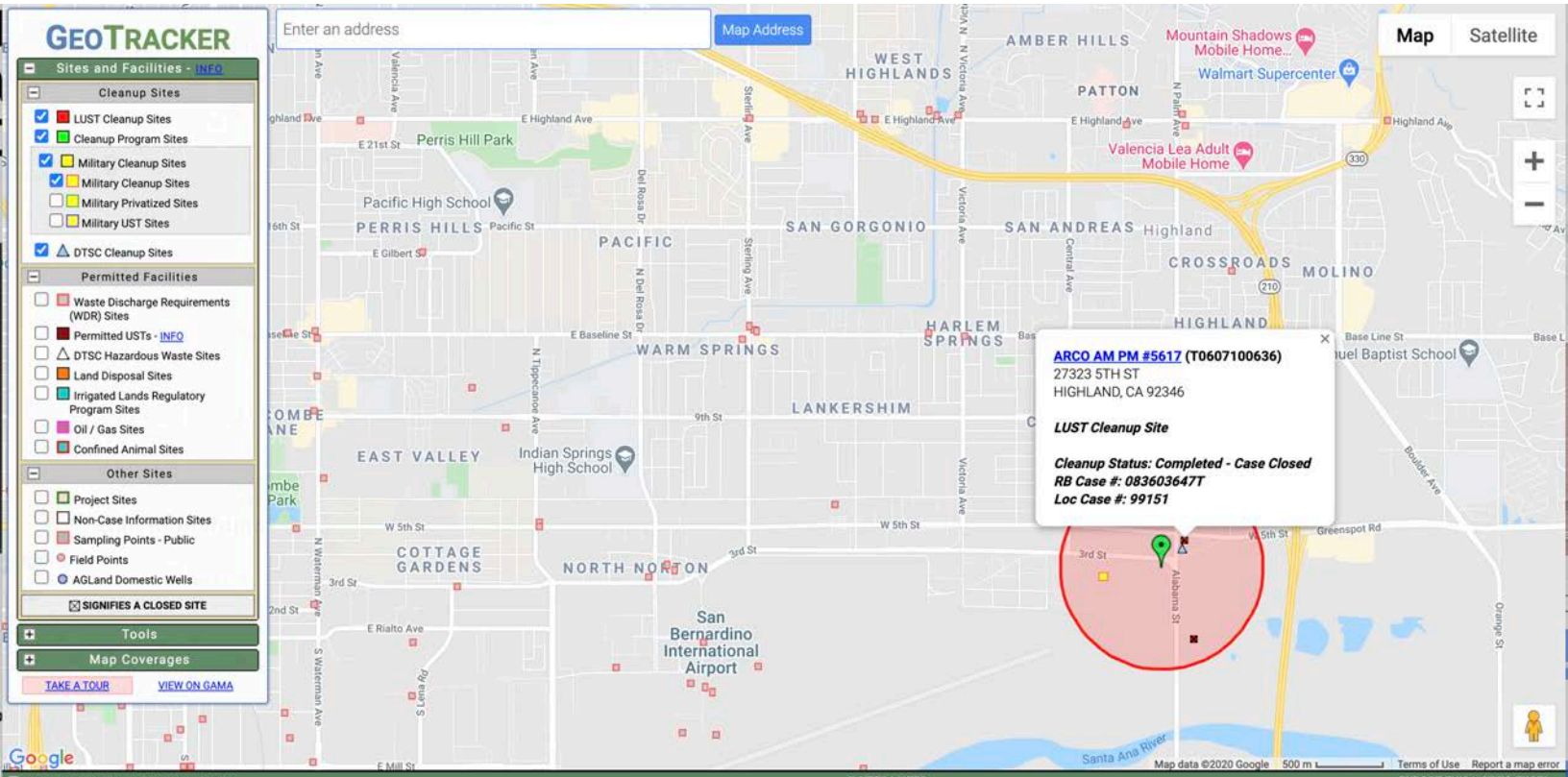
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO AM PM #5617	T0607100636	COMPLETED - CASE CLOSED	27323 5TH ST	HIGHLAND
C. L. PHARRIS SAND & GRAVEL	T0607100282	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS
NORTON AIR FORCE BASE - US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL	DOD100360600	OPEN - VERIFICATION MONITORING		SAN BERNARDINO
SAFETY-KLEEN CORPORATION	T0607100369	OPEN - SITE ASSESSMENT	7979 PALM AVE	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	3000575	NO ACTION	7979 PALM AVE #E	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	80001784	NO FURTHER ACTION	7979 PALM AVE #E	HIGHLAND
SUNWEST MATERIALS	T0607100396	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS

ARCO AM PM #5617 (T0607100636) - (MAP)

SIGN UP FOR EMAIL ALERTS

27323 5TH ST
HIGHLAND, CA 92346
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 3/5/2001 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 99151*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083603647T*
CASEWORKER: *VALERIE JAHN-BULL*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 3/5/2001 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

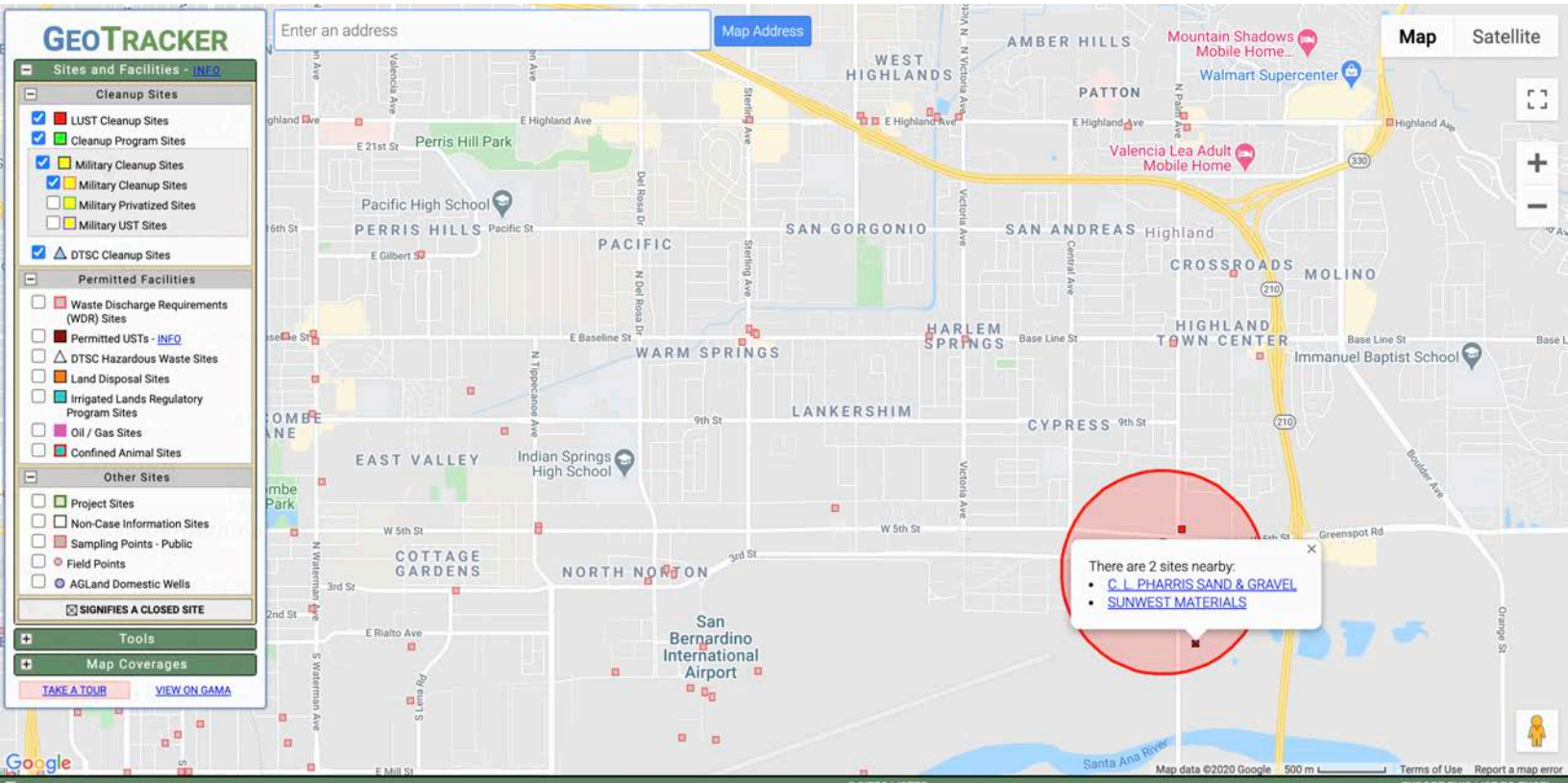
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO AM PM #5617	T0607100636	COMPLETED - CASE CLOSED	27323 5TH ST	HIGHLAND
C. L. PHARRIS SAND & GRAVEL	T0607100282	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS
NORTON AIR FORCE BASE - US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL	DOD100360600	OPEN - VERIFICATION MONITORING		SAN BERNARDINO
SAFETY-KLEEN CORPORATION	T0607100369	OPEN - SITE ASSESSMENT	7979 PALM AVE	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	3000575	NO ACTION	7979 PALM AVE #E	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	80001784	NO FURTHER ACTION	7979 PALM AVE #E	HIGHLAND
SUNWEST MATERIALS	T0607100396	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS

C. L. PHARRIS SAND & GRAVEL (T0607100282) - (MAP)

SIGN UP FOR EMAIL ALERTS

8203 ALABAMA ST
REDLANDS, CA 92374
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 12/21/1994 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 93013*
CASEWORKER: *CURTIS BRUNDAGE*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083602267T*
CASEWORKER: *CARL BERNHARDT*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS

COMPLETED - CASE CLOSED AS OF 12/21/1994 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
DIESEL

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available

SUNWEST MATERIALS (T0607100396) - (MAP)

SIGN UP FOR EMAIL ALERTS

8203 ALABAMA ST
REDLANDS, CA 92346
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
COMPLETED - CASE CLOSED AS OF 2/27/1996 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN BERNARDINO COUNTY *(LEAD)* - *CASE #: 94066*
CASEWORKER: *CURTIS BRUNDAGE*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083602752T*
CASEWORKER: *CARL BERNHARDT*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 2/27/1996 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
GASOLINE

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION
LOCAL AGENCY

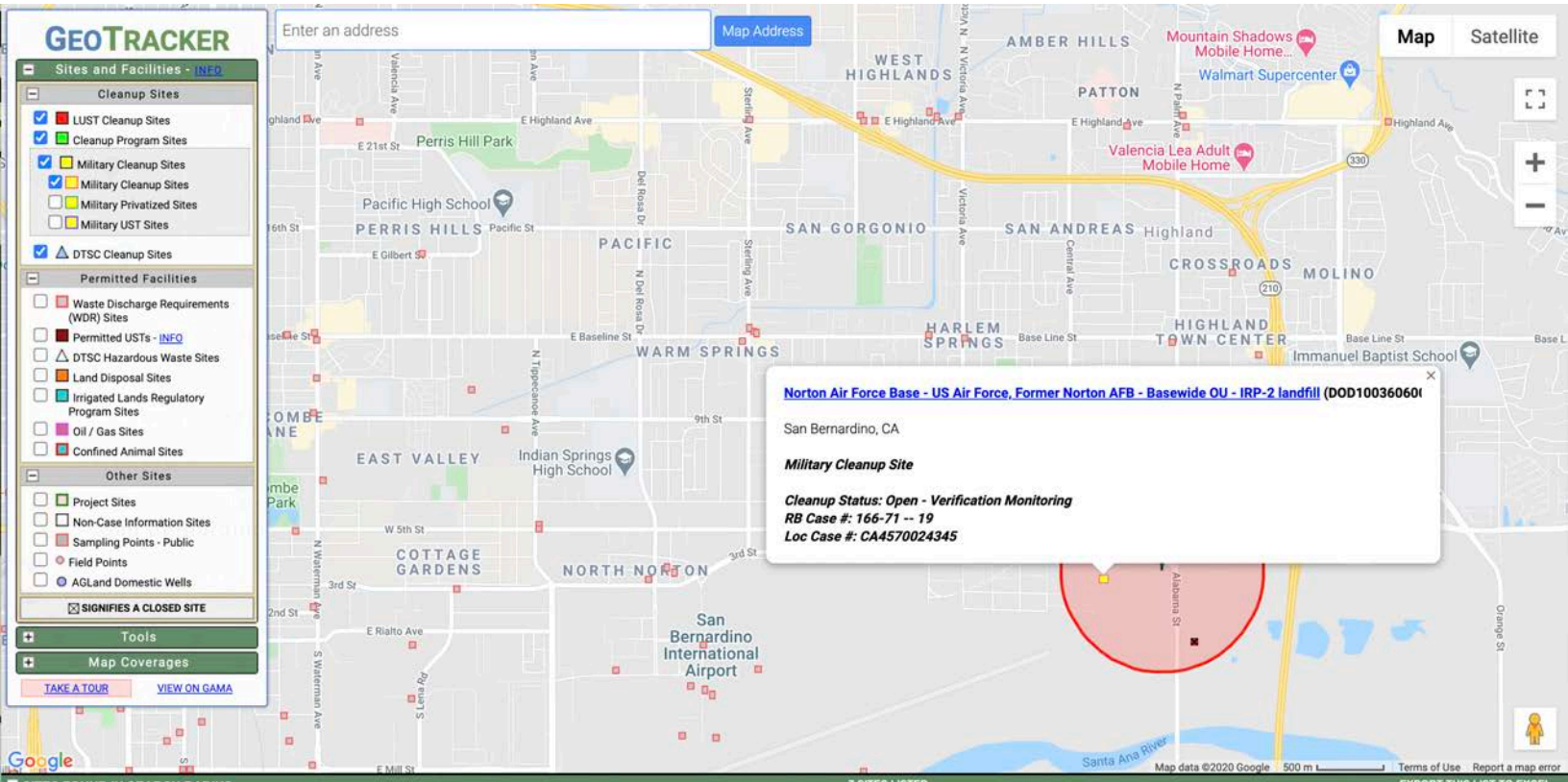
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

No site history available



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO AM PM #5617	T0607100636	COMPLETED - CASE CLOSED	27323 5TH ST	HIGHLAND
C. L. PHARRIS SAND & GRAVEL	T0607100282	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS
NORTON AIR FORCE BASE - US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL	DOD100360600	OPEN - VERIFICATION MONITORING		SAN BERNARDINO
SAFETY-KLEEN CORPORATION	T0607100369	OPEN - SITE ASSESSMENT	7979 PALM AVE	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	3000575	NO ACTION	7979 PALM AVE #E	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	80001784	NO FURTHER ACTION	7979 PALM AVE #E	HIGHLAND
SUNWEST MATERIALS	T0607100396	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS

US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL (DOD100360600) - (MAP)

SIGN UP FOR EMAIL ALERTS

SAN BERNARDINO, CA
SAN BERNARDINO COUNTY
MILITARY CLEANUP SITE (INFO)
OPEN - VERIFICATION MONITORING AS OF 7/31/2009 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
DEPARTMENT OF TOXIC SUBSTANCES CONTROL *(LEAD)* - *CASE #: CA4570024345*
SANTA ANA RWQCB (REGION 8) *(LEAD)* - *CASE #: 166-71 -- 19*
CASEWORKER: *PATRICIA HANNON*
US ENVIRONMENTAL PROTECTION AGENCY - *CASE #: 400108 -- 19*

Regulatory Profile

PRINTABLE CASE SUMMARY

MILITARY BASE
NORTON AIR FORCE BASE

CLEANUP STATUS - DEFINITIONS
OPEN - VERIFICATION MONITORING AS OF 7/31/2009 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
FREON, LEAD, POLYCHLORINATED BIPHENYLS (PCBS), TETRACHLOROETHYLENE (PCE), TRICHLOROETHYLENE (TCE), VINYL CHLORIDE

POTENTIAL MEDIA OF CONCERN
AQUIFER USED FOR DRINKING WATER SUPPLY, SOIL, SOIL VAPOR

FILE LOCATION
ALL FILES ARE ON GEOTRACKER OR IN THE LOCAL AGENCY DATABASE

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

Installation Restoration Program (IRP) Site 2 was operated as the main landfill at Norton AFB from 1958 to 1980. It accepted general refuse, demolition debris, and industrial waste. It encompassed 35 acres in the northeastern corner of the former base. The landfill was operated as a trench and fill type landfill and received an estimated 1,000,000 cubic yards (cy) of waste.

A listing of investigations and reports performed prior to site consolidation and closure: 1982) Records Search for Norton AFB; 1985) Final Phase II, Stage I Technical Report, Problem Confirmation/Quantification Study; 1987) Phase II, Stage 2 Confirmation/Quantification Report; 1989) Final Draft Stage 3 Report;
1992) Remedial Investigation Report, IRP Sites; 1993) Final Technical Memorandum, Additional Fieldwork for Landfills, IRP Sites 2 and 10; 1993) Final Remedial Investigation Report, IRP Sites Operable Unit; 1993) Landfill Gas Report; 1993) Pre-Final Basewide Records Search; 1994) Final IRP Sites 2 and 10 Landfill Investigation Report, Addendum 2 to the IRP Sites Operable Unit RI Report; 1996) Site 2 Landfill Closure Design Fieldwork Report; 1996) Final IRP Site 2, Landfill 2, Landfill Gas Migration Study Investigation Technical Memorandum; 1996) Final Vapor Extraction Treatability Study; 1996) Engineering Evaluation/Cost Analysis; and 1997) Final Action Memorandum.

The landfill cover design was for consolidation of three areas of existing landfill consisting of over 141,000 cy onto the existing landfill and construction of an monolithic soil cover. The cover has a 2-foot-thick soil foundation layer below a 4-foot-thick monolithic soil layer. Monolithic layer is designed to storage and evaprotranspiration characteristics to minimize percolation into waste. It has a landfill gas collection, extraction, and treatment system and storm water run off control structures.

The following actions were performed in implementation of the landfill closure construction: 1) Designed a landfill closure cap and landfill gas collection and destruction system and prepared engineering drawings; 2) Abandoned groundwater monitoring wells and landfill gas probes within the proposed landfill footprint; 3) Consolidated the existing landfill into a smaller footprint; 4) Backfilled the excavation areas; 5) Constructed the foundation layer and the 4-foot-thick monolithic layer cap; 6) Installed and commissioned landfill gas (LFG) collection and treatment system; 7) Constructed surface slopes and drainage channels at the tow of the cover to convey storm water from the landfill area toward the City Creek channel and the Santa Ana River; 8) Installed neutron probe access tubes and LFG perimeter monitoring probes; 9) Hydroseeded the final cover to provide erosion control; 10) Hydroseeded the backfilled excavated areas; 11) Installed perimeter fencing; 12) Documented construction quality to demonstrate compliance with the landfill closure design; and 13) Prepared a plan for operating, monitoring, and maintaining the landfill closure system.

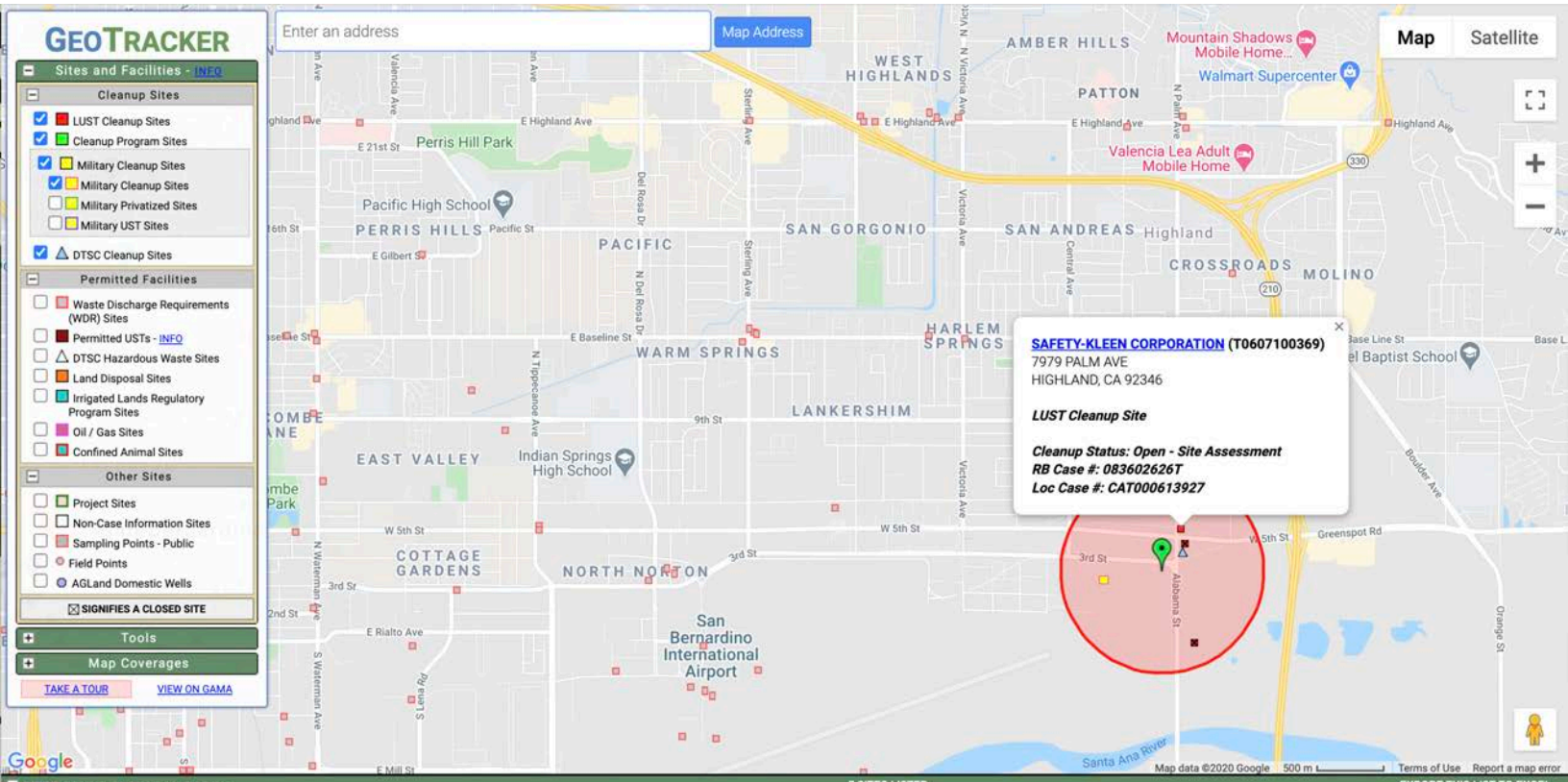
The Closure and Postclosure Plan was issued on January 29, 1998 and the final inspection of following construction was on April 23, 1999.

Operations, monitoring, maintenance, and reporting has been ongoing since the completion of the landfill cover.

October 2007, a Closure Plan/Post Closure Maintenance Plan (CP/P-CMP) was submitted for redevelopment of the landfill top deck. The proposal was to revise the the majority of the top cover by construct of an asphalt parking lot, and modiifying drainage controls. The CP/P-CMP was approved on January 4, 2008.

In March 2010 an asphaltic concrete parking lot was completed on top of the landfill

May 2017 Air Force contractor sampled groundwater to determine the presence or absence of PFAS. PFOA and PFOS were detected in groundwater sample at concentrations below USEPA Health Advisory of 70 parts per trillion.



SITES FOUND IN SEARCH RADIUS

7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO AM PM #5617	T0607100636	COMPLETED - CASE CLOSED	27323 5TH ST	HIGHLAND
C. L. PHARRIS SAND & GRAVEL	T0607100282	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS
NORTON AIR FORCE BASE - US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL	DOD100360600	OPEN - VERIFICATION MONITORING		SAN BERNARDINO
SAFETY-KLEEN CORPORATION	T0607100369	OPEN - SITE ASSESSMENT	7979 PALM AVE	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	3000575	NO ACTION	7979 PALM AVE #E	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	80001784	NO FURTHER ACTION	7979 PALM AVE #E	HIGHLAND
SUNWEST MATERIALS	T0607100396	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS

SAFETY-KLEEN CORPORATION (T0607100369) - (MAP)

SIGN UP FOR EMAIL ALERTS

7979 PALM AVE
HIGHLAND, CA 92346
SAN BERNARDINO COUNTY
LUST CLEANUP SITE (INFO)
OPEN - SITE ASSESSMENT AS OF 1/10/1994 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
DEPARTMENT OF TOXIC SUBSTANCES CONTROL *(LEAD)* - *CASE #: CAT000613927*
DEPARTMENT OF PUBLIC HEALTH
SAN BERNARDINO COUNTY
CASEWORKER: *CATHERINE RICHARDS*
SANTA ANA RWQCB (REGION 8) - *CASE #: 083602626T*
CASEWORKER: *MIGUEL OVIEDO*

Summary | Case Reviews | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile

PRINTABLE CASE SUMMARY

CLEANUP STATUS - DEFINITIONS
OPEN - SITE ASSESSMENT AS OF 1/10/1994 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
STODDARD SOLVENT / MINERAL SPRIITS / DISTILLATES

POTENTIAL MEDIA OF CONCERN
SOIL

FILE LOCATION

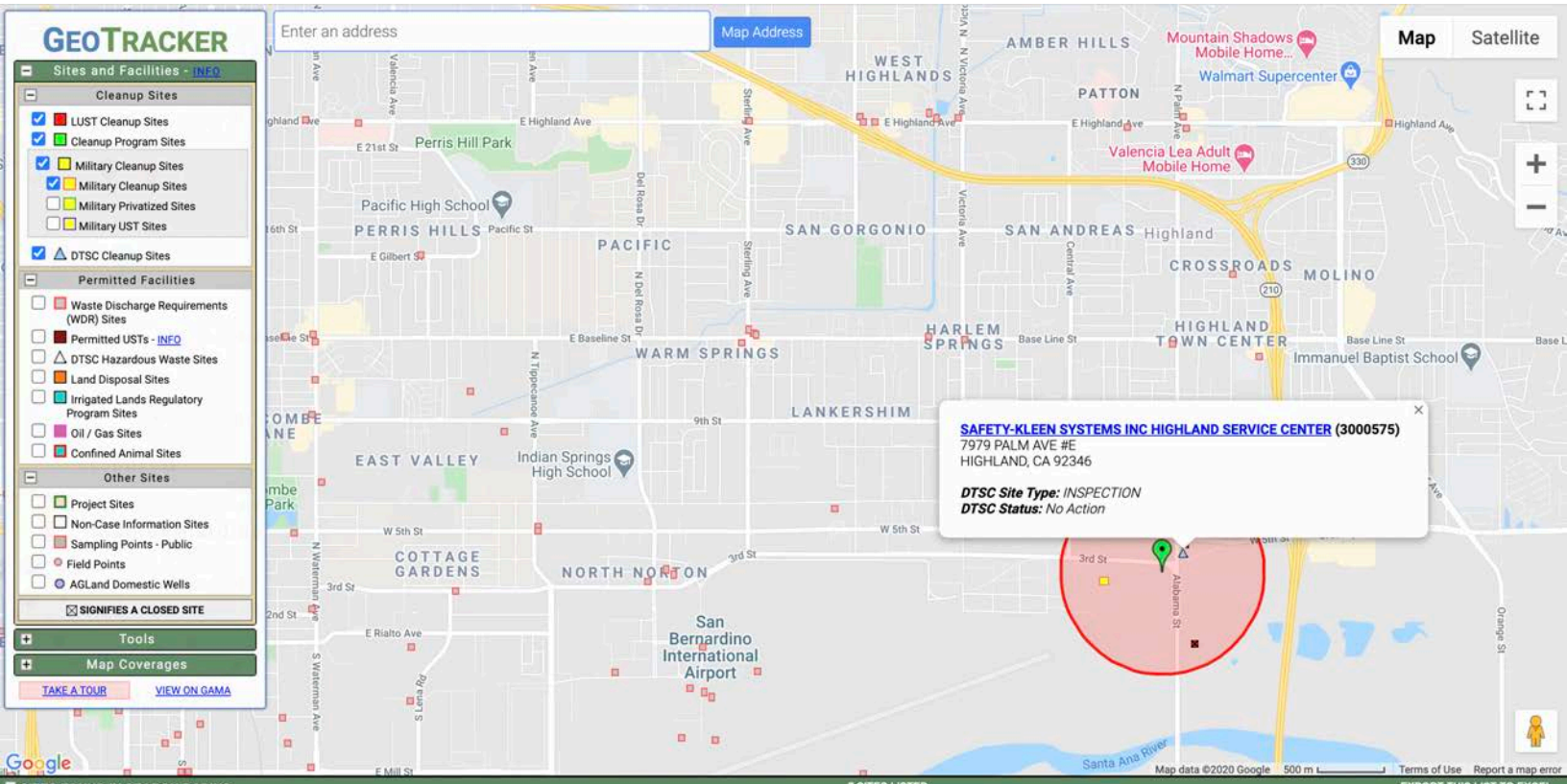
DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC, 8 - Note: Also incl part of 801.53, 801.54, 801.57

DWR GROUNDWATER SUB-BASIN NAME
Upper Santa Ana Valley - San Bernardino (8-002.06)

CALWATER WATERSHED NAME
Santa Ana River - Upper Santa Ana River - Bunker Hill (801.52)

Site History

DTSC lead agengy for site. Consult DTSC's Envirostor database site site status.



SITES FOUND IN SEARCH RADIUS — 7 SITES LISTED — EXPORT THIS LIST TO EXCEL

SITE NAME	GLOBAL ID	STATUS	ADDRESS	CITY
ARCO AM PM #5617	T0607100636	COMPLETED - CASE CLOSED	27323 5TH ST	HIGHLAND
C. L. PHARRIS SAND & GRAVEL	T0607100282	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS
NORTON AIR FORCE BASE - US AIR FORCE, FORMER NORTON AFB - BASEWIDE OU - IRP-2 LANDFILL	DOD100360600	OPEN - VERIFICATION MONITORING		SAN BERNARDINO
SAFETY-KLEEN CORPORATION	T0607100369	OPEN - SITE ASSESSMENT	7979 PALM AVE	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	3000575	NO ACTION	7979 PALM AVE #E	HIGHLAND
SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER	80001784	NO FURTHER ACTION	7979 PALM AVE #E	HIGHLAND
SUNWEST MATERIALS	T0607100396	COMPLETED - CASE CLOSED	8203 ALABAMA ST	REDLANDS

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (80001784)

SIGN UP FOR EMAIL ALERTS

7979 PALM AVE #E
HIGHLAND, CA 923460000
SAN BERNARDINO COUNTY
SITE TYPE: CORRECTIVE ACTION

SUPERVISOR: * JOHN GEROCH
OFFICE: CLEANUP CYPRESS
CENSUS TRACT: 6071007604
CALENVIROSCREEN PERCENTILE SCORE: 96-100% (highest scores)

Summary | Activities | Site/Facility Docs | Sub-Areas | Map | Related Sites | CalEnviroScreen | Permitting | Enforcement / Inspections

Site Information

CLEANUP STATUS
NO FURTHER ACTION AS OF 9/9/2010

SITE TYPE: CORRECTIVE ACTION
NATIONAL PRIORITIES LIST: NO
ACRES: 1.8 ACRES
APN: NONE SPECIFIED
CLEANUP OVERSIGHT AGENCIES:
DTSC - SITE CLEANUP PROGRAM

ENVIROSTOR ID: 80001784
SITE CODE: 400247
SPECIAL PROGRAM:
FUNDING:
ASSEMBLY DISTRICT: 40
SENATE DISTRICT: 23

Regulatory Profile

PAST USE(S) THAT CAUSED CONTAMINATION
DISTRIBUTOR - CHEMICAL

POTENTIAL CONTAMINANTS OF CONCERN
TPH-STODDARD SOLVENT

POTENTIAL MEDIA AFFECTED
SOIL

Site History

Entered 11/01/07. Safety-Kleen Systems, Inc. Highland Service Center is located at 7979 Palm Avenue in Highland, San Bernardino County, California (Facility). The Facility is zoned industrial by the city of Highland.

Safety-Kleen Systems, Inc. (Safety-Kleen) began operation in 1968 to provide solvent reclamation and supply service for customers engaged in automotive repairs, industrial maintenance, and dry cleaning. The facility has been operating as a hazardous waste storage facility since June 1977. On September 17, 1994, DTSC issued a Hazardous Waste Facility Permit to the Permittee. The Permit expired on September 17, 2004, and the Permit was renewed with an effective date of June 23, 2007. The Facility has been handling hazardous wastes which include Petroleum-Based Cleaners (Mineral Spirits), Aqueous-Based Parts Washing Solution, Used Oil, Antifreeze, Freon, Paint Waste/Lacquer Thinner and Dry Cleaning solvents. Safety-Kleen owns the land and structure at the Facility.

The Department of Toxic Substances Control (DTSC) prepared a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) Report for the Facility in March 1992. The RFA identified four Solid Waste Management Units (SWMUs) and two Areas of Concerns (AOCs) The SWMUs and AOCs are as follows: SWMU #1 - Drum Storage Area, SWMU #2 - 10,000 Gallon Waste Mineral Spirits Underground Storage Tank (UST), SWMU #3 - 1,000 Gallon Waste Mineral Spirits UST, SWMU #4 - Return and Fill Area, AOC #1 - 10,000 Gallon Product Mineral Spirits UST, AOC #2 - Empty Drum Storage Area. SWMUs 2, 3, 4 and AOCs 1 and 2 underwent partial closure in 1993. The Permittee conducted Phase I RCRA Facility Investigation (RFI) activities to characterize the presence and extent of contaminants (Mineral spirits and Volatile Organic Compounds) and to operate a pilot test of a soil vapor extraction (SVE) system. The Permittee also conducted Phase II RFI to evaluate potential groundwater impacts and for full scale operation of the SVE system. The Phase II RFI Report suggested that the groundwater had not been affected by releases of constituents at the Facility. DTSC approved the Phase II Report in 2000. The Permittee submitted a Corrective Measures Study Workplan (CMS Workplan) to DTSC in October 2002 which proposes additional subsurface investigation activities to evaluate the effectiveness of previously completed corrective measures. DTSC is currently reviewing the CMS Workplan. A Corrective Action Consent Agreement was signed by both DTSC and Safety-Kleen, and it became effective on November 15, 2007.

Updated 3/18/08 - On February 19, 2008, DTSC provided comments to Safety-Kleen on the facility's revised RCRA Corrective Measures Study (CMS) Workplan.
Updated 8/07/08 - After discussions with Safety-Kleen, DTSC provided revised comments on the facility's revised CMS Workplan in a letter dated July 7, 2008.
Updated 11/19/08 - DTSC accepted Safety-Kleen's responses to DTSC comments dated August 18, 2008. In a letter dated October 28, 2008 DTSC requested Safety-Kleen to submit a final CMS Work Plan incorporating DTSC comments.
Updated 3/4/09 - On February 9, 2009, DTSC sent a letter to safety-Kleen, approving the Revised RCRA Corrective Measures Study Work Plan for the Facility, dated December 1, 2008.

SAFETY-KLEEN SYSTEMS INC HIGHLAND SERVICE CENTER (CAT000613927)

SIGN UP FOR EMAIL ALERTS

7979 PALM AVE #E
HIGHLAND, CA 92346
SAN BERNARDINO COUNTY

MOST RECENT INSPECTOR:
DANNY HO
MOST RECENT SUPERVISOR:
RICHARD HUBBELL
CENSUS TRACT: 6071007604
CALENVIROSCREEN PERCENTILE SCORE: 96-100% (highest scores)

Enforcement / Inspections | Permitting | Corrective Action | Related Sites | CalEnviroScreen

INSPECTION TIMELINE

◆ = Class 1 Violation ◆ = Class 2 Violation ◆ = Minor Violation ◆ = Inspection - No Violations - Colored Circles = Financial Reviews



ENFORCEMENT ACTIONS

TITLE/DESCRIPTION	ISSUED / COMPLETED DATE
Consent Order with Enforcement and Settlement - Federal CA/FO (385)	8/27/2001

COMPLETED INSPECTIONS

TITLE/DESCRIPTION	INSP DATE	VIOLATION(S)	REPORT SENT DATE	RETURN TO COMPLIANCE DATE
Financial Records Review - Treatment, Storage and Disposal	12/13/2016	No Violations	12/13/2016	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	11/30/2016	Minor	1/27/2017	11/30/2016
Financial Records Review - Treatment, Storage and Disposal	1/2/2015	No Violations	1/5/2015	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	11/10/2014	No Violations	1/14/2015	
Financial Records Review - Treatment, Storage and Disposal	12/7/2012	No Violations	12/7/2012	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	9/27/2012	Minor	11/20/2012	9/27/2012
Financial Records Review - Treatment, Storage and Disposal	12/8/2010	No Violations	12/8/2010	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	11/9/2010	No Violations	12/6/2010	
Financial Records Review - Treatment, Storage and Disposal	1/13/2009	Minor	1/14/2009	2/18/2009
Compliance Evaluation Inspection - Treatment, Storage and Disposal	12/22/2008	No Violations	2/18/2009	
Financial Records Review - Treatment, Storage and Disposal	10/31/2007	No Violations	11/7/2007	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	10/22/2007	Minor	12/7/2007	10/23/2007
Financial Records Review - Treatment, Storage and Disposal	9/26/2006	Minor	10/6/2006	9/26/2006
Compliance Evaluation Inspection - Treatment, Storage and Disposal	9/19/2006	No Violations	10/13/2006	
Financial Records Review - Treatment, Storage and Disposal	11/4/2005	No Violations	11/16/2005	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	10/25/2005	Class 2	11/22/2005	3/16/2006
Financial Records Review - Treatment, Storage and Disposal	6/7/2005	No Violations	6/20/2005	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	1/25/2005	No Violations	4/5/2005	
Financial Records Review - Treatment, Storage and Disposal	11/26/2003	No Violations	12/11/2003	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	11/19/2003	No Violations	12/31/2003	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	8/27/2001	No Violations	9/18/2001	
Compliance Evaluation Inspection - Treatment, Storage and Disposal	8/25/2000	Class 1, Minor	9/18/2000	10/5/2000
Compliance Evaluation Inspection - Treatment, Storage and Disposal	7/20/1999	No Violations	8/11/1999	

APPENDIX 8a

Preliminary Hydrology Study

PRELIMINARY HYDROLOGY AND CHANNEL DESIGN FOR CITY CREEK BY-PASS CHANNEL

CITY OF SAN BERNARDINO
CALIFORNIA

PREPARED FOR:

TOM DODSON & ASSOCIATES
2150 N. ARROWHEAD AVENUE
SAN BERNARDINO, CA 92405
(909) 882-3612

PREPARED BY:

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36263 CALLE DE LOBO
MURRIETA, CA 92562
PH. 951.304.9552
FAX 951.304.3568

APRIL 20, 2020

This report has been prepared by or under the direction of the following registered civil engineer who attests to the technical information contained herein. The registered civil engineer has also judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.



04/20/2020

Joseph L. Castaneda RCE 59835 Registered Civil Engineer	Date	Seal

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I. PURPOSE AND SCOPE

The purpose of this study is to determine the peak flow rates for the City Creek By-Pass Channel. The City Creek By-Pass Channel is located along 3rd Street and 5th Street and extends from Warm Creek Channel at the downstream terminus and terminates at City Creek Channel just north of the State Route 30 and 5th Street Interchange, see Figure 1. The City Creek By-Pass Channel has been identified by San Bernardino County Flood Control District as a regional channel system that is part of the Comprehensive Storm Drain Plan Number 6 (CSDP #6) that was prepared by Exponent Analysis dated August 2001. The purpose of the study is to determine the peak flow rates for the City Creek By-Pass Channel based on an updated land use that has been proposed for the project area.

The scope of the study includes the following:

1. Determination of points of flow concentration and watershed subareas tributary to City Creek By-Pass Channel.
2. Determination of the 100-year peak storm flows based upon the ultimate condition tributary drainage area utilizing the Rational Method and Unit Hydrograph Method as outlined in the San Bernardino County Flood Control Hydrology Manual.
3. Develop a preliminary channel design that will function within the existing right-of-way that can convey the 100-year storm event. The proposed channel design will develop an approach that can be considered environmentally feasible.
4. Preparation of a report which consist of hydrological and analytical results and exhibits.

II. PROJECT SITE AND DRAINAGE AREA OVERVIEW

The City Creek By-Pass Channel is a proposed regional storm drain system that has been identified by CSPD #6. The channel system was proposed as a trapezoidal concrete lined channel that had a base width of 40 feet and a depth of 5 feet. CSPD #6 established flow rates that ranged from 878 ft^3/s at Palm Avenue to 1,618 ft^3/s at Warm Creek Channel, see Excerpt A. The proposed channel is located along the existing City Creek By-Pass Channel which is a soft bottom channel with wire-revetment to control lateral erosion. The existing channel does not have the capacity to convey the runoff from the tributary area due to the undersized culverts that existing along the existing channel alignment. The existing runoff from the area drains in the east to west direction. The major streets that are located in the north to south direction behave like interceptor channels. These major streets convey the runoff towards City Creek By-Pass Channel. The overall tributary area is approximately 1,750 acres and has been illustrated in Figure 2 along with the City Creek By-Pass Channel. The City Creek By-Pass Channel project is located in the City of San Bernardino and the City of Highland.

The IVDA has contracted a study to assess land use and planning uses for the overall area that is tributary to City Creek By-Pass Channel. As part of the study, JLC performed hydrology analyses that evaluated the 1,750 acre watershed using the updated land uses and

planning areas envisioned for the area. The hydrology analyses focused on developing flow rates at four nodal points at the following locations:

1. Victoria Avenue and City Creek By-Pass Channel
2. Sterling Avenue and City Creek By-Pass Channel
3. Tippecanoe Avenue and City Creek By-Pass Channel
4. Warm Creek Channel and City Creek By-Pass Channel

These nodal points were used to perform comparison analyses with the flow rate values used in CSDP #6.

III. HYDROLOGY

The San Bernardino County Hydrology Manual (Reference 1), was used to develop the hydrological parameters for the hydrology analyses. The rational method and unit hydrograph method were used for the analyses and the computations were performed using the computer program developed by Civil Cadd/Civil Design.

The rainfall depths used in the hydrology calculations for the rational method and the unit hydrograph method are as follows:

Storm Event & Duration	Rainfall (inches)
100-Year, 1-Hour	1.35
100-Year, 6-Hour	2.84
100-Year, 24-Hour	5.42

The rainfall depths were obtained from NOAA Atlas 14, which has been included as Excerpt B.

The existing soil classification for the tributary watershed area consists of Hydrologic Soil Group "A" and a small minor area is defined as "D". Excerpt C includes the soil data from the National Resource Conservation Service Websoil Survey. An Antecedent Moisture Condition of II was used for the 100-year calculations.

Exhibit B was created to identify the land use for the watershed area. The land uses identified were based on the General Plan land use data obtained from the City of San Bernardino, the City of Highland and the IVDA Specific Plan land use and planning area. The developed areas were defined as areas that will have commercial/residential landscape covers and the open space areas were defined as open brush poor cover. The following Curve Numbers and pervious areas were used based on the land use types identified in Exhibit B:

Curve Numbers Pervious Ratios based on Land Use Type

Land Use Cover	Curve Number Number (Soil "A")	Curve Number Number (Soil "B")	Pervious Ratio
Commercial/Industrial	32		0.10
Low Density Residential	32		0.70
Medium Density	32		0.50
High Density Residential	32		0.20
Public/Institution	32		0.40
Office/Business Park	32		0.10
Open Space	32		1

In order to perform the hydrology analyses the San Bernardino County Hydrology Manual requires that watersheds over 640 acres use the Unit Hydrograph method to determine the peak flow rate for the tributary area. Moreover, the Unit Hydrograph model requires the time of concentration for the watershed area in order to compute the lag time. As a result, hydrology models using the rational method were developed for the City Creek By-Pass Channel. Exhibit A has been developed in order to identify the areas and the nodal points used in the hydrology model. The rational method calculations have been included in Appendix A and the unit hydrograph calculations have been included in Appendix B. The hydrology map, Exhibit A, provides the parameters used in the hydrology model. The following nodal points that were analyzed are listed below with the corresponding location:

1. Node 108 - Victoria Avenue and City Creek By-Pass Channel
2. Node 109 - Sterling Avenue and City Creek By-Pass Channel
3. Node 110 - Tippecanoe Avenue and City Creek By-Pass Channel
4. Node 111 - Warm Creek Channel and City Creek By-Pass Channel

The following table has been prepared to provide the peak flow rate and time of concentration based on the rational method hydrology:

Location	100 Year Flow Rate (ft^3/s)	Time of Concentration (min)
Node 108	1,277	35.34
Node 109	1,277	46.08
Node 110	1,478	54.95
Node 111	1,477	63.61

These flow rates should not be applied to the design since the results are from the rational method hydrology analyses.

The following table has been prepared to provide a comparative analysis between the flow rates developed as part of the hydrology and the flow rates identified in the CSDP#6 Hydrology Map:

Location	100 Year Flow Rate (ft^3/s)	CSDP #6 100 Year Flow Rate (ft^3/s)
Node 108	1,363	1,338
Node 109	1,363(1)	1,351
Node 110	1637	1,591
Node 111	1637(2)	1,618

Notes:
(1) The hydrology model flow rate at Node 109 is 1271 ft^3/s. Use upstream flow rate since the value is greater than the downstream flow rate.
(2) The hydrology model flow rate at Node 111 is 1615 ft^3/s. Use upstream flow rate since the value is greater than the downstream flow rate.

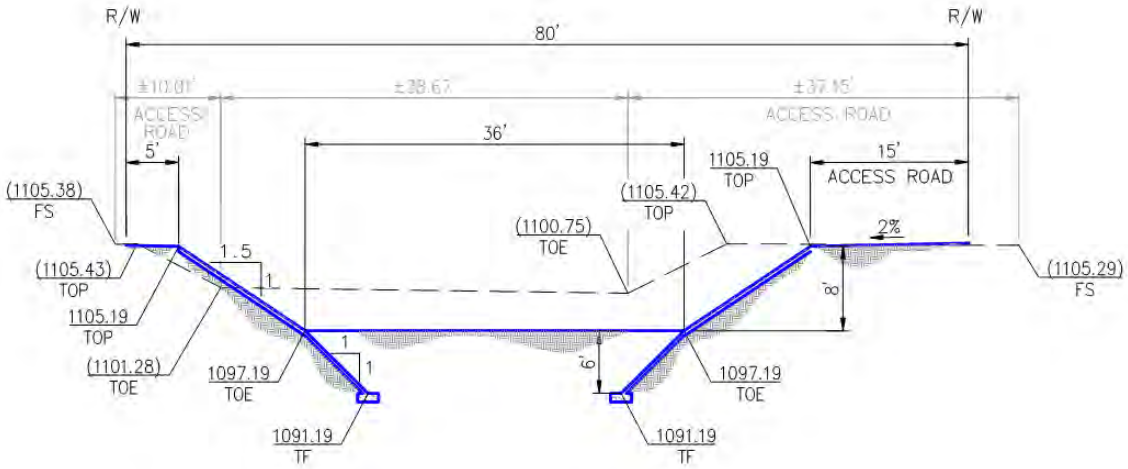
Based on the hydrology analyses performed for the watershed area tributary to City Creek By-Pass Channel, the flow rates developed for the study are within 2% to 3% of the flow rates developed for the CSDP #6 Study performed by Exponent Analysis. It can be concluded that the CSDP #6 used land use assumption that are similar to the land use assumption that were part of the City of San Bernardino General Plan, City of Highland General Plan and the IVDA Proposed Land Use Plan.

IV. CHANNEL DESIGN

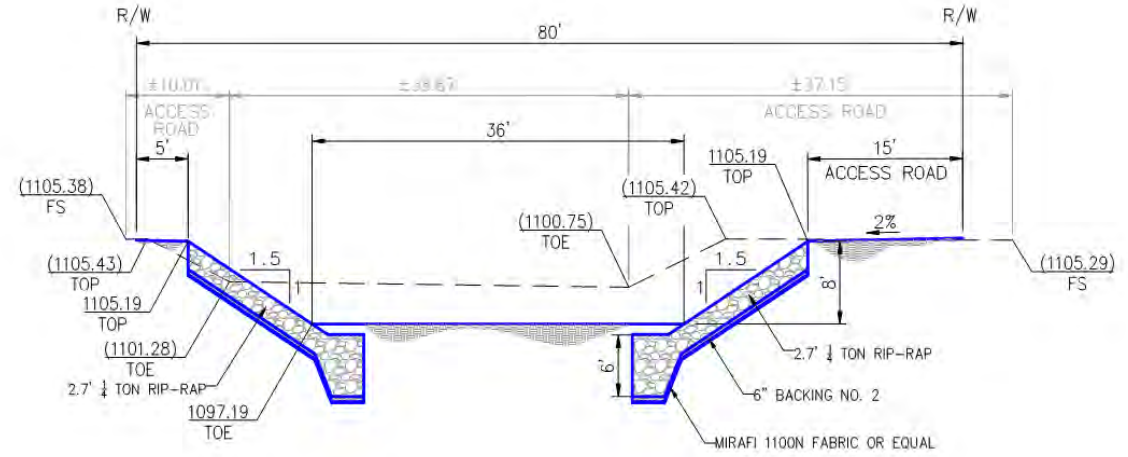
In conjunction with hydrology analyses, plan and profiles were created for the City Creek By-Pass Channel that extend from Warm Creek Channel to Victoria Avenue. The profiles were prepared at a scale of 1"=100' horizontally and 1"=10' vertically. The purpose of the preliminary channel design is to determine the lines and grades that can be used for the City Creek By-Pass Channel. The proposed alternatives have used the following types of channel cross sections:

1. A concrete lined side slopes with 1.5:1 side slopes and an earthen bottom with a base width that varies. The base width of the channel is controlled by the available right-of-way that exists. The base width ranges from 23 feet to 36 feet. The concrete lining will extend 6 feet below the channel to protect against channel degradation. See Section A-A.

2. A rip-rap lined side slope channel with 1.5:1 side slopes and an earthen lined base width that varies. The base width ranges from 23 feet to 36 feet. The channel will use a block of rip-rap protection that will collapse in case the channel bed begins to degrade. The block of rip-rap will extend 6 feet below the channel invert. See Section B-B.



Section A-A: Concreted Lined Side Slopes and Earthen Bottom



Section B-B: Rip-Rap Lined Side Slopes and Earthen Bottom

The design of these alternatives is required in order to provide a potential channel design that can be permitted with the resource agencies. The concrete lined channel identified in the CSDP #6 is not considered a viable alternative since the existing City Creek By-Pass Channel is considered a blue line stream and is subject to the regulations of the Clean Water Act and Porter -Cologne Water Quality Act.

A preliminary assessment for the design alternatives were performed in order to determine the depth of flow based on uniform-steady flow condition. In order to perform the analyses the FlowMaster Program was used to compute the normal depth of the channel using the corresponding flow rate for the reach. It should be noted that further detailed analyses will be required during final engineering to account for the proposed culvert crossings.

The following are the depths of flow for the proposed channel design alternatives:

Concrete Side Slope Channel / Earthen Bottom

Location	100 Year Flow Rate (ft^3/s)	Depth of Flow (ft)
Reach 1 – Warm Creek Channel to Tippecanoe	1,363	3.73
Reach 2 – Tippecanoe to Sterling	1,637	5.05
Reach 3 – Sterling to Victoria	1637	4.61

Rip-Rap Side Slope Channel / Earthen Bottom

Location	100 Year Flow Rate (ft^3/s)	Depth of Flow (ft)
Reach 1 – Warm Creek Channel to Tippecanoe	1,363	3.40
Reach 2 – Tippecanoe to Sterling	1,637	6.07
Reach 3 – Sterling to Victoria	1637	5.38

San Bernardino County Flood Control District typically uses the Los Angeles County Flood Control District Hydraulic Manual to establish design guidelines. The Los Angeles County Hydraulic Manual requires 2.5 feet of freeboard in the design of trapezoidal channels with velocities less than 35 ft/s. The preliminary hydraulic results indicate that the project has sufficient freeboard for the 100 year flow rate based on the depth of channels that range from 8 feet deep to 9 feet deep.

VI. FINDINGS

The hydrology analyses and preliminary channel design evaluated the City Creek By-Pass Channel system. The hydrology analyses indicated that the flow rates are comparable with the flow rates established by the CSDP #6 which is the master drainage plan for the regional facilities required for the area. Based on the hydrology analyses and the proposed channel design alternatives, the proposed City Creek Channel By-Pass has sufficient capacity to convey the 100 year flow rates and mitigate impacts associated with flooding within the watershed area.

VII. REFERENCES

1. San Bernardino Flood Control Hydrology Manual, August 1986.
2. Los Angeles County Flood Control Hydraulic Manual, March 1982
3. Comprehensive Storm Drain Plan (CSDP) No. 6, Exponent, August 2001

FIGURES

FIGURE 1: VICINITY MAP



IVDA 3RD AND 6TH STREET SPECIFIC PLAN VICINITY MAP

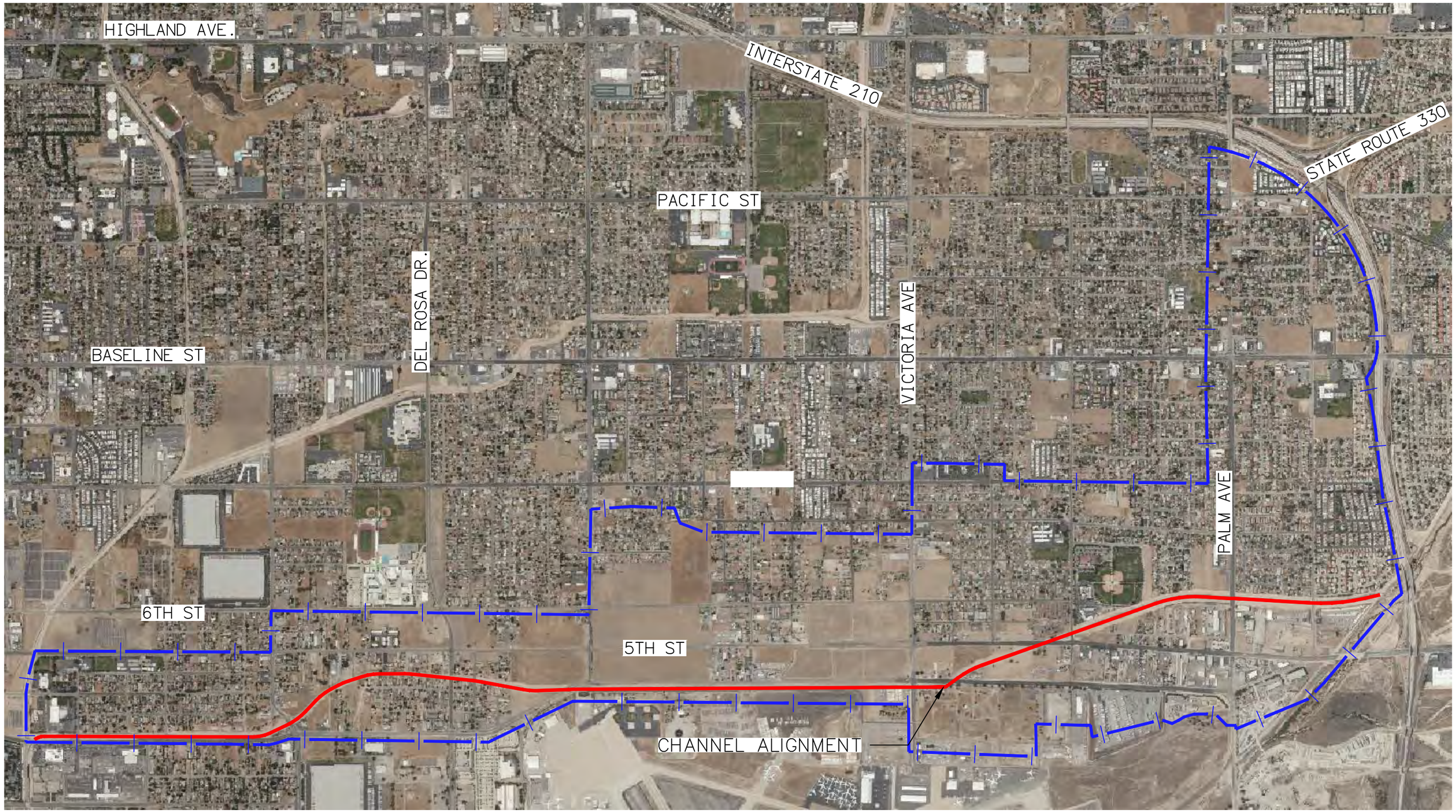
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JLC Engineering & Consulting, Inc.
41660 IVY STREET, SUITE A
MURRIETA, CA 92562
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FIGURE 1

Drawing Name: O:\254.01.17\Engineering\Hydrology_Plan\Exhibits\Figures\Figure 1 - Vicinity Map.dwg
Last Opened: Apr 15, 2020 - 4:28pm by bwiltzen

FIGURE 2: CHANNEL ALIGNMENT AND WATERSHED MAP



IVDA 3RD AND 6TH STREET SPECIFIC PLAN
CHANNEL ALIGNMENT AND WATERSHED

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FIGURE 2

Drawing Name: O:\254.01.17\Engineering\Hydrology_Plan\Exhibits\Figures\Figure 2 - Watershed & Channel Alignment.dwg
Last Opened: Apr 15, 2020 - 4:17pm by bwiltzen

APPENDICES

APPENDIX A: ULTIMATE CONDITION RATIONAL METHOD HYDROLOGY – 100 YEAR

APPENDIX A.1: RATIONAL METHOD ANALYSIS, NODE 108

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/16/20

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR RATIONAL TABLING METHOD
FN: ARA108.RSB

Program License Serial Number 6269

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.350 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++
Process from Point/Station 101.000 to Point/Station 102.000
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.4200 Max loss rate(Fm)= 0.411(In/Hr)
Initial subarea data:
Initial area flow distance = 534.000(Ft.)
Top (of initial area) elevation = 1334.000(Ft.)
Bottom (of initial area) elevation = 1318.000(Ft.)
Difference in elevation = 16.000(Ft.)
Slope = 0.02996 s(%)= 3.00
TC = k(0.378)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.403 min.
Rainfall intensity = 4.104(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.810
Subarea runoff = 16.955(CFS)
Total initial stream area = 5.100(Ac.)
Pervious area fraction = 0.420
Initial area Fm value = 0.411(In/Hr)

++
Process from Point/Station 102.000 to Point/Station 103.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 1318.000(Ft.)
End of street segment elevation = 1291.000(Ft.)
Length of street segment = 898.000(Ft.)
Height of curb above gutter flowline = 6.0(In.)
Width of half street (curb to crown) = 22.000(Ft.)
Distance from crown to crossfall grade break = 18.000(Ft.)
Slope from gutter to grade break (v/hz) = 0.020
Slope from grade break to crown (v/hz) = 0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line = 10.000(Ft.)
Slope from curb to property line (v/hz) = 0.025
Gutter width = 2.000(Ft.)
Gutter hike from flowline = 2.000(In.)
Manning's N in gutter = 0.0150
Manning's N from gutter to grade break = 0.0150

```
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     73.754(CFS)
Depth of flow =   0.599(Ft.), Average velocity =   6.291(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    3.94(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   6.29(Ft/s)
Travel time =    2.38 min.     TC =   11.78  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.2200     Max loss rate(Fm)=     0.215(In/Hr)
Rainfall intensity =      3.585(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.840
Subarea runoff =    113.470(CFS) for   38.200(Ac.)
Total runoff =    130.425(CFS)
Effective area this stream =       43.30(Ac.)
Total Study Area (Main Stream No. 1) =       43.30(Ac.)
Area averaged Fm value =    0.238(In/Hr)
Street flow at end of street =    130.425(CFS)
Half street flow at end of street =     65.212(CFS)
Depth of flow =   0.701(Ft.), Average velocity =   7.457(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    8.06(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      104.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1291.000(Ft.)
End of street segment elevation =  1242.000(Ft.)
Length of street segment  =  1677.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    239.797(CFS)
Depth of flow =   0.837(Ft.), Average velocity =   9.203(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   13.47(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   9.20(Ft/s)
Travel time =    3.04 min.     TC =   14.82  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=     0.508(In/Hr)
Rainfall intensity =      3.124(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.777
Subarea runoff =    218.627(CFS) for  100.500(Ac.)
Total runoff =    349.052(CFS)
```

```
Effective area this stream =      143.80(Ac.)
Total Study Area (Main Stream No. 1) =      143.80(Ac.)
Area averaged Fm value =    0.427(In/Hr)
Street flow at end of street =    349.052(CFS)
Half street flow at end of street =    174.526(CFS)
Depth of flow =   0.940(Ft.), Average velocity =  10.695(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   17.59(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      104.000 to Point/Station      105.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1242.000(Ft.)
End of street segment elevation =  1202.000(Ft.)
Length of street segment  =  2393.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    473.053(CFS)
Depth of flow =   1.153(Ft.), Average velocity =  10.214(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   26.13(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =  10.21(Ft/s)
Travel time =    3.90 min.     TC =   18.72  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5400     Max loss rate(Fm)=     0.528(In/Hr)
Rainfall intensity =      2.715(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.741
Subarea runoff =    247.833(CFS) for  152.800(Ac.)
Total runoff =    596.886(CFS)
Effective area this stream =      296.60(Ac.)
Total Study Area (Main Stream No. 1) =      296.60(Ac.)
Area averaged Fm value =    0.479(In/Hr)
Street flow at end of street =    596.886(CFS)
Half street flow at end of street =    298.443(CFS)
Depth of flow =   1.262(Ft.), Average velocity =  11.210(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   30.47(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      105.000 to Point/Station      106.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1202.000(Ft.)
End of street segment elevation =  1194.000(Ft.)
Length of street segment  =  2317.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
```

```
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    673.675(CFS)
Depth of flow =   1.866(Ft.), Average velocity =   7.331(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   54.62(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   7.33(Ft/s)
Travel time =    5.27 min.     TC =   23.99  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 35.36
Pervious ratio(Ap) = 0.6100     Max loss rate(Fm)=     0.583(In/Hr)
Rainfall intensity =      2.340(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.702
Subarea runoff =    153.460(CFS) for  160.400(Ac.)
Total runoff =    750.345(CFS)
Effective area this stream =      457.00(Ac.)
Total Study Area (Main Stream No. 1) =      457.00(Ac.)
Area averaged Fm value =    0.516(In/Hr)
Street flow at end of street =    750.345(CFS)
Half street flow at end of street =    375.173(CFS)
Depth of flow =   1.962(Ft.), Average velocity =   7.654(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   58.46(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      106.000 to Point/Station      107.000
**** IMPROVED CHANNEL TRAVEL TIME ****
------------------------------------------------------------------------
Upstream point elevation =  1194.000(Ft.)
Downstream point elevation =  1166.000(Ft.)
Channel length thru subarea  =  2722.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =    773.416(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =    773.416(CFS)
Depth of flow =   2.943(Ft.), Average velocity =   8.271(Ft/s)
Channel flow top width =   43.546(Ft.)
Flow Velocity =    8.27(Ft/s)
Travel time  =    5.49 min.
Time of concentration =   29.48 min.
Critical depth =      2.938(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 33.50
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.581(In/Hr)
Rainfall intensity =      2.068(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.670
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Subarea runoff =     46.052(CFS) for  118.000(Ac.)
Total runoff =    796.397(CFS)
Effective area this stream =      575.00(Ac.)
Total Study Area (Main Stream No. 1) =      575.00(Ac.)
Area averaged Fm value =    0.529(In/Hr)
Depth of flow =   2.988(Ft.), Average velocity =   8.340(Ft/s)
Critical depth =      2.969(Ft.)


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Process from Point/Station      107.000 to Point/Station      108.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1166.000(Ft.)
Downstream point elevation =  1142.000(Ft.)
Channel length thru subarea  =  2918.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1036.487(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1036.487(CFS)
Depth of flow =   3.625(Ft.), Average velocity =   8.289(Ft/s)
Channel flow top width =   48.997(Ft.)
Flow Velocity =    8.29(Ft/s)
Travel time  =    5.87 min.
Time of concentration =   35.34 min.
Critical depth =      3.438(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.38
Pervious ratio(Ap) = 0.4100     Max loss rate(Fm)=     0.400(In/Hr)
Rainfall intensity =      1.855(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.671
Subarea runoff =    480.092(CFS) for  451.100(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1026.10(Ac.)
Total Study Area (Main Stream No. 1) =     1026.10(Ac.)
Area averaged Fm value =    0.472(In/Hr)
Depth of flow =   4.022(Ft.), Average velocity =   8.795(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)
End of computations, Total Study Area =         1026.10 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.486
Area averaged SCS curve number =  32.9
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APPENDIX A.2: RATIONAL METHOD ANALYSIS, NODE 109

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/16/20

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR RATIONAL TABLING METHOD
FN: ARA109.RSB

Program License Serial Number 6269

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.350 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

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Process from Point/Station 101.000 to Point/Station 102.000
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.4200 Max loss rate(Fm)= 0.411(In/Hr)
Initial subarea data:
Initial area flow distance = 534.000(Ft.)
Top (of initial area) elevation = 1334.000(Ft.)
Bottom (of initial area) elevation = 1318.000(Ft.)
Difference in elevation = 16.000(Ft.)
Slope = 0.02996 s(%)= 3.00
TC = k(0.378)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.403 min.
Rainfall intensity = 4.104(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.810
Subarea runoff = 16.955(CFS)
Total initial stream area = 5.100(Ac.)
Pervious area fraction = 0.420
Initial area Fm value = 0.411(In/Hr)

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Process from Point/Station 102.000 to Point/Station 103.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 1318.000(Ft.)
End of street segment elevation = 1291.000(Ft.)
Length of street segment = 898.000(Ft.)
Height of curb above gutter flowline = 6.0(In.)
Width of half street (curb to crown) = 22.000(Ft.)
Distance from crown to crossfall grade break = 18.000(Ft.)
Slope from gutter to grade break (v/hz) = 0.020
Slope from grade break to crown (v/hz) = 0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line = 10.000(Ft.)
Slope from curb to property line (v/hz) = 0.025
Gutter width = 2.000(Ft.)
Gutter hike from flowline = 2.000(In.)
Manning's N in gutter = 0.0150
Manning's N from gutter to grade break = 0.0150

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 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     73.754(CFS)
Depth of flow =   0.599(Ft.), Average velocity =   6.291(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    3.94(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   6.29(Ft/s)
Travel time =    2.38 min.     TC =   11.78  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.2200     Max loss rate(Fm)=     0.215(In/Hr)
Rainfall intensity =      3.585(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.840
Subarea runoff =    113.470(CFS) for   38.200(Ac.)
Total runoff =    130.425(CFS)
Effective area this stream =       43.30(Ac.)
Total Study Area (Main Stream No. 1) =       43.30(Ac.)
Area averaged Fm value =    0.238(In/Hr)
Street flow at end of street =    130.425(CFS)
Half street flow at end of street =     65.212(CFS)
Depth of flow =   0.701(Ft.), Average velocity =   7.457(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    8.06(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      103.000 to Point/Station      104.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1291.000(Ft.)
End of street segment elevation =  1242.000(Ft.)
Length of street segment  =  1677.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    239.797(CFS)
Depth of flow =   0.837(Ft.), Average velocity =   9.203(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   13.47(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   9.20(Ft/s)
Travel time =    3.04 min.     TC =   14.82  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=     0.508(In/Hr)
Rainfall intensity =      3.124(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.777
Subarea runoff =    218.627(CFS) for  100.500(Ac.)
Total runoff =    349.052(CFS)
```

```
Effective area this stream =      143.80(Ac.)
Total Study Area (Main Stream No. 1) =      143.80(Ac.)
Area averaged Fm value =    0.427(In/Hr)
Street flow at end of street =    349.052(CFS)
Half street flow at end of street =    174.526(CFS)
Depth of flow =   0.940(Ft.), Average velocity =  10.695(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   17.59(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      104.000 to Point/Station      105.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1242.000(Ft.)
End of street segment elevation =  1202.000(Ft.)
Length of street segment  =  2393.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    473.053(CFS)
Depth of flow =   1.153(Ft.), Average velocity =  10.214(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   26.13(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =  10.21(Ft/s)
Travel time =    3.90 min.     TC =   18.72  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5400     Max loss rate(Fm)=     0.528(In/Hr)
Rainfall intensity =      2.715(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.741
Subarea runoff =    247.833(CFS) for  152.800(Ac.)
Total runoff =    596.886(CFS)
Effective area this stream =      296.60(Ac.)
Total Study Area (Main Stream No. 1) =      296.60(Ac.)
Area averaged Fm value =    0.479(In/Hr)
Street flow at end of street =    596.886(CFS)
Half street flow at end of street =    298.443(CFS)
Depth of flow =   1.262(Ft.), Average velocity =  11.210(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   30.47(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      105.000 to Point/Station      106.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1202.000(Ft.)
End of street segment elevation =  1194.000(Ft.)
Length of street segment  =  2317.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
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```
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    673.675(CFS)
Depth of flow =   1.866(Ft.), Average velocity =   7.331(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   54.62(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   7.33(Ft/s)
Travel time =    5.27 min.     TC =   23.99  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 35.36
Pervious ratio(Ap) = 0.6100     Max loss rate(Fm)=     0.583(In/Hr)
Rainfall intensity =      2.340(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.702
Subarea runoff =    153.460(CFS) for  160.400(Ac.)
Total runoff =    750.345(CFS)
Effective area this stream =      457.00(Ac.)
Total Study Area (Main Stream No. 1) =      457.00(Ac.)
Area averaged Fm value =    0.516(In/Hr)
Street flow at end of street =    750.345(CFS)
Half street flow at end of street =    375.173(CFS)
Depth of flow =   1.962(Ft.), Average velocity =   7.654(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   58.46(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      106.000 to Point/Station      107.000
**** IMPROVED CHANNEL TRAVEL TIME ****
------------------------------------------------------------------------
Upstream point elevation =  1194.000(Ft.)
Downstream point elevation =  1166.000(Ft.)
Channel length thru subarea  =  2722.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =    773.416(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =    773.416(CFS)
Depth of flow =   2.943(Ft.), Average velocity =   8.271(Ft/s)
Channel flow top width =   43.546(Ft.)
Flow Velocity =    8.27(Ft/s)
Travel time  =    5.49 min.
Time of concentration =   29.48 min.
Critical depth =      2.938(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 33.50
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.581(In/Hr)
Rainfall intensity =      2.068(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.670
```

```
Subarea runoff =     46.052(CFS) for  118.000(Ac.)
Total runoff =    796.397(CFS)
Effective area this stream =      575.00(Ac.)
Total Study Area (Main Stream No. 1) =      575.00(Ac.)
Area averaged Fm value =    0.529(In/Hr)
Depth of flow =   2.988(Ft.), Average velocity =   8.340(Ft/s)
Critical depth =      2.969(Ft.)


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Process from Point/Station      107.000 to Point/Station      108.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1166.000(Ft.)
Downstream point elevation =  1142.000(Ft.)
Channel length thru subarea  =  2918.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1036.487(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1036.487(CFS)
Depth of flow =   3.625(Ft.), Average velocity =   8.289(Ft/s)
Channel flow top width =   48.997(Ft.)
Flow Velocity =    8.29(Ft/s)
Travel time  =    5.87 min.
Time of concentration =   35.34 min.
Critical depth =      3.438(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.38
Pervious ratio(Ap) = 0.4100     Max loss rate(Fm)=     0.400(In/Hr)
Rainfall intensity =      1.855(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.671
Subarea runoff =    480.092(CFS) for  451.100(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1026.10(Ac.)
Total Study Area (Main Stream No. 1) =     1026.10(Ac.)
Area averaged Fm value =    0.472(In/Hr)
Depth of flow =   4.022(Ft.), Average velocity =   8.795(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      108.000 to Point/Station      109.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1142.000(Ft.)
Downstream point elevation =  1104.000(Ft.)
Channel length thru subarea  =  5404.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1276.517(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1276.517(CFS)
Depth of flow =   4.156(Ft.), Average velocity =   8.391(Ft/s)
!!Warning: Water is above left or right bank elevations
Channel flow top width =   52.000(Ft.)
Flow Velocity =    8.39(Ft/s)
Travel time  =   10.73 min.
Time of concentration =   46.08 min.
Critical depth =      3.875(Ft.)
ERROR - Channel depth exceeds maximum allowable depth
 Adding area flow to channel
```

```
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.3300     Max loss rate(Fm)=     0.323(In/Hr)
The area added to the existing stream causes a
a lower flow rate of Q =   1129.363(CFS)
therefore the upstream flow rate of Q =   1276.489(CFS) is being used
Rainfall intensity =      1.582(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.638
Subarea runoff =      0.000(CFS) for   92.500(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1118.60(Ac.)
Total Study Area (Main Stream No. 1) =     1118.60(Ac.)
Area averaged Fm value =    0.460(In/Hr)
Depth of flow =   4.156(Ft.), Average velocity =   8.391(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)
End of computations, Total Study Area =         1118.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.473
Area averaged SCS curve number =  32.8
```

APPENDIX A.3: RATIONAL METHOD ANALYSIS, NODE 110

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/16/20

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR RATIONAL TABLING METHOD
FN: ARA110.RSB

Program License Serial Number 6269

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.350 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 101.000 to Point/Station 102.000
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.4200 Max loss rate(Fm)= 0.411(In/Hr)
Initial subarea data:
Initial area flow distance = 534.000(Ft.)
Top (of initial area) elevation = 1334.000(Ft.)
Bottom (of initial area) elevation = 1318.000(Ft.)
Difference in elevation = 16.000(Ft.)
Slope = 0.02996 s(%)= 3.00
TC = k(0.378)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.403 min.
Rainfall intensity = 4.104(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.810
Subarea runoff = 16.955(CFS)
Total initial stream area = 5.100(Ac.)
Pervious area fraction = 0.420
Initial area Fm value = 0.411(In/Hr)

++

Process from Point/Station 102.000 to Point/Station 103.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 1318.000(Ft.)
End of street segment elevation = 1291.000(Ft.)
Length of street segment = 898.000(Ft.)
Height of curb above gutter flowline = 6.0(In.)
Width of half street (curb to crown) = 22.000(Ft.)
Distance from crown to crossfall grade break = 18.000(Ft.)
Slope from gutter to grade break (v/hz) = 0.020
Slope from grade break to crown (v/hz) = 0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line = 10.000(Ft.)
Slope from curb to property line (v/hz) = 0.025
Gutter width = 2.000(Ft.)
Gutter hike from flowline = 2.000(In.)
Manning's N in gutter = 0.0150
Manning's N from gutter to grade break = 0.0150

```
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     73.754(CFS)
Depth of flow =   0.599(Ft.), Average velocity =   6.291(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    3.94(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   6.29(Ft/s)
Travel time =    2.38 min.     TC =   11.78  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.2200     Max loss rate(Fm)=     0.215(In/Hr)
Rainfall intensity =      3.585(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.840
Subarea runoff =    113.470(CFS) for   38.200(Ac.)
Total runoff =    130.425(CFS)
Effective area this stream =       43.30(Ac.)
Total Study Area (Main Stream No. 1) =       43.30(Ac.)
Area averaged Fm value =    0.238(In/Hr)
Street flow at end of street =    130.425(CFS)
Half street flow at end of street =     65.212(CFS)
Depth of flow =   0.701(Ft.), Average velocity =   7.457(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    8.06(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      104.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1291.000(Ft.)
End of street segment elevation =  1242.000(Ft.)
Length of street segment  =  1677.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    239.797(CFS)
Depth of flow =   0.837(Ft.), Average velocity =   9.203(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   13.47(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   9.20(Ft/s)
Travel time =    3.04 min.     TC =   14.82  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=     0.508(In/Hr)
Rainfall intensity =      3.124(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.777
Subarea runoff =    218.627(CFS) for  100.500(Ac.)
Total runoff =    349.052(CFS)
```

```
Effective area this stream =      143.80(Ac.)
Total Study Area (Main Stream No. 1) =      143.80(Ac.)
Area averaged Fm value =    0.427(In/Hr)
Street flow at end of street =    349.052(CFS)
Half street flow at end of street =    174.526(CFS)
Depth of flow =   0.940(Ft.), Average velocity =  10.695(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   17.59(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      104.000 to Point/Station      105.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1242.000(Ft.)
End of street segment elevation =  1202.000(Ft.)
Length of street segment  =  2393.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    473.053(CFS)
Depth of flow =   1.153(Ft.), Average velocity =  10.214(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   26.13(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =  10.21(Ft/s)
Travel time =    3.90 min.     TC =   18.72  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5400     Max loss rate(Fm)=     0.528(In/Hr)
Rainfall intensity =      2.715(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.741
Subarea runoff =    247.833(CFS) for  152.800(Ac.)
Total runoff =    596.886(CFS)
Effective area this stream =      296.60(Ac.)
Total Study Area (Main Stream No. 1) =      296.60(Ac.)
Area averaged Fm value =    0.479(In/Hr)
Street flow at end of street =    596.886(CFS)
Half street flow at end of street =    298.443(CFS)
Depth of flow =   1.262(Ft.), Average velocity =  11.210(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   30.47(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      105.000 to Point/Station      106.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1202.000(Ft.)
End of street segment elevation =  1194.000(Ft.)
Length of street segment  =  2317.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
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```
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    673.675(CFS)
Depth of flow =   1.866(Ft.), Average velocity =   7.331(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   54.62(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   7.33(Ft/s)
Travel time =    5.27 min.     TC =   23.99  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 35.36
Pervious ratio(Ap) = 0.6100     Max loss rate(Fm)=     0.583(In/Hr)
Rainfall intensity =      2.340(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.702
Subarea runoff =    153.460(CFS) for  160.400(Ac.)
Total runoff =    750.345(CFS)
Effective area this stream =      457.00(Ac.)
Total Study Area (Main Stream No. 1) =      457.00(Ac.)
Area averaged Fm value =    0.516(In/Hr)
Street flow at end of street =    750.345(CFS)
Half street flow at end of street =    375.173(CFS)
Depth of flow =   1.962(Ft.), Average velocity =   7.654(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   58.46(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      106.000 to Point/Station      107.000
**** IMPROVED CHANNEL TRAVEL TIME ****
------------------------------------------------------------------------
Upstream point elevation =  1194.000(Ft.)
Downstream point elevation =  1166.000(Ft.)
Channel length thru subarea  =  2722.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =    773.416(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =    773.416(CFS)
Depth of flow =   2.943(Ft.), Average velocity =   8.271(Ft/s)
Channel flow top width =   43.546(Ft.)
Flow Velocity =    8.27(Ft/s)
Travel time  =    5.49 min.
Time of concentration =   29.48 min.
Critical depth =      2.938(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 33.50
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.581(In/Hr)
Rainfall intensity =      2.068(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.670
```

```
Subarea runoff =     46.052(CFS) for  118.000(Ac.)
Total runoff =    796.397(CFS)
Effective area this stream =      575.00(Ac.)
Total Study Area (Main Stream No. 1) =      575.00(Ac.)
Area averaged Fm value =    0.529(In/Hr)
Depth of flow =   2.988(Ft.), Average velocity =   8.340(Ft/s)
Critical depth =      2.969(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      107.000 to Point/Station      108.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1166.000(Ft.)
Downstream point elevation =  1142.000(Ft.)
Channel length thru subarea  =  2918.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1036.487(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1036.487(CFS)
Depth of flow =   3.625(Ft.), Average velocity =   8.289(Ft/s)
Channel flow top width =   48.997(Ft.)
Flow Velocity =    8.29(Ft/s)
Travel time  =    5.87 min.
Time of concentration =   35.34 min.
Critical depth =      3.438(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.38
Pervious ratio(Ap) = 0.4100     Max loss rate(Fm)=     0.400(In/Hr)
Rainfall intensity =      1.855(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.671
Subarea runoff =    480.092(CFS) for  451.100(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1026.10(Ac.)
Total Study Area (Main Stream No. 1) =     1026.10(Ac.)
Area averaged Fm value =    0.472(In/Hr)
Depth of flow =   4.022(Ft.), Average velocity =   8.795(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      108.000 to Point/Station      109.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1142.000(Ft.)
Downstream point elevation =  1104.000(Ft.)
Channel length thru subarea  =  5404.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1276.517(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1276.517(CFS)
Depth of flow =   4.156(Ft.), Average velocity =   8.391(Ft/s)
!!Warning: Water is above left or right bank elevations
Channel flow top width =   52.000(Ft.)
Flow Velocity =    8.39(Ft/s)
Travel time  =   10.73 min.
Time of concentration =   46.08 min.
Critical depth =      3.875(Ft.)
ERROR - Channel depth exceeds maximum allowable depth
 Adding area flow to channel
```

```
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.3300     Max loss rate(Fm)=     0.323(In/Hr)
The area added to the existing stream causes a
a lower flow rate of Q =   1129.363(CFS)
therefore the upstream flow rate of Q =   1276.489(CFS) is being used
Rainfall intensity =      1.582(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.638
Subarea runoff =      0.000(CFS) for   92.500(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1118.60(Ac.)
Total Study Area (Main Stream No. 1) =     1118.60(Ac.)
Area averaged Fm value =    0.460(In/Hr)
Depth of flow =   4.156(Ft.), Average velocity =   8.391(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      109.000 to Point/Station      110.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1104.000(Ft.)
Downstream point elevation =  1060.000(Ft.)
Channel length thru subarea  =  4941.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1377.016(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1377.016(CFS)
Depth of flow =   4.083(Ft.), Average velocity =   9.284(Ft/s)
!!Warning: Water is above left or right bank elevations
Channel flow top width =   52.000(Ft.)
Flow Velocity =    9.28(Ft/s)
Travel time  =    8.87 min.
Time of concentration =   54.95 min.
Critical depth =      4.031(Ft.)
ERROR - Channel depth exceeds maximum allowable depth
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.2700     Max loss rate(Fm)=     0.264(In/Hr)
Rainfall intensity =      1.423(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.647
Subarea runoff =    200.994(CFS) for  486.700(Ac.)
Total runoff =   1477.483(CFS)
Effective area this stream =     1605.30(Ac.)
Total Study Area (Main Stream No. 1) =     1605.30(Ac.)
Area averaged Fm value =    0.401(In/Hr)
Depth of flow =   4.206(Ft.), Average velocity =   9.549(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      4.156(Ft.)
End of computations, Total Study Area =         1605.30 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.412
Area averaged SCS curve number =  32.6
```

APPENDIX A.4: RATIONAL METHOD ANALYSIS, NODE 111

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/16/20

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR RATIONAL TABLING METHOD
FN: ARA111.RSB

Program License Serial Number 6269

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.350 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 101.000 to Point/Station 102.000
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.4200 Max loss rate(Fm)= 0.411(In/Hr)
Initial subarea data:
Initial area flow distance = 534.000(Ft.)
Top (of initial area) elevation = 1334.000(Ft.)
Bottom (of initial area) elevation = 1318.000(Ft.)
Difference in elevation = 16.000(Ft.)
Slope = 0.02996 s(%)= 3.00
TC = k(0.378)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.403 min.
Rainfall intensity = 4.104(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.810
Subarea runoff = 16.955(CFS)
Total initial stream area = 5.100(Ac.)
Pervious area fraction = 0.420
Initial area Fm value = 0.411(In/Hr)

++

Process from Point/Station 102.000 to Point/Station 103.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 1318.000(Ft.)
End of street segment elevation = 1291.000(Ft.)
Length of street segment = 898.000(Ft.)
Height of curb above gutter flowline = 6.0(In.)
Width of half street (curb to crown) = 22.000(Ft.)
Distance from crown to crossfall grade break = 18.000(Ft.)
Slope from gutter to grade break (v/hz) = 0.020
Slope from grade break to crown (v/hz) = 0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line = 10.000(Ft.)
Slope from curb to property line (v/hz) = 0.025
Gutter width = 2.000(Ft.)
Gutter hike from flowline = 2.000(In.)
Manning's N in gutter = 0.0150
Manning's N from gutter to grade break = 0.0150

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 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     73.754(CFS)
Depth of flow =   0.599(Ft.), Average velocity =   6.291(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    3.94(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   6.29(Ft/s)
Travel time =    2.38 min.     TC =   11.78  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.2200     Max loss rate(Fm)=     0.215(In/Hr)
Rainfall intensity =      3.585(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.840
Subarea runoff =    113.470(CFS) for   38.200(Ac.)
Total runoff =    130.425(CFS)
Effective area this stream =       43.30(Ac.)
Total Study Area (Main Stream No. 1) =       43.30(Ac.)
Area averaged Fm value =    0.238(In/Hr)
Street flow at end of street =    130.425(CFS)
Half street flow at end of street =     65.212(CFS)
Depth of flow =   0.701(Ft.), Average velocity =   7.457(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    8.06(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


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Process from Point/Station      103.000 to Point/Station      104.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1291.000(Ft.)
End of street segment elevation =  1242.000(Ft.)
Length of street segment  =  1677.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    239.797(CFS)
Depth of flow =   0.837(Ft.), Average velocity =   9.203(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   13.47(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   9.20(Ft/s)
Travel time =    3.04 min.     TC =   14.82  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=     0.508(In/Hr)
Rainfall intensity =      3.124(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.777
Subarea runoff =    218.627(CFS) for  100.500(Ac.)
Total runoff =    349.052(CFS)
```

```
Effective area this stream =      143.80(Ac.)
Total Study Area (Main Stream No. 1) =      143.80(Ac.)
Area averaged Fm value =    0.427(In/Hr)
Street flow at end of street =    349.052(CFS)
Half street flow at end of street =    174.526(CFS)
Depth of flow =   0.940(Ft.), Average velocity =  10.695(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   17.59(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      104.000 to Point/Station      105.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1242.000(Ft.)
End of street segment elevation =  1202.000(Ft.)
Length of street segment  =  2393.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    473.053(CFS)
Depth of flow =   1.153(Ft.), Average velocity =  10.214(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   26.13(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =  10.21(Ft/s)
Travel time =    3.90 min.     TC =   18.72  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.5400     Max loss rate(Fm)=     0.528(In/Hr)
Rainfall intensity =      2.715(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.741
Subarea runoff =    247.833(CFS) for  152.800(Ac.)
Total runoff =    596.886(CFS)
Effective area this stream =      296.60(Ac.)
Total Study Area (Main Stream No. 1) =      296.60(Ac.)
Area averaged Fm value =    0.479(In/Hr)
Street flow at end of street =    596.886(CFS)
Half street flow at end of street =    298.443(CFS)
Depth of flow =   1.262(Ft.), Average velocity =  11.210(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   30.47(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      105.000 to Point/Station      106.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1202.000(Ft.)
End of street segment elevation =  1194.000(Ft.)
Length of street segment  =  2317.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
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```
Width of half street (curb to crown)  =  22.000(Ft.)
Distance from crown to crossfall grade break  =  18.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.025
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =    673.675(CFS)
Depth of flow =   1.866(Ft.), Average velocity =   7.331(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   54.62(Ft.)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  22.000(Ft.)
Flow velocity =   7.33(Ft/s)
Travel time =    5.27 min.     TC =   23.99  min.
 Adding area flow to street
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 35.36
Pervious ratio(Ap) = 0.6100     Max loss rate(Fm)=     0.583(In/Hr)
Rainfall intensity =      2.340(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.702
Subarea runoff =    153.460(CFS) for  160.400(Ac.)
Total runoff =    750.345(CFS)
Effective area this stream =      457.00(Ac.)
Total Study Area (Main Stream No. 1) =      457.00(Ac.)
Area averaged Fm value =    0.516(In/Hr)
Street flow at end of street =    750.345(CFS)
Half street flow at end of street =    375.173(CFS)
Depth of flow =   1.962(Ft.), Average velocity =   7.654(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =   58.46(Ft.)
Flow width (from curb towards crown)=  22.000(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      106.000 to Point/Station      107.000
**** IMPROVED CHANNEL TRAVEL TIME ****
------------------------------------------------------------------------
Upstream point elevation =  1194.000(Ft.)
Downstream point elevation =  1166.000(Ft.)
Channel length thru subarea  =  2722.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =    773.416(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =    773.416(CFS)
Depth of flow =   2.943(Ft.), Average velocity =   8.271(Ft/s)
Channel flow top width =   43.546(Ft.)
Flow Velocity =    8.27(Ft/s)
Travel time  =    5.49 min.
Time of concentration =   29.48 min.
Critical depth =      2.938(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 33.50
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.581(In/Hr)
Rainfall intensity =      2.068(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.670
```

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Subarea runoff =     46.052(CFS) for  118.000(Ac.)
Total runoff =    796.397(CFS)
Effective area this stream =      575.00(Ac.)
Total Study Area (Main Stream No. 1) =      575.00(Ac.)
Area averaged Fm value =    0.529(In/Hr)
Depth of flow =   2.988(Ft.), Average velocity =   8.340(Ft/s)
Critical depth =      2.969(Ft.)


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Process from Point/Station      107.000 to Point/Station      108.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1166.000(Ft.)
Downstream point elevation =  1142.000(Ft.)
Channel length thru subarea  =  2918.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1036.487(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1036.487(CFS)
Depth of flow =   3.625(Ft.), Average velocity =   8.289(Ft/s)
Channel flow top width =   48.997(Ft.)
Flow Velocity =    8.29(Ft/s)
Travel time  =    5.87 min.
Time of concentration =   35.34 min.
Critical depth =      3.438(Ft.)
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.38
Pervious ratio(Ap) = 0.4100     Max loss rate(Fm)=     0.400(In/Hr)
Rainfall intensity =      1.855(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.671
Subarea runoff =    480.092(CFS) for  451.100(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1026.10(Ac.)
Total Study Area (Main Stream No. 1) =     1026.10(Ac.)
Area averaged Fm value =    0.472(In/Hr)
Depth of flow =   4.022(Ft.), Average velocity =   8.795(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)


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Process from Point/Station      108.000 to Point/Station      109.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1142.000(Ft.)
Downstream point elevation =  1104.000(Ft.)
Channel length thru subarea  =  5404.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1276.517(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1276.517(CFS)
Depth of flow =   4.156(Ft.), Average velocity =   8.391(Ft/s)
!!Warning: Water is above left or right bank elevations
Channel flow top width =   52.000(Ft.)
Flow Velocity =    8.39(Ft/s)
Travel time  =   10.73 min.
Time of concentration =   46.08 min.
Critical depth =      3.875(Ft.)
ERROR - Channel depth exceeds maximum allowable depth
 Adding area flow to channel
```

```
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.3300     Max loss rate(Fm)=     0.323(In/Hr)
The area added to the existing stream causes a
a lower flow rate of Q =   1129.363(CFS)
therefore the upstream flow rate of Q =   1276.489(CFS) is being used
Rainfall intensity =      1.582(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.638
Subarea runoff =      0.000(CFS) for   92.500(Ac.)
Total runoff =   1276.489(CFS)
Effective area this stream =     1118.60(Ac.)
Total Study Area (Main Stream No. 1) =     1118.60(Ac.)
Area averaged Fm value =    0.460(In/Hr)
Depth of flow =   4.156(Ft.), Average velocity =   8.391(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      3.875(Ft.)


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Process from Point/Station      109.000 to Point/Station      110.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1104.000(Ft.)
Downstream point elevation =  1060.000(Ft.)
Channel length thru subarea  =  4941.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1377.016(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1377.016(CFS)
Depth of flow =   4.083(Ft.), Average velocity =   9.284(Ft/s)
!!Warning: Water is above left or right bank elevations
Channel flow top width =   52.000(Ft.)
Flow Velocity =    9.28(Ft/s)
Travel time  =    8.87 min.
Time of concentration =   54.95 min.
Critical depth =      4.031(Ft.)
ERROR - Channel depth exceeds maximum allowable depth
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 32.00
Pervious ratio(Ap) = 0.2700     Max loss rate(Fm)=     0.264(In/Hr)
Rainfall intensity =      1.423(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.647
Subarea runoff =    200.994(CFS) for  486.700(Ac.)
Total runoff =   1477.483(CFS)
Effective area this stream =     1605.30(Ac.)
Total Study Area (Main Stream No. 1) =     1605.30(Ac.)
Area averaged Fm value =    0.401(In/Hr)
Depth of flow =   4.206(Ft.), Average velocity =   9.549(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      4.156(Ft.)


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Process from Point/Station      110.000 to Point/Station      111.000
**** IMPROVED CHANNEL TRAVEL TIME ****
________________________________________________________________________
Upstream point elevation =  1060.000(Ft.)
Downstream point elevation =  1036.000(Ft.)
Channel length thru subarea  =  4312.000(Ft.)
Channel base width     =   20.000(Ft.)
Slope or 'Z' of left channel bank =   4.000
```

```
Slope or 'Z' of right channel bank =   4.000
Estimated mean flow rate at midpoint of channel =   1477.515(CFS)
Manning's 'N'    = 0.030
Maximum depth of channel  =    4.000(Ft.)
Flow(q) thru subarea =   1477.515(CFS)
Depth of flow =   4.657(Ft.), Average velocity =   8.294(Ft/s)
!!Warning: Water is above left or right bank elevations
Channel flow top width =   52.000(Ft.)
Flow Velocity =    8.29(Ft/s)
Travel time  =    8.67 min.
Time of concentration =   63.61 min.
Critical depth =      4.156(Ft.)
ERROR - Channel depth exceeds maximum allowable depth
 Adding area flow to channel
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 34.99
Pervious ratio(Ap) = 0.5100     Max loss rate(Fm)=     0.489(In/Hr)
The area added to the existing stream causes a
a lower flow rate of Q =   1408.366(CFS)
therefore the upstream flow rate of Q =   1477.483(CFS) is being used
Rainfall intensity =      1.303(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area,(total area with modified
rational method)(Q=KCIA) is C = 0.619
Subarea runoff =      0.000(CFS) for  141.600(Ac.)
Total runoff =   1477.483(CFS)
Effective area this stream =     1746.90(Ac.)
Total Study Area (Main Stream No. 1) =     1746.90(Ac.)
Area averaged Fm value =    0.408(In/Hr)
Depth of flow =   4.657(Ft.), Average velocity =   8.294(Ft/s)
!!Warning: Water is above left or right bank elevations
ERROR - Channel depth exceeds maximum allowable depth
Critical depth =      4.156(Ft.)
End of computations, Total Study Area =         1746.90 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.420
Area averaged SCS curve number =  32.8
```

APPENDIX B: ULTIMATE CONDITION UNIT HYDROGRAPH ANALYSES

APPENDIX B.1: UNIT HYDROGRAPH METHOD ANALYSIS, NODE 108

U n i t H y d r o g r a p h A n a l y s i s

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Study date 04/20/20

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6269

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR UNIT HYDROGRAPH METHOD
FN:ARA108UH24.UBM

Storm Event Year = 100

Antecedent Moisture Condition = 2

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
1026.10	1	1.35
Rainfall data for year 100		
1026.10	6	2.84
Rainfall data for year 100		
1026.10	24	5.42

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 2)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.9	32.9	1026.10	1.000	0.972	0.486	0.473

Area-averaged adjusted loss rate Fm (In/Hr) = 0.473

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC2)	S	Pervious Yield Fr
498.68	0.486	32.9	32.9	20.40	0.015
527.42	0.514	98.0	98.0	0.20	0.956

Area-averaged catchment yield fraction, Y = 0.499
Area-averaged low loss fraction, Yb = 0.501
User entry of time of concentration = 0.589 (hours)

++

Watershed area = 1026.10(Ac.)
Catchment Lag time = 0.471 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 17.6853
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.473(In/Hr)
Average low loss rate fraction (Yb) = 0.501 (decimal)
VALLEY DEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.500(In)
Computed peak 30-minute rainfall = 1.023(In)
Specified peak 1-hour rainfall = 1.350(In)
Computed peak 3-hour rainfall = 2.130(In)
Specified peak 6-hour rainfall = 2.840(In)
Specified peak 24-hour rainfall = 5.420(In)

Rainfall depth area reduction factors:
Using a total area of 1026.10(Ac.) (Ref: fig. E-4)

5-minute factor = 0.952 Adjusted rainfall = 0.476(In)
30-minute factor = 0.952 Adjusted rainfall = 0.974(In)
1-hour factor = 0.952 Adjusted rainfall = 1.285(In)
3-hour factor = 0.994 Adjusted rainfall = 2.117(In)
6-hour factor = 0.997 Adjusted rainfall = 2.831(In)
24-hour factor = 0.999 Adjusted rainfall = 5.413(In)

U n i t H y d r o g r a p h

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 12409.40 (CFS))	
1	1.031	127.915
2	3.950	362.233
3	10.413	802.068
4	20.427	1242.611
5	32.386	1484.132
6	47.032	1817.404
7	62.914	1970.871
8	74.790	1473.721
9	82.611	970.524
10	88.875	777.352
11	92.383	435.371
12	95.161	344.714
13	96.900	215.834
14	97.995	135.826
15	98.416	52.242
16	98.734	39.508
17	99.053	39.505
18	99.371	39.489
19	99.689	39.506
20	100.000	38.571

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4756	0.4756
2	0.6276	0.1520
3	0.7381	0.1105
4	0.8281	0.0900
5	0.9054	0.0773
6	0.9739	0.0685
7	1.0358	0.0619
8	1.0927	0.0568
9	1.1454	0.0527
10	1.1947	0.0493
11	1.2411	0.0464
12	1.2851	0.0440
13	1.3327	0.0476
14	1.3783	0.0456

15	1.4222	0.0439
16	1.4645	0.0423
17	1.5054	0.0409
18	1.5450	0.0396
19	1.5835	0.0384
20	1.6208	0.0373
21	1.6571	0.0363
22	1.6925	0.0354
23	1.7271	0.0345
24	1.7608	0.0337
25	1.7937	0.0330
26	1.8260	0.0323
27	1.8576	0.0316
28	1.8885	0.0310
29	1.9189	0.0304
30	1.9487	0.0298
31	1.9779	0.0293
32	2.0067	0.0287
33	2.0349	0.0283
34	2.0627	0.0278
35	2.0901	0.0273
36	2.1170	0.0269
37	2.1414	0.0245
38	2.1655	0.0241
39	2.1892	0.0237
40	2.2126	0.0234
41	2.2356	0.0230
42	2.2583	0.0227
43	2.2807	0.0224
44	2.3028	0.0221
45	2.3246	0.0218
46	2.3461	0.0215
47	2.3674	0.0212
48	2.3883	0.0210
49	2.4091	0.0207
50	2.4296	0.0205
51	2.4498	0.0203
52	2.4699	0.0200
53	2.4897	0.0198
54	2.5092	0.0196
55	2.5286	0.0194
56	2.5478	0.0192
57	2.5668	0.0190
58	2.5856	0.0188
59	2.6042	0.0186
60	2.6226	0.0184
61	2.6408	0.0182
62	2.6589	0.0181
63	2.6768	0.0179
64	2.6945	0.0177
65	2.7121	0.0176
66	2.7295	0.0174
67	2.7467	0.0173
68	2.7639	0.0171
69	2.7808	0.0170
70	2.7977	0.0168
71	2.8143	0.0167
72	2.8309	0.0166
73	2.8492	0.0183
74	2.8674	0.0182
75	2.8854	0.0181
76	2.9034	0.0179
77	2.9212	0.0178
78	2.9389	0.0177
79	2.9564	0.0176
80	2.9739	0.0174
81	2.9912	0.0173
82	3.0084	0.0172
83	3.0255	0.0171
84	3.0425	0.0170
85	3.0594	0.0169

86	3.0761	0.0168
87	3.0928	0.0167
88	3.1094	0.0166
89	3.1259	0.0165
90	3.1422	0.0164
91	3.1585	0.0163
92	3.1747	0.0162
93	3.1908	0.0161
94	3.2068	0.0160
95	3.2227	0.0159
96	3.2385	0.0158
97	3.2542	0.0157
98	3.2699	0.0156
99	3.2854	0.0156
100	3.3009	0.0155
101	3.3163	0.0154
102	3.3316	0.0153
103	3.3469	0.0152
104	3.3620	0.0152
105	3.3771	0.0151
106	3.3921	0.0150
107	3.4070	0.0149
108	3.4219	0.0149
109	3.4366	0.0148
110	3.4513	0.0147
111	3.4660	0.0146
112	3.4805	0.0146
113	3.4950	0.0145
114	3.5095	0.0144
115	3.5238	0.0144
116	3.5381	0.0143
117	3.5524	0.0142
118	3.5665	0.0142
119	3.5806	0.0141
120	3.5947	0.0140
121	3.6086	0.0140
122	3.6226	0.0139
123	3.6364	0.0139
124	3.6502	0.0138
125	3.6639	0.0137
126	3.6776	0.0137
127	3.6912	0.0136
128	3.7048	0.0136
129	3.7183	0.0135
130	3.7318	0.0135
131	3.7451	0.0134
132	3.7585	0.0133
133	3.7718	0.0133
134	3.7850	0.0132
135	3.7982	0.0132
136	3.8113	0.0131
137	3.8244	0.0131
138	3.8374	0.0130
139	3.8504	0.0130
140	3.8633	0.0129
141	3.8762	0.0129
142	3.8890	0.0128
143	3.9018	0.0128
144	3.9146	0.0127
145	3.9272	0.0127
146	3.9399	0.0126
147	3.9525	0.0126
148	3.9650	0.0125
149	3.9775	0.0125
150	3.9900	0.0125
151	4.0024	0.0124
152	4.0148	0.0124
153	4.0271	0.0123
154	4.0394	0.0123
155	4.0516	0.0122
156	4.0638	0.0122

157	4.0760	0.0122
158	4.0881	0.0121
159	4.1002	0.0121
160	4.1122	0.0120
161	4.1242	0.0120
162	4.1362	0.0120
163	4.1481	0.0119
164	4.1600	0.0119
165	4.1718	0.0118
166	4.1836	0.0118
167	4.1954	0.0118
168	4.2071	0.0117
169	4.2188	0.0117
170	4.2305	0.0117
171	4.2421	0.0116
172	4.2537	0.0116
173	4.2652	0.0115
174	4.2767	0.0115
175	4.2882	0.0115
176	4.2997	0.0114
177	4.3111	0.0114
178	4.3224	0.0114
179	4.3338	0.0113
180	4.3451	0.0113
181	4.3563	0.0113
182	4.3676	0.0112
183	4.3788	0.0112
184	4.3900	0.0112
185	4.4011	0.0111
186	4.4122	0.0111
187	4.4233	0.0111
188	4.4343	0.0110
189	4.4453	0.0110
190	4.4563	0.0110
191	4.4673	0.0110
192	4.4782	0.0109
193	4.4891	0.0109
194	4.4999	0.0109
195	4.5108	0.0108
196	4.5216	0.0108
197	4.5324	0.0108
198	4.5431	0.0107
199	4.5538	0.0107
200	4.5645	0.0107
201	4.5752	0.0107
202	4.5858	0.0106
203	4.5964	0.0106
204	4.6070	0.0106
205	4.6175	0.0105
206	4.6280	0.0105
207	4.6385	0.0105
208	4.6490	0.0105
209	4.6594	0.0104
210	4.6698	0.0104
211	4.6802	0.0104
212	4.6906	0.0104
213	4.7009	0.0103
214	4.7112	0.0103
215	4.7215	0.0103
216	4.7317	0.0103
217	4.7420	0.0102
218	4.7522	0.0102
219	4.7624	0.0102
220	4.7725	0.0102
221	4.7827	0.0101
222	4.7928	0.0101
223	4.8028	0.0101
224	4.8129	0.0101
225	4.8229	0.0100
226	4.8329	0.0100
227	4.8429	0.0100

228	4.8529	0.0100
229	4.8628	0.0099
230	4.8728	0.0099
231	4.8827	0.0099
232	4.8925	0.0099
233	4.9024	0.0098
234	4.9122	0.0098
235	4.9220	0.0098
236	4.9318	0.0098
237	4.9415	0.0098
238	4.9513	0.0097
239	4.9610	0.0097
240	4.9707	0.0097
241	4.9804	0.0097
242	4.9900	0.0097
243	4.9997	0.0096
244	5.0093	0.0096
245	5.0189	0.0096
246	5.0284	0.0096
247	5.0380	0.0095
248	5.0475	0.0095
249	5.0570	0.0095
250	5.0665	0.0095
251	5.0760	0.0095
252	5.0854	0.0094
253	5.0948	0.0094
254	5.1042	0.0094
255	5.1136	0.0094
256	5.1230	0.0094
257	5.1323	0.0093
258	5.1417	0.0093
259	5.1510	0.0093
260	5.1603	0.0093
261	5.1695	0.0093
262	5.1788	0.0093
263	5.1880	0.0092
264	5.1972	0.0092
265	5.2064	0.0092
266	5.2156	0.0092
267	5.2248	0.0092
268	5.2339	0.0091
269	5.2430	0.0091
270	5.2521	0.0091
271	5.2612	0.0091
272	5.2703	0.0091
273	5.2793	0.0091
274	5.2884	0.0090
275	5.2974	0.0090
276	5.3064	0.0090
277	5.3154	0.0090
278	5.3243	0.0090
279	5.3333	0.0089
280	5.3422	0.0089
281	5.3511	0.0089
282	5.3600	0.0089
283	5.3689	0.0089
284	5.3778	0.0089
285	5.3866	0.0088
286	5.3954	0.0088
287	5.4043	0.0088
288	5.4130	0.0088

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0088	0.0044	0.0044
2	0.0088	0.0044	0.0044
3	0.0088	0.0044	0.0044
4	0.0089	0.0044	0.0044
5	0.0089	0.0045	0.0044

6	0.0089	0.0045	0.0044
7	0.0089	0.0045	0.0045
8	0.0090	0.0045	0.0045
9	0.0090	0.0045	0.0045
10	0.0090	0.0045	0.0045
11	0.0091	0.0045	0.0045
12	0.0091	0.0045	0.0045
13	0.0091	0.0046	0.0045
14	0.0091	0.0046	0.0046
15	0.0092	0.0046	0.0046
16	0.0092	0.0046	0.0046
17	0.0092	0.0046	0.0046
18	0.0092	0.0046	0.0046
19	0.0093	0.0046	0.0046
20	0.0093	0.0047	0.0046
21	0.0093	0.0047	0.0047
22	0.0093	0.0047	0.0047
23	0.0094	0.0047	0.0047
24	0.0094	0.0047	0.0047
25	0.0094	0.0047	0.0047
26	0.0095	0.0047	0.0047
27	0.0095	0.0048	0.0047
28	0.0095	0.0048	0.0048
29	0.0096	0.0048	0.0048
30	0.0096	0.0048	0.0048
31	0.0096	0.0048	0.0048
32	0.0097	0.0048	0.0048
33	0.0097	0.0049	0.0048
34	0.0097	0.0049	0.0048
35	0.0098	0.0049	0.0049
36	0.0098	0.0049	0.0049
37	0.0098	0.0049	0.0049
38	0.0098	0.0049	0.0049
39	0.0099	0.0050	0.0049
40	0.0099	0.0050	0.0049
41	0.0100	0.0050	0.0050
42	0.0100	0.0050	0.0050
43	0.0100	0.0050	0.0050
44	0.0101	0.0050	0.0050
45	0.0101	0.0051	0.0050
46	0.0101	0.0051	0.0051
47	0.0102	0.0051	0.0051
48	0.0102	0.0051	0.0051
49	0.0103	0.0051	0.0051
50	0.0103	0.0052	0.0051
51	0.0103	0.0052	0.0052
52	0.0104	0.0052	0.0052
53	0.0104	0.0052	0.0052
54	0.0104	0.0052	0.0052
55	0.0105	0.0053	0.0052
56	0.0105	0.0053	0.0052
57	0.0106	0.0053	0.0053
58	0.0106	0.0053	0.0053
59	0.0107	0.0053	0.0053
60	0.0107	0.0054	0.0053
61	0.0107	0.0054	0.0054
62	0.0108	0.0054	0.0054
63	0.0108	0.0054	0.0054
64	0.0109	0.0054	0.0054
65	0.0109	0.0055	0.0054
66	0.0110	0.0055	0.0055
67	0.0110	0.0055	0.0055
68	0.0110	0.0055	0.0055
69	0.0111	0.0056	0.0055
70	0.0111	0.0056	0.0056
71	0.0112	0.0056	0.0056
72	0.0112	0.0056	0.0056
73	0.0113	0.0057	0.0056
74	0.0113	0.0057	0.0057
75	0.0114	0.0057	0.0057
76	0.0114	0.0057	0.0057

77	0.0115	0.0058	0.0057
78	0.0115	0.0058	0.0058
79	0.0116	0.0058	0.0058
80	0.0117	0.0058	0.0058
81	0.0117	0.0059	0.0059
82	0.0118	0.0059	0.0059
83	0.0118	0.0059	0.0059
84	0.0119	0.0060	0.0059
85	0.0120	0.0060	0.0060
86	0.0120	0.0060	0.0060
87	0.0121	0.0061	0.0060
88	0.0121	0.0061	0.0060
89	0.0122	0.0061	0.0061
90	0.0122	0.0061	0.0061
91	0.0123	0.0062	0.0062
92	0.0124	0.0062	0.0062
93	0.0125	0.0062	0.0062
94	0.0125	0.0063	0.0062
95	0.0126	0.0063	0.0063
96	0.0126	0.0063	0.0063
97	0.0127	0.0064	0.0064
98	0.0128	0.0064	0.0064
99	0.0129	0.0065	0.0064
100	0.0129	0.0065	0.0064
101	0.0130	0.0065	0.0065
102	0.0131	0.0066	0.0065
103	0.0132	0.0066	0.0066
104	0.0132	0.0066	0.0066
105	0.0133	0.0067	0.0067
106	0.0134	0.0067	0.0067
107	0.0135	0.0068	0.0067
108	0.0136	0.0068	0.0068
109	0.0137	0.0069	0.0068
110	0.0137	0.0069	0.0069
111	0.0139	0.0069	0.0069
112	0.0139	0.0070	0.0069
113	0.0140	0.0070	0.0070
114	0.0141	0.0071	0.0070
115	0.0142	0.0071	0.0071
116	0.0143	0.0072	0.0071
117	0.0144	0.0072	0.0072
118	0.0145	0.0073	0.0072
119	0.0146	0.0073	0.0073
120	0.0147	0.0074	0.0073
121	0.0149	0.0074	0.0074
122	0.0149	0.0075	0.0074
123	0.0151	0.0076	0.0075
124	0.0152	0.0076	0.0076
125	0.0153	0.0077	0.0076
126	0.0154	0.0077	0.0077
127	0.0156	0.0078	0.0078
128	0.0156	0.0078	0.0078
129	0.0158	0.0079	0.0079
130	0.0159	0.0080	0.0079
131	0.0161	0.0081	0.0080
132	0.0162	0.0081	0.0081
133	0.0164	0.0082	0.0082
134	0.0165	0.0083	0.0082
135	0.0167	0.0084	0.0083
136	0.0168	0.0084	0.0084
137	0.0170	0.0085	0.0085
138	0.0171	0.0086	0.0085
139	0.0173	0.0087	0.0086
140	0.0174	0.0087	0.0087
141	0.0177	0.0089	0.0088
142	0.0178	0.0089	0.0089
143	0.0181	0.0090	0.0090
144	0.0182	0.0091	0.0091
145	0.0166	0.0083	0.0083
146	0.0167	0.0084	0.0083
147	0.0170	0.0085	0.0085

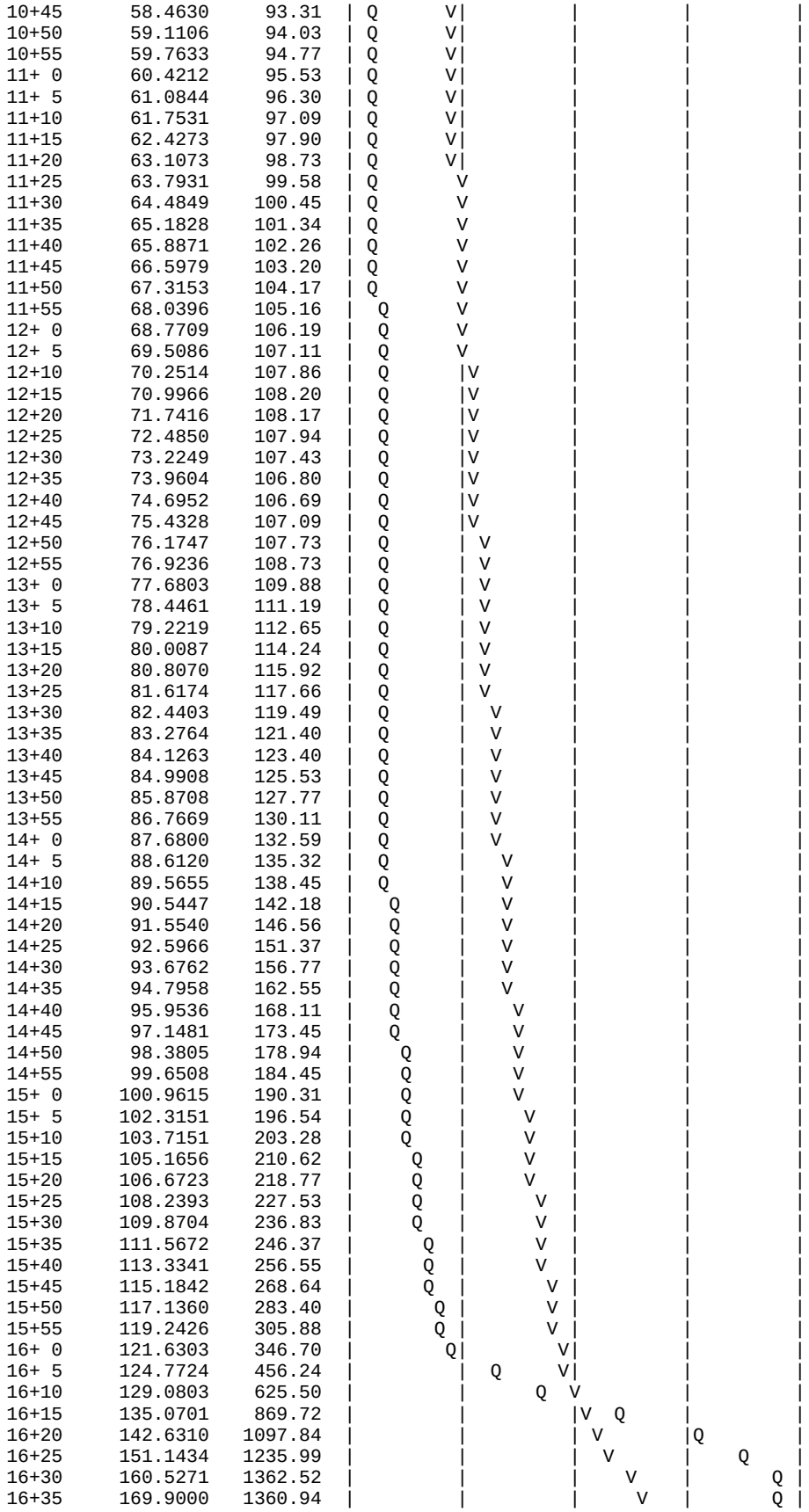
148	0.0171	0.0086	0.0085
149	0.0174	0.0087	0.0087
150	0.0176	0.0088	0.0088
151	0.0179	0.0090	0.0089
152	0.0181	0.0091	0.0090
153	0.0184	0.0092	0.0092
154	0.0186	0.0093	0.0093
155	0.0190	0.0095	0.0095
156	0.0192	0.0096	0.0096
157	0.0196	0.0098	0.0098
158	0.0198	0.0099	0.0099
159	0.0203	0.0101	0.0101
160	0.0205	0.0103	0.0102
161	0.0210	0.0105	0.0105
162	0.0212	0.0106	0.0106
163	0.0218	0.0109	0.0109
164	0.0221	0.0111	0.0110
165	0.0227	0.0114	0.0113
166	0.0230	0.0115	0.0115
167	0.0237	0.0119	0.0118
168	0.0241	0.0121	0.0120
169	0.0269	0.0135	0.0134
170	0.0273	0.0137	0.0136
171	0.0283	0.0142	0.0141
172	0.0287	0.0144	0.0143
173	0.0298	0.0149	0.0149
174	0.0304	0.0152	0.0151
175	0.0316	0.0158	0.0158
176	0.0323	0.0162	0.0161
177	0.0337	0.0169	0.0168
178	0.0345	0.0173	0.0172
179	0.0363	0.0182	0.0181
180	0.0373	0.0187	0.0186
181	0.0396	0.0198	0.0198
182	0.0409	0.0205	0.0204
183	0.0439	0.0220	0.0219
184	0.0456	0.0229	0.0228
185	0.0440	0.0220	0.0219
186	0.0464	0.0233	0.0232
187	0.0527	0.0264	0.0263
188	0.0568	0.0285	0.0284
189	0.0685	0.0343	0.0342
190	0.0773	0.0387	0.0386
191	0.1105	0.0394	0.0711
192	0.1520	0.0394	0.1126
193	0.4756	0.0394	0.4362
194	0.0900	0.0394	0.0506
195	0.0619	0.0310	0.0309
196	0.0493	0.0247	0.0246
197	0.0476	0.0239	0.0237
198	0.0423	0.0212	0.0211
199	0.0384	0.0193	0.0192
200	0.0354	0.0177	0.0177
201	0.0330	0.0165	0.0164
202	0.0310	0.0155	0.0154
203	0.0293	0.0147	0.0146
204	0.0278	0.0139	0.0139
205	0.0245	0.0123	0.0122
206	0.0234	0.0117	0.0117
207	0.0224	0.0112	0.0112
208	0.0215	0.0108	0.0107
209	0.0207	0.0104	0.0103
210	0.0200	0.0100	0.0100
211	0.0194	0.0097	0.0097
212	0.0188	0.0094	0.0094
213	0.0182	0.0091	0.0091
214	0.0177	0.0089	0.0088
215	0.0173	0.0087	0.0086
216	0.0168	0.0084	0.0084
217	0.0183	0.0092	0.0091
218	0.0179	0.0090	0.0089

219	0.0176	0.0088	0.0088
220	0.0172	0.0086	0.0086
221	0.0169	0.0085	0.0084
222	0.0166	0.0083	0.0083
223	0.0163	0.0082	0.0081
224	0.0160	0.0080	0.0080
225	0.0157	0.0079	0.0078
226	0.0155	0.0078	0.0077
227	0.0152	0.0076	0.0076
228	0.0150	0.0075	0.0075
229	0.0148	0.0074	0.0074
230	0.0146	0.0073	0.0073
231	0.0144	0.0072	0.0072
232	0.0142	0.0071	0.0071
233	0.0140	0.0070	0.0070
234	0.0138	0.0069	0.0069
235	0.0136	0.0068	0.0068
236	0.0135	0.0067	0.0067
237	0.0133	0.0067	0.0066
238	0.0131	0.0066	0.0066
239	0.0130	0.0065	0.0065
240	0.0128	0.0064	0.0064
241	0.0127	0.0064	0.0063
242	0.0125	0.0063	0.0063
243	0.0124	0.0062	0.0062
244	0.0123	0.0062	0.0061
245	0.0122	0.0061	0.0061
246	0.0120	0.0060	0.0060
247	0.0119	0.0060	0.0059
248	0.0118	0.0059	0.0059
249	0.0117	0.0059	0.0058
250	0.0116	0.0058	0.0058
251	0.0115	0.0058	0.0057
252	0.0114	0.0057	0.0057
253	0.0113	0.0056	0.0056
254	0.0112	0.0056	0.0056
255	0.0111	0.0056	0.0055
256	0.0110	0.0055	0.0055
257	0.0109	0.0055	0.0054
258	0.0108	0.0054	0.0054
259	0.0107	0.0054	0.0053
260	0.0106	0.0053	0.0053
261	0.0105	0.0053	0.0053
262	0.0105	0.0052	0.0052
263	0.0104	0.0052	0.0052
264	0.0103	0.0052	0.0051
265	0.0102	0.0051	0.0051
266	0.0102	0.0051	0.0051
267	0.0101	0.0051	0.0050
268	0.0100	0.0050	0.0050
269	0.0099	0.0050	0.0050
270	0.0099	0.0049	0.0049
271	0.0098	0.0049	0.0049
272	0.0097	0.0049	0.0049
273	0.0097	0.0048	0.0048
274	0.0096	0.0048	0.0048
275	0.0095	0.0048	0.0048
276	0.0095	0.0048	0.0047
277	0.0094	0.0047	0.0047
278	0.0094	0.0047	0.0047
279	0.0093	0.0047	0.0046
280	0.0093	0.0046	0.0046
281	0.0092	0.0046	0.0046
282	0.0091	0.0046	0.0046
283	0.0091	0.0046	0.0045
284	0.0090	0.0045	0.0045
285	0.0090	0.0045	0.0045
286	0.0089	0.0045	0.0045
287	0.0089	0.0044	0.0044
288	0.0088	0.0044	0.0044

```
      ----------------------------------------------------------------------
      Total soil rain loss =      2.46(In)
      Total effective rainfall =      2.96(In)
      Peak flow rate in flood hydrograph =   1362.52(CFS)
      ----------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                      R u n o f f      H y d r o g r a p h
      ----------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ----------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0      350.0     700.0    1050.0    1400.0
-------------------------------------------------------------------------
  0+ 5       0.0039      0.56  Q         |          |          |          |
  0+10       0.0187      2.15  Q         |          |          |          |
  0+15       0.0578      5.68  Q         |          |          |          |
  0+20       0.1345     11.14  Q         |          |          |          |
  0+25       0.2563     17.69  Q         |          |          |          |
  0+30       0.4334     25.71  Q         |          |          |          |
  0+35       0.6705     34.43  Q         |          |          |          |
  0+40       0.9528     40.99  VQ        |          |          |          |
  0+45       1.2652     45.36  VQ        |          |          |          |
  0+50       1.6019     48.90  VQ        |          |          |          |
  0+55       1.9528     50.95  VQ        |          |          |          |
  1+ 0       2.3151     52.60  VQ        |          |          |          |
  1+ 5       2.6849     53.70  VQ        |          |          |          |
  1+10       3.0599     54.45  VQ        |          |          |          |
  1+15       3.4376     54.84  VQ        |          |          |          |
  1+20       3.8176     55.17  VQ        |          |          |          |
  1+25       4.1998     55.51  VQ        |          |          |          |
  1+30       4.5844     55.84  VQ        |          |          |          |
  1+35       4.9714     56.18  VQ        |          |          |          |
  1+40       5.3606     56.52  VQ        |          |          |          |
  1+45       5.7510     56.69  VQ        |          |          |          |
  1+50       6.1426     56.86  VQ        |          |          |          |
  1+55       6.5354     57.03  |Q        |          |          |          |
  2+ 0       6.9293     57.20  |Q        |          |          |          |
  2+ 5       7.3245     57.38  |Q        |          |          |          |
  2+10       7.7209     57.56  |Q        |          |          |          |
  2+15       8.1185     57.73  |Q        |          |          |          |
  2+20       8.5173     57.91  |Q        |          |          |          |
  2+25       8.9174     58.09  |Q        |          |          |          |
  2+30       9.3188     58.28  |Q        |          |          |          |
  2+35       9.7214     58.46  |Q        |          |          |          |
  2+40      10.1253     58.65  |Q        |          |          |          |
  2+45      10.5305     58.84  |Q        |          |          |          |
  2+50      10.9371     59.03  |Q        |          |          |          |
  2+55      11.3449     59.22  |Q        |          |          |          |
  3+ 0      11.7541     59.41  |Q        |          |          |          |
  3+ 5      12.1646     59.61  |Q        |          |          |          |
  3+10      12.5765     59.80  |Q        |          |          |          |
  3+15      12.9897     60.00  |QV       |          |          |          |
  3+20      13.4043     60.20  |QV       |          |          |          |
  3+25      13.8204     60.41  |QV       |          |          |          |
  3+30      14.2378     60.61  |QV       |          |          |          |
  3+35      14.6567     60.82  |QV       |          |          |          |
  3+40      15.0770     61.03  |QV       |          |          |          |
  3+45      15.4987     61.24  |QV       |          |          |          |
  3+50      15.9219     61.45  |QV       |          |          |          |
  3+55      16.3466     61.67  |QV       |          |          |          |
  4+ 0      16.7728     61.89  |QV       |          |          |          |
  4+ 5      17.2006     62.10  |QV       |          |          |          |
  4+10      17.6298     62.33  |QV       |          |          |          |
  4+15      18.0606     62.55  |QV       |          |          |          |
  4+20      18.4930     62.78  |QV       |          |          |          |
  4+25      18.9269     63.01  |QV       |          |          |          |
  4+30      19.3624     63.24  |Q V      |          |          |          |
  4+35      19.7995     63.47  |Q V      |          |          |          |
  4+40      20.2383     63.71  |Q V      |          |          |          |
  4+45      20.6787     63.95  |Q V      |          |          |          |
```

4+50	21.1208	64.19	Q V			
4+55	21.5645	64.43	Q V			
5+ 0	22.0100	64.68	Q V			
5+ 5	22.4572	64.93	Q V			
5+10	22.9061	65.18	Q V			
5+15	23.3567	65.44	Q V			
5+20	23.8092	65.70	Q V			
5+25	24.2634	65.96	Q V			
5+30	24.7195	66.22	Q V			
5+35	25.1774	66.49	Q V			
5+40	25.6372	66.76	Q V			
5+45	26.0988	67.03	Q V			
5+50	26.5624	67.31	Q V			
5+55	27.0279	67.59	Q V			
6+ 0	27.4953	67.87	Q V			
6+ 5	27.9647	68.16	Q V			
6+10	28.4361	68.45	Q V			
6+15	28.9096	68.74	Q V			
6+20	29.3851	69.04	Q V			
6+25	29.8626	69.34	Q V			
6+30	30.3423	69.65	Q V			
6+35	30.8241	69.96	Q V			
6+40	31.3081	70.27	Q V			
6+45	31.7942	70.59	Q V			
6+50	32.2825	70.91	Q V			
6+55	32.7731	71.23	Q V			
7+ 0	33.2660	71.57	Q V			
7+ 5	33.7612	71.90	Q V			
7+10	34.2587	72.24	Q V			
7+15	34.7586	72.58	Q V			
7+20	35.2608	72.93	Q V			
7+25	35.7655	73.28	Q V			
7+30	36.2727	73.64	Q V			
7+35	36.7824	74.00	Q V			
7+40	37.2946	74.37	Q V			
7+45	37.8094	74.75	Q V			
7+50	38.3268	75.13	Q V			
7+55	38.8468	75.51	Q V			
8+ 0	39.3696	75.90	Q V			
8+ 5	39.8951	76.30	Q V			
8+10	40.4233	76.70	Q V			
8+15	40.9544	77.11	Q V			
8+20	41.4883	77.53	Q V			
8+25	42.0251	77.95	Q V			
8+30	42.5649	78.38	Q V			
8+35	43.1077	78.81	Q V			
8+40	43.6535	79.25	Q V			
8+45	44.2024	79.70	Q V			
8+50	44.7544	80.16	Q V			
8+55	45.3097	80.62	Q V			
9+ 0	45.8682	81.10	Q V			
9+ 5	46.4300	81.57	Q V			
9+10	46.9952	82.06	Q V			
9+15	47.5638	82.56	Q V			
9+20	48.1359	83.07	Q V			
9+25	48.7115	83.58	Q V			
9+30	49.2908	84.11	Q V			
9+35	49.8737	84.64	Q V			
9+40	50.4603	85.18	Q V			
9+45	51.0508	85.74	Q V			
9+50	51.6452	86.30	Q V			
9+55	52.2435	86.88	Q V			
10+ 0	52.8459	87.46	Q V			
10+ 5	53.4524	88.06	Q V			
10+10	54.0631	88.67	Q V			
10+15	54.6780	89.29	Q V			
10+20	55.2974	89.93	Q V			
10+25	55.9212	90.58	Q V			
10+30	56.5496	91.24	Q V			
10+35	57.1826	91.91	Q V			
10+40	57.8204	92.61	Q V			


10+45 58.4630 93.31
10+50 59.1106 94.03
10+55 59.7633 94.77
11+ 0 60.4212 95.53
11+ 5 61.0844 96.30
11+10 61.7531 97.09
11+15 62.4273 97.90
11+20 63.1073 98.73
11+25 63.7931 99.58
11+30 64.4849 100.45
11+35 65.1828 101.34
11+40 65.8871 102.26
11+45 66.5979 103.20
11+50 67.3153 104.17
11+55 68.0396 105.16
12+ 0 68.7709 106.19
12+ 5 69.5086 107.11
12+10 70.2514 107.86
12+15 70.9966 108.20
12+20 71.7416 108.17
12+25 72.4850 107.94
12+30 73.2249 107.43
12+35 73.9604 106.80
12+40 74.6952 106.69
12+45 75.4328 107.09
12+50 76.1747 107.73
12+55 76.9236 108.73
13+ 0 77.6803 109.88
13+ 5 78.4461 111.19
13+10 79.2219 112.65
13+15 80.0087 114.24
13+20 80.8070 115.92
13+25 81.6174 117.66
13+30 82.4403 119.49
13+35 83.2764 121.40
13+40 84.1263 123.40
13+45 84.9908 125.53
13+50 85.8708 127.77
13+55 86.7669 130.11
14+ 0 87.6800 132.59
14+ 5 88.6120 135.32
14+10 89.5655 138.45
14+15 90.5447 142.18
14+20 91.5540 146.56
14+25 92.5966 151.37
14+30 93.6762 156.77
14+35 94.7958 162.55
14+40 95.9536 168.11
14+45 97.1481 173.45
14+50 98.3805 178.94
14+55 99.6508 184.45
15+ 0 100.9615 190.31
15+ 5 102.3151 196.54
15+10 103.7151 203.28
15+15 105.1656 210.62
15+20 106.6723 218.77
15+25 108.2393 227.53
15+30 109.8704 236.83
15+35 111.5672 246.37
15+40 113.3341 256.55
15+45 115.1842 268.64
15+50 117.1360 283.40
15+55 119.2426 305.88
16+ 0 121.6303 346.70
16+ 5 124.7724 456.24
16+10 129.0803 625.50
16+15 135.0701 869.72
16+20 142.6310 1097.84
16+25 151.1434 1235.99
16+30 160.5271 1362.52
16+35 169.9000 1360.94

```
16+40     177.4702   1099.19  |          |          |        V |Q         |
16+45     183.2392    837.65  |          |          |  Q     V |          |
16+50     188.0271    695.21  |          |         Q|         V|          |
16+55     191.5928    517.74  |          |    Q     |          V          |
17+ 0     194.6169    439.10  |          |  Q       |          V          |
17+ 5     197.0621    355.04  |          Q          |          |V         |
17+10     199.0953    295.22  |        Q |          |          |V         |
17+15     200.7635    242.22  |      Q   |          |          |V         |
17+20     202.2828    220.60  |      Q   |          |          |  V       |
17+25     203.7074    206.85  |     Q    |          |          |  V       |
17+30     205.0476    194.59  |     Q    |          |          |  V       |
17+35     206.3022    182.16  |     Q    |          |          |  V       |
17+40     207.4690    169.42  |    Q     |          |          |  V       |
17+45     208.4741    145.95  |    Q     |          |          |  V       |
17+50     209.4263    138.25  |   Q      |          |          |   V      |
17+55     210.3370    132.24  |   Q      |          |          |   V      |
18+ 0     211.2119    127.03  |   Q      |          |          |   V      |
18+ 5     212.0555    122.50  |   Q      |          |          |   V      |
18+10     212.8730    118.70  |   Q      |          |          |   V      |
18+15     213.6704    115.77  |   Q      |          |          |   V      |
18+20     214.4526    113.57  |   Q      |          |          |   V      |
18+25     215.2229    111.86  |   Q      |          |          |    V     |
18+30     215.9852    110.69  |   Q      |          |          |    V     |
18+35     216.7418    109.85  |   Q      |          |          |    V     |
18+40     217.4905    108.71  |   Q      |          |          |    V     |
18+45     218.2294    107.29  |   Q      |          |          |    V     |
18+50     218.9581    105.82  |   Q      |          |          |    V     |
18+55     219.6754    104.14  | Q        |          |          |    V     |
19+ 0     220.3813    102.50  | Q        |          |          |    V     |
19+ 5     221.0758    100.84  | Q        |          |          |    V     |
19+10     221.7590     99.20  | Q        |          |          |     V    |
19+15     222.4309     97.56  | Q        |          |          |     V    |
19+20     223.0920     96.00  | Q        |          |          |     V    |
19+25     223.7429     94.51  | Q        |          |          |     V    |
19+30     224.3839     93.08  | Q        |          |          |     V    |
19+35     225.0156     91.72  | Q        |          |          |     V    |
19+40     225.6384     90.42  | Q        |          |          |     V    |
19+45     226.2523     89.14  | Q        |          |          |     V    |
19+50     226.8577     87.91  | Q        |          |          |     V    |
19+55     227.4549     86.72  | Q        |          |          |     V    |
20+ 0     228.0444     85.58  | Q        |          |          |      V   |
20+ 5     228.6262     84.49  | Q        |          |          |      V   |
20+10     229.2008     83.43  | Q        |          |          |      V   |
20+15     229.7684     82.41  | Q        |          |          |      V   |
20+20     230.3292     81.43  | Q        |          |          |      V   |
20+25     230.8835     80.48  | Q        |          |          |      V   |
20+30     231.4314     79.56  | Q        |          |          |      V   |
20+35     231.9732     78.67  | Q        |          |          |      V   |
20+40     232.5091     77.81  | Q        |          |          |      V   |
20+45     233.0392     76.97  | Q        |          |          |      V   |
20+50     233.5637     76.16  | Q        |          |          |      V   |
20+55     234.0829     75.38  | Q        |          |          |       V  |
21+ 0     234.5968     74.62  | Q        |          |          |       V  |
21+ 5     235.1055     73.88  | Q        |          |          |       V  |
21+10     235.6094     73.16  | Q        |          |          |       V  |
21+15     236.1084     72.46  | Q        |          |          |       V  |
21+20     236.6027     71.78  | Q        |          |          |       V  |
21+25     237.0925     71.11  | Q        |          |          |       V  |
21+30     237.5778     70.47  | Q        |          |          |       V  |
21+35     238.0588     69.84  |Q         |          |          |       V  |
21+40     238.5356     69.23  |Q         |          |          |       V  |
21+45     239.0083     68.63  |Q         |          |          |       V  |
21+50     239.4769     68.05  |Q         |          |          |       V  |
21+55     239.9417     67.48  |Q         |          |          |       V  |
22+ 0     240.4026     66.92  |Q         |          |          |        V |
22+ 5     240.8598     66.38  |Q         |          |          |        V |
22+10     241.3133     65.85  |Q         |          |          |        V |
22+15     241.7633     65.34  |Q         |          |          |        V |
22+20     242.2097     64.83  |Q         |          |          |        V |
22+25     242.6528     64.33  |Q         |          |          |        V |
22+30     243.0926     63.85  |Q         |          |          |        V |
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   22+35     243.5290     63.38  |Q        |         |         |       V |
   22+40     243.9623     62.91  |Q        |         |         |       V |
   22+45     244.3925     62.46  |Q        |         |         |       V |
   22+50     244.8196     62.01  |Q        |         |         |       V |
   22+55     245.2436     61.58  |Q        |         |         |       V |
   23+ 0     245.6648     61.15  |Q        |         |         |       V |
   23+ 5     246.0830     60.73  |Q        |         |         |       V |
   23+10     246.4985     60.32  |Q        |         |         |        V|
   23+15     246.9111     59.92  |Q        |         |         |        V|
   23+20     247.3211     59.52  |Q        |         |         |        V|
   23+25     247.7284     59.14  |Q        |         |         |        V|
   23+30     248.1330     58.76  |Q        |         |         |        V|
   23+35     248.5351     58.38  |Q        |         |         |        V|
   23+40     248.9346     58.02  |Q        |         |         |        V|
   23+45     249.3317     57.66  |Q        |         |         |        V|
   23+50     249.7264     57.30  |Q        |         |         |        V|
   23+55     250.1186     56.95  |Q        |         |         |        V|
   24+ 0     250.5085     56.61  |Q        |         |         |        V|
   24+ 5     250.8922     55.72  |Q        |         |         |        V|
   24+10     251.2628     53.80  |Q        |         |         |        V|
   24+15     251.6070     49.98  |Q        |         |         |        V|
   24+20     251.9117     44.24  |Q        |         |         |        V|
   24+25     252.1699     37.49  |Q        |         |         |        V|
   24+30     252.3718     29.31  Q         |         |         |        V|
   24+35     252.5131     20.51  Q         |         |         |        V|
   24+40     252.6091     13.94  Q         |         |         |        V|
   24+45     252.6753      9.61  Q         |         |         |        V|
   24+50     252.7177      6.15  Q         |         |         |        V|
   24+55     252.7466      4.21  Q         |         |         |        V|
   25+ 0     252.7651      2.68  Q         |         |         |        V|
   25+ 5     252.7769      1.72  Q         |         |         |        V|
   25+10     252.7845      1.11  Q         |         |         |        V|
   25+15     252.7906      0.88  Q         |         |         |        V|
   25+20     252.7954      0.70  Q         |         |         |        V|
   25+25     252.7990      0.52  Q         |         |         |        V|
   25+30     252.8013      0.34  Q         |         |         |        V|
   25+35     252.8025      0.17  Q         |         |         |        V|
-------------------------------------------------------------------------
```

APPENDIX B.2: UNIT HYDROGRAPH METHOD ANALYSIS, NODE 109

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2004, Version 7.0

Study date 04/20/20

++

San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6269

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR UNIT HYDROGRAPH METHOD
FN:ARA109UH24.UBM

Storm Event Year = 100

Antecedent Moisture Condition = 2

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
1118.60	1	1.35
Rainfall data for year 100		
1118.60	6	2.84
Rainfall data for year 100		
1118.60	24	5.42

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 2)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.8	32.8	1118.60	1.000	0.973	0.473	0.460

Area-averaged adjusted loss rate Fm (In/Hr) = 0.460

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC2)	S	Pervious Yield Fr
529.10	0.473	32.8	32.8	20.49	0.015
589.50	0.527	98.0	98.0	0.20	0.956

Area-averaged catchment yield fraction, Y = 0.511
Area-averaged low loss fraction, Yb = 0.489
User entry of time of concentration = 0.768 (hours)

++

Watershed area = 1118.60(Ac.)
Catchment Lag time = 0.614 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 13.5634
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.460(In/Hr)
Average low loss rate fraction (Yb) = 0.489 (decimal)
VALLEY DEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.500(In)
Computed peak 30-minute rainfall = 1.023(In)
Specified peak 1-hour rainfall = 1.350(In)
Computed peak 3-hour rainfall = 2.130(In)
Specified peak 6-hour rainfall = 2.840(In)
Specified peak 24-hour rainfall = 5.420(In)

Rainfall depth area reduction factors:
Using a total area of 1118.60(Ac.) (Ref: fig. E-4)

5-minute factor = 0.948 Adjusted rainfall = 0.473(In)
30-minute factor = 0.948 Adjusted rainfall = 0.969(In)
1-hour factor = 0.948 Adjusted rainfall = 1.279(In)
3-hour factor = 0.993 Adjusted rainfall = 2.116(In)
6-hour factor = 0.997 Adjusted rainfall = 2.830(In)
24-hour factor = 0.999 Adjusted rainfall = 5.412(In)

U n i t H y d r o g r a p h

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 13528.07 (CFS))	
1	0.775	104.785
2	2.645	252.966
3	5.965	449.201
4	12.051	823.305
5	19.861	1056.511
6	28.764	1204.469
7	39.018	1387.193
8	51.023	1623.959
9	63.342	1666.562
10	73.035	1311.293
11	79.008	807.970
12	85.222	840.684
13	89.170	534.077
14	91.894	368.566
15	94.266	320.851
16	95.957	228.681
17	97.110	156.101
18	97.958	114.623
19	98.317	48.540
20	98.561	33.031
21	98.805	33.031
22	99.049	33.030
23	99.293	33.012
24	99.537	33.027
25	99.781	33.029
26	100.000	29.572

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4734	0.4734
2	0.6247	0.1513
3	0.7347	0.1100
4	0.8243	0.0896
5	0.9013	0.0770
6	0.9695	0.0682
7	1.0311	0.0617
8	1.0877	0.0566

9	1.1402	0.0525
10	1.1892	0.0491
11	1.2355	0.0462
12	1.2792	0.0438
13	1.3270	0.0478
14	1.3728	0.0458
15	1.4169	0.0441
16	1.4594	0.0425
17	1.5005	0.0411
18	1.5403	0.0398
19	1.5789	0.0386
20	1.6164	0.0375
21	1.6530	0.0365
22	1.6886	0.0356
23	1.7233	0.0347
24	1.7572	0.0339
25	1.7904	0.0332
26	1.8228	0.0325
27	1.8546	0.0318
28	1.8858	0.0312
29	1.9163	0.0306
30	1.9463	0.0300
31	1.9758	0.0295
32	2.0047	0.0289
33	2.0331	0.0285
34	2.0611	0.0280
35	2.0887	0.0275
36	2.1158	0.0271
37	2.1403	0.0245
38	2.1644	0.0241
39	2.1881	0.0237
40	2.2115	0.0234
41	2.2345	0.0230
42	2.2572	0.0227
43	2.2796	0.0224
44	2.3017	0.0221
45	2.3235	0.0218
46	2.3450	0.0215
47	2.3663	0.0213
48	2.3873	0.0210
49	2.4080	0.0207
50	2.4285	0.0205
51	2.4488	0.0203
52	2.4688	0.0200
53	2.4886	0.0198
54	2.5082	0.0196
55	2.5276	0.0194
56	2.5468	0.0192
57	2.5658	0.0190
58	2.5846	0.0188
59	2.6032	0.0186
60	2.6216	0.0184
61	2.6399	0.0182
62	2.6579	0.0181
63	2.6759	0.0179
64	2.6936	0.0177
65	2.7112	0.0176
66	2.7286	0.0174
67	2.7459	0.0173
68	2.7630	0.0171
69	2.7800	0.0170
70	2.7968	0.0168
71	2.8135	0.0167
72	2.8301	0.0166
73	2.8484	0.0183
74	2.8666	0.0182
75	2.8846	0.0181
76	2.9026	0.0179
77	2.9204	0.0178
78	2.9380	0.0177
79	2.9556	0.0176

80	2.9730	0.0174
81	2.9904	0.0173
82	3.0076	0.0172
83	3.0247	0.0171
84	3.0417	0.0170
85	3.0585	0.0169
86	3.0753	0.0168
87	3.0920	0.0167
88	3.1086	0.0166
89	3.1250	0.0165
90	3.1414	0.0164
91	3.1577	0.0163
92	3.1739	0.0162
93	3.1900	0.0161
94	3.2060	0.0160
95	3.2219	0.0159
96	3.2377	0.0158
97	3.2534	0.0157
98	3.2691	0.0156
99	3.2846	0.0156
100	3.3001	0.0155
101	3.3155	0.0154
102	3.3308	0.0153
103	3.3460	0.0152
104	3.3612	0.0152
105	3.3763	0.0151
106	3.3913	0.0150
107	3.4062	0.0149
108	3.4210	0.0149
109	3.4358	0.0148
110	3.4505	0.0147
111	3.4652	0.0146
112	3.4797	0.0146
113	3.4942	0.0145
114	3.5087	0.0144
115	3.5230	0.0144
116	3.5373	0.0143
117	3.5515	0.0142
118	3.5657	0.0142
119	3.5798	0.0141
120	3.5939	0.0140
121	3.6078	0.0140
122	3.6217	0.0139
123	3.6356	0.0139
124	3.6494	0.0138
125	3.6631	0.0137
126	3.6768	0.0137
127	3.6904	0.0136
128	3.7040	0.0136
129	3.7175	0.0135
130	3.7309	0.0135
131	3.7443	0.0134
132	3.7577	0.0133
133	3.7710	0.0133
134	3.7842	0.0132
135	3.7974	0.0132
136	3.8105	0.0131
137	3.8236	0.0131
138	3.8366	0.0130
139	3.8496	0.0130
140	3.8625	0.0129
141	3.8754	0.0129
142	3.8882	0.0128
143	3.9010	0.0128
144	3.9138	0.0127
145	3.9265	0.0127
146	3.9391	0.0126
147	3.9517	0.0126
148	3.9642	0.0126
149	3.9767	0.0125
150	3.9892	0.0125

151	4.0016	0.0124
152	4.0140	0.0124
153	4.0263	0.0123
154	4.0386	0.0123
155	4.0509	0.0122
156	4.0631	0.0122
157	4.0752	0.0122
158	4.0873	0.0121
159	4.0994	0.0121
160	4.1115	0.0120
161	4.1235	0.0120
162	4.1354	0.0120
163	4.1473	0.0119
164	4.1592	0.0119
165	4.1711	0.0118
166	4.1829	0.0118
167	4.1946	0.0118
168	4.2064	0.0117
169	4.2181	0.0117
170	4.2297	0.0117
171	4.2413	0.0116
172	4.2529	0.0116
173	4.2645	0.0115
174	4.2760	0.0115
175	4.2874	0.0115
176	4.2989	0.0114
177	4.3103	0.0114
178	4.3217	0.0114
179	4.3330	0.0113
180	4.3443	0.0113
181	4.3556	0.0113
182	4.3668	0.0112
183	4.3780	0.0112
184	4.3892	0.0112
185	4.4003	0.0111
186	4.4115	0.0111
187	4.4225	0.0111
188	4.4336	0.0110
189	4.4446	0.0110
190	4.4556	0.0110
191	4.4665	0.0110
192	4.4774	0.0109
193	4.4883	0.0109
194	4.4992	0.0109
195	4.5100	0.0108
196	4.5208	0.0108
197	4.5316	0.0108
198	4.5424	0.0107
199	4.5531	0.0107
200	4.5638	0.0107
201	4.5744	0.0107
202	4.5850	0.0106
203	4.5957	0.0106
204	4.6062	0.0106
205	4.6168	0.0105
206	4.6273	0.0105
207	4.6378	0.0105
208	4.6482	0.0105
209	4.6587	0.0104
210	4.6691	0.0104
211	4.6795	0.0104
212	4.6898	0.0104
213	4.7002	0.0103
214	4.7105	0.0103
215	4.7208	0.0103
216	4.7310	0.0103
217	4.7413	0.0102
218	4.7515	0.0102
219	4.7616	0.0102
220	4.7718	0.0102
221	4.7819	0.0101

222	4.7920	0.0101
223	4.8021	0.0101
224	4.8122	0.0101
225	4.8222	0.0100
226	4.8322	0.0100
227	4.8422	0.0100
228	4.8522	0.0100
229	4.8621	0.0099
230	4.8721	0.0099
231	4.8820	0.0099
232	4.8918	0.0099
233	4.9017	0.0099
234	4.9115	0.0098
235	4.9213	0.0098
236	4.9311	0.0098
237	4.9409	0.0098
238	4.9506	0.0097
239	4.9603	0.0097
240	4.9700	0.0097
241	4.9797	0.0097
242	4.9893	0.0097
243	4.9990	0.0096
244	5.0086	0.0096
245	5.0182	0.0096
246	5.0277	0.0096
247	5.0373	0.0095
248	5.0468	0.0095
249	5.0563	0.0095
250	5.0658	0.0095
251	5.0753	0.0095
252	5.0847	0.0094
253	5.0942	0.0094
254	5.1036	0.0094
255	5.1130	0.0094
256	5.1223	0.0094
257	5.1317	0.0093
258	5.1410	0.0093
259	5.1503	0.0093
260	5.1596	0.0093
261	5.1689	0.0093
262	5.1781	0.0093
263	5.1874	0.0092
264	5.1966	0.0092
265	5.2058	0.0092
266	5.2150	0.0092
267	5.2241	0.0092
268	5.2333	0.0091
269	5.2424	0.0091
270	5.2515	0.0091
271	5.2606	0.0091
272	5.2696	0.0091
273	5.2787	0.0091
274	5.2877	0.0090
275	5.2967	0.0090
276	5.3057	0.0090
277	5.3147	0.0090
278	5.3237	0.0090
279	5.3326	0.0089
280	5.3416	0.0089
281	5.3505	0.0089
282	5.3594	0.0089
283	5.3683	0.0089
284	5.3771	0.0089
285	5.3860	0.0088
286	5.3948	0.0088
287	5.4036	0.0088
288	5.4124	0.0088

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)

1	0.0088	0.0043	0.0045
2	0.0088	0.0043	0.0045
3	0.0088	0.0043	0.0045
4	0.0089	0.0043	0.0045
5	0.0089	0.0044	0.0045
6	0.0089	0.0044	0.0046
7	0.0089	0.0044	0.0046
8	0.0090	0.0044	0.0046
9	0.0090	0.0044	0.0046
10	0.0090	0.0044	0.0046
11	0.0091	0.0044	0.0046
12	0.0091	0.0044	0.0046
13	0.0091	0.0045	0.0047
14	0.0091	0.0045	0.0047
15	0.0092	0.0045	0.0047
16	0.0092	0.0045	0.0047
17	0.0092	0.0045	0.0047
18	0.0092	0.0045	0.0047
19	0.0093	0.0045	0.0047
20	0.0093	0.0045	0.0047
21	0.0093	0.0046	0.0048
22	0.0093	0.0046	0.0048
23	0.0094	0.0046	0.0048
24	0.0094	0.0046	0.0048
25	0.0094	0.0046	0.0048
26	0.0095	0.0046	0.0048
27	0.0095	0.0047	0.0049
28	0.0095	0.0047	0.0049
29	0.0096	0.0047	0.0049
30	0.0096	0.0047	0.0049
31	0.0096	0.0047	0.0049
32	0.0097	0.0047	0.0049
33	0.0097	0.0047	0.0050
34	0.0097	0.0048	0.0050
35	0.0098	0.0048	0.0050
36	0.0098	0.0048	0.0050
37	0.0098	0.0048	0.0050
38	0.0099	0.0048	0.0050
39	0.0099	0.0048	0.0051
40	0.0099	0.0049	0.0051
41	0.0100	0.0049	0.0051
42	0.0100	0.0049	0.0051
43	0.0100	0.0049	0.0051
44	0.0101	0.0049	0.0051
45	0.0101	0.0049	0.0052
46	0.0101	0.0050	0.0052
47	0.0102	0.0050	0.0052
48	0.0102	0.0050	0.0052
49	0.0103	0.0050	0.0052
50	0.0103	0.0050	0.0053
51	0.0103	0.0051	0.0053
52	0.0104	0.0051	0.0053
53	0.0104	0.0051	0.0053
54	0.0104	0.0051	0.0053
55	0.0105	0.0051	0.0054
56	0.0105	0.0051	0.0054
57	0.0106	0.0052	0.0054
58	0.0106	0.0052	0.0054
59	0.0107	0.0052	0.0054
60	0.0107	0.0052	0.0055
61	0.0107	0.0053	0.0055
62	0.0108	0.0053	0.0055
63	0.0108	0.0053	0.0055
64	0.0109	0.0053	0.0055
65	0.0109	0.0053	0.0056
66	0.0110	0.0054	0.0056
67	0.0110	0.0054	0.0056
68	0.0110	0.0054	0.0056
69	0.0111	0.0054	0.0057
70	0.0111	0.0054	0.0057

71	0.0112	0.0055	0.0057
72	0.0112	0.0055	0.0057
73	0.0113	0.0055	0.0058
74	0.0113	0.0055	0.0058
75	0.0114	0.0056	0.0058
76	0.0114	0.0056	0.0058
77	0.0115	0.0056	0.0059
78	0.0115	0.0056	0.0059
79	0.0116	0.0057	0.0059
80	0.0117	0.0057	0.0060
81	0.0117	0.0057	0.0060
82	0.0118	0.0058	0.0060
83	0.0118	0.0058	0.0061
84	0.0119	0.0058	0.0061
85	0.0120	0.0058	0.0061
86	0.0120	0.0059	0.0061
87	0.0121	0.0059	0.0062
88	0.0121	0.0059	0.0062
89	0.0122	0.0060	0.0062
90	0.0122	0.0060	0.0063
91	0.0123	0.0060	0.0063
92	0.0124	0.0061	0.0063
93	0.0125	0.0061	0.0064
94	0.0125	0.0061	0.0064
95	0.0126	0.0062	0.0064
96	0.0126	0.0062	0.0065
97	0.0127	0.0062	0.0065
98	0.0128	0.0063	0.0065
99	0.0129	0.0063	0.0066
100	0.0129	0.0063	0.0066
101	0.0130	0.0064	0.0067
102	0.0131	0.0064	0.0067
103	0.0132	0.0064	0.0067
104	0.0132	0.0065	0.0068
105	0.0133	0.0065	0.0068
106	0.0134	0.0066	0.0068
107	0.0135	0.0066	0.0069
108	0.0136	0.0066	0.0069
109	0.0137	0.0067	0.0070
110	0.0137	0.0067	0.0070
111	0.0139	0.0068	0.0071
112	0.0139	0.0068	0.0071
113	0.0140	0.0069	0.0072
114	0.0141	0.0069	0.0072
115	0.0142	0.0070	0.0073
116	0.0143	0.0070	0.0073
117	0.0144	0.0071	0.0074
118	0.0145	0.0071	0.0074
119	0.0146	0.0072	0.0075
120	0.0147	0.0072	0.0075
121	0.0149	0.0073	0.0076
122	0.0149	0.0073	0.0076
123	0.0151	0.0074	0.0077
124	0.0152	0.0074	0.0077
125	0.0153	0.0075	0.0078
126	0.0154	0.0075	0.0079
127	0.0156	0.0076	0.0079
128	0.0156	0.0077	0.0080
129	0.0158	0.0077	0.0081
130	0.0159	0.0078	0.0081
131	0.0161	0.0079	0.0082
132	0.0162	0.0079	0.0083
133	0.0164	0.0080	0.0084
134	0.0165	0.0081	0.0084
135	0.0167	0.0082	0.0085
136	0.0168	0.0082	0.0086
137	0.0170	0.0083	0.0087
138	0.0171	0.0084	0.0087
139	0.0173	0.0085	0.0089
140	0.0174	0.0085	0.0089
141	0.0177	0.0086	0.0090

142	0.0178	0.0087	0.0091
143	0.0181	0.0088	0.0092
144	0.0182	0.0089	0.0093
145	0.0166	0.0081	0.0085
146	0.0167	0.0082	0.0085
147	0.0170	0.0083	0.0087
148	0.0171	0.0084	0.0087
149	0.0174	0.0085	0.0089
150	0.0176	0.0086	0.0090
151	0.0179	0.0088	0.0091
152	0.0181	0.0088	0.0092
153	0.0184	0.0090	0.0094
154	0.0186	0.0091	0.0095
155	0.0190	0.0093	0.0097
156	0.0192	0.0094	0.0098
157	0.0196	0.0096	0.0100
158	0.0198	0.0097	0.0101
159	0.0203	0.0099	0.0104
160	0.0205	0.0100	0.0105
161	0.0210	0.0103	0.0107
162	0.0213	0.0104	0.0109
163	0.0218	0.0107	0.0111
164	0.0221	0.0108	0.0113
165	0.0227	0.0111	0.0116
166	0.0230	0.0113	0.0118
167	0.0237	0.0116	0.0121
168	0.0241	0.0118	0.0123
169	0.0271	0.0133	0.0139
170	0.0275	0.0135	0.0141
171	0.0285	0.0139	0.0145
172	0.0289	0.0142	0.0148
173	0.0300	0.0147	0.0153
174	0.0306	0.0149	0.0156
175	0.0318	0.0155	0.0162
176	0.0325	0.0159	0.0166
177	0.0339	0.0166	0.0173
178	0.0347	0.0170	0.0177
179	0.0365	0.0179	0.0187
180	0.0375	0.0184	0.0192
181	0.0398	0.0195	0.0203
182	0.0411	0.0201	0.0210
183	0.0441	0.0216	0.0225
184	0.0458	0.0224	0.0234
185	0.0438	0.0214	0.0224
186	0.0462	0.0226	0.0236
187	0.0525	0.0257	0.0268
188	0.0566	0.0277	0.0289
189	0.0682	0.0333	0.0348
190	0.0770	0.0376	0.0393
191	0.1100	0.0384	0.0716
192	0.1513	0.0384	0.1129
193	0.4734	0.0384	0.4351
194	0.0896	0.0384	0.0512
195	0.0617	0.0302	0.0315
196	0.0491	0.0240	0.0251
197	0.0478	0.0234	0.0244
198	0.0425	0.0208	0.0217
199	0.0386	0.0189	0.0197
200	0.0356	0.0174	0.0182
201	0.0332	0.0162	0.0169
202	0.0312	0.0152	0.0159
203	0.0295	0.0144	0.0150
204	0.0280	0.0137	0.0143
205	0.0245	0.0120	0.0125
206	0.0234	0.0114	0.0119
207	0.0224	0.0110	0.0114
208	0.0215	0.0105	0.0110
209	0.0207	0.0101	0.0106
210	0.0200	0.0098	0.0102
211	0.0194	0.0095	0.0099
212	0.0188	0.0092	0.0096

213	0.0182	0.0089	0.0093
214	0.0177	0.0087	0.0091
215	0.0173	0.0084	0.0088
216	0.0168	0.0082	0.0086
217	0.0183	0.0090	0.0094
218	0.0179	0.0088	0.0092
219	0.0176	0.0086	0.0090
220	0.0172	0.0084	0.0088
221	0.0169	0.0083	0.0086
222	0.0166	0.0081	0.0085
223	0.0163	0.0080	0.0083
224	0.0160	0.0078	0.0082
225	0.0157	0.0077	0.0080
226	0.0155	0.0076	0.0079
227	0.0152	0.0075	0.0078
228	0.0150	0.0073	0.0077
229	0.0148	0.0072	0.0076
230	0.0146	0.0071	0.0074
231	0.0144	0.0070	0.0073
232	0.0142	0.0069	0.0072
233	0.0140	0.0068	0.0071
234	0.0138	0.0067	0.0070
235	0.0136	0.0067	0.0070
236	0.0135	0.0066	0.0069
237	0.0133	0.0065	0.0068
238	0.0131	0.0064	0.0067
239	0.0130	0.0063	0.0066
240	0.0128	0.0063	0.0066
241	0.0127	0.0062	0.0065
242	0.0126	0.0061	0.0064
243	0.0124	0.0061	0.0063
244	0.0123	0.0060	0.0063
245	0.0122	0.0059	0.0062
246	0.0120	0.0059	0.0062
247	0.0119	0.0058	0.0061
248	0.0118	0.0058	0.0060
249	0.0117	0.0057	0.0060
250	0.0116	0.0057	0.0059
251	0.0115	0.0056	0.0059
252	0.0114	0.0056	0.0058
253	0.0113	0.0055	0.0058
254	0.0112	0.0055	0.0057
255	0.0111	0.0054	0.0057
256	0.0110	0.0054	0.0056
257	0.0109	0.0053	0.0056
258	0.0108	0.0053	0.0055
259	0.0107	0.0052	0.0055
260	0.0106	0.0052	0.0054
261	0.0105	0.0052	0.0054
262	0.0105	0.0051	0.0053
263	0.0104	0.0051	0.0053
264	0.0103	0.0050	0.0053
265	0.0102	0.0050	0.0052
266	0.0102	0.0050	0.0052
267	0.0101	0.0049	0.0052
268	0.0100	0.0049	0.0051
269	0.0099	0.0049	0.0051
270	0.0099	0.0048	0.0050
271	0.0098	0.0048	0.0050
272	0.0097	0.0048	0.0050
273	0.0097	0.0047	0.0049
274	0.0096	0.0047	0.0049
275	0.0095	0.0047	0.0049
276	0.0095	0.0046	0.0048
277	0.0094	0.0046	0.0048
278	0.0094	0.0046	0.0048
279	0.0093	0.0046	0.0048
280	0.0093	0.0045	0.0047
281	0.0092	0.0045	0.0047
282	0.0091	0.0045	0.0047
283	0.0091	0.0044	0.0046

284	0.0090	0.0044	0.0046
285	0.0090	0.0044	0.0046
286	0.0089	0.0044	0.0046
287	0.0089	0.0043	0.0045
288	0.0088	0.0043	0.0045

Total soil rain loss = 2.40(In)
Total effective rainfall = 3.02(In)
Peak flow rate in flood hydrograph = 1271.39(CFS)

++

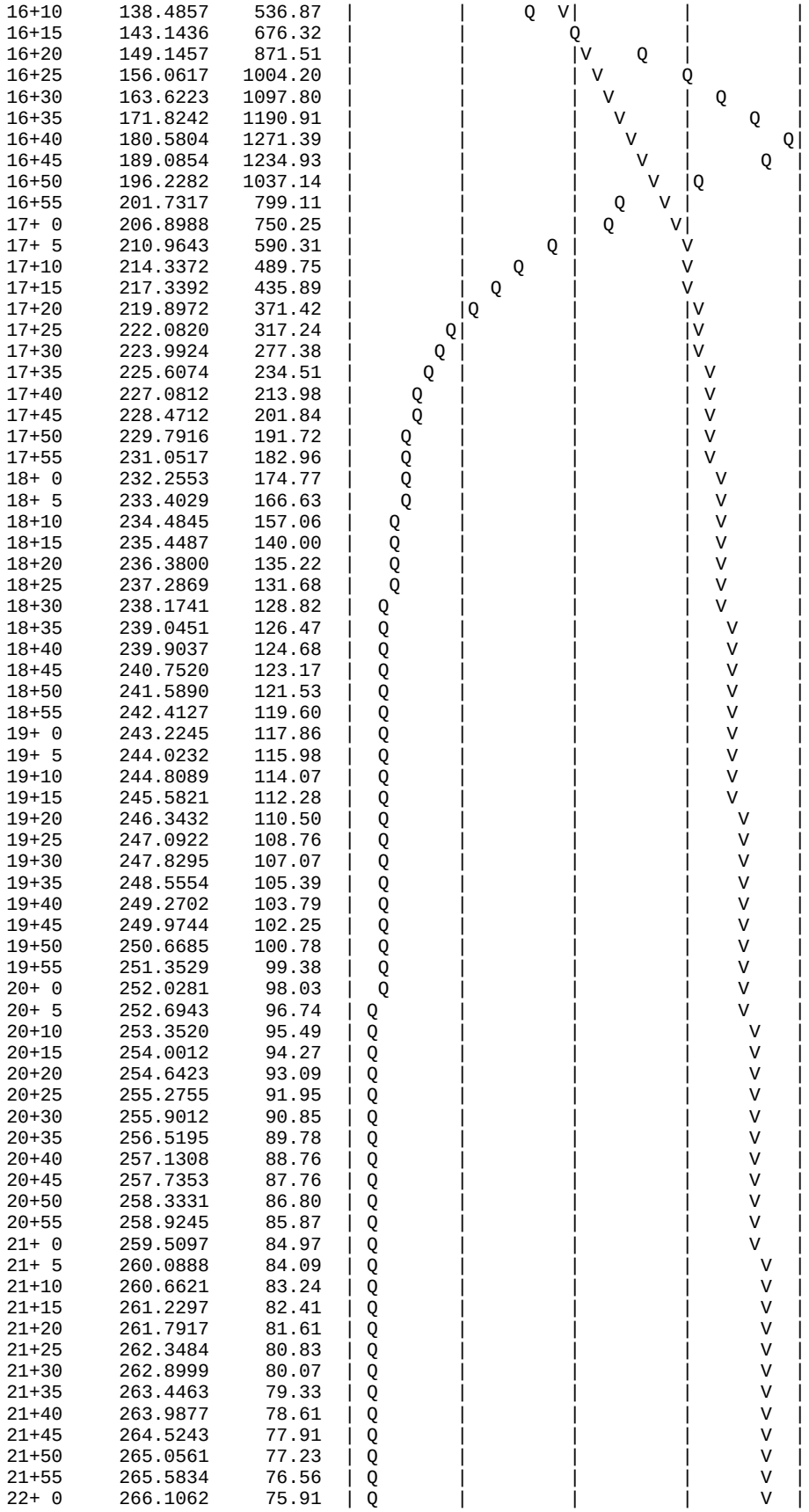
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	325.0	650.0	975.0	1300.0
0+ 5	0.0032	0.47	Q				
0+10	0.0143	1.61	Q				
0+15	0.0393	3.63	Q				
0+20	0.0899	7.34	Q				
0+25	0.1733	12.11	Q				
0+30	0.2942	17.55	Q				
0+35	0.4584	23.84	Q				
0+40	0.6732	31.20	Q				
0+45	0.9403	38.78	VQ				
0+50	1.2487	44.78	VQ				
0+55	1.5829	48.53	VQ				
1+ 0	1.9441	52.45	VQ				
1+ 5	2.3229	55.00	VQ				
1+10	2.7142	56.81	VQ				
1+15	3.1165	58.41	VQ				
1+20	3.5270	59.61	VQ				
1+25	3.9436	60.49	VQ				
1+30	4.3649	61.18	VQ				
1+35	4.7890	61.57	VQ				
1+40	5.2153	61.91	VQ				
1+45	5.6439	62.24	VQ				
1+50	6.0749	62.57	VQ				
1+55	6.5081	62.91	VQ				
2+ 0	6.9437	63.24	VQ				
2+ 5	7.3816	63.58	|Q				
2+10	7.8218	63.91	|Q				
2+15	8.2633	64.11	|Q				
2+20	8.7061	64.30	|Q				
2+25	9.1504	64.50	|Q				
2+30	9.5960	64.71	|Q				
2+35	10.0430	64.91	|Q				
2+40	10.4914	65.11	|VQ				
2+45	10.9413	65.32	|VQ				
2+50	11.3926	65.53	|VQ				
2+55	11.8453	65.74	|VQ				
3+ 0	12.2995	65.95	|VQ				
3+ 5	12.7552	66.16	|VQ				
3+10	13.2124	66.38	|VQ				
3+15	13.6711	66.60	|VQ				
3+20	14.1313	66.82	| Q				
3+25	14.5930	67.04	| Q				
3+30	15.0563	67.27	| Q				
3+35	15.5211	67.49	| Q				
3+40	15.9875	67.73	| Q				
3+45	16.4555	67.96	| Q				
3+50	16.9252	68.19	| Q				
3+55	17.3964	68.42	| Q				
4+ 0	17.8693	68.66	| Q				
4+ 5	18.3439	68.90	| Q				
4+10	18.8201	69.15	| Q				
4+15	19.2980	69.39	| Q				

4+20	19.7777	69.64	Q			
4+25	20.2590	69.89	Q			
4+30	20.7421	70.15	Q			
4+35	21.2270	70.40	QV			
4+40	21.7137	70.66	QV			
4+45	22.2021	70.92	QV			
4+50	22.6924	71.19	QV			
4+55	23.1845	71.46	QV			
5+ 0	23.6785	71.73	QV			
5+ 5	24.1744	72.00	QV			
5+10	24.6721	72.28	QV			
5+15	25.1718	72.55	QV			
5+20	25.6735	72.84	QV			
5+25	26.1771	73.12	QV			
5+30	26.6827	73.41	QV			
5+35	27.1903	73.70	QV			
5+40	27.6999	74.00	QV			
5+45	28.2116	74.30	Q V			
5+50	28.7254	74.60	Q V			
5+55	29.2413	74.91	Q V			
6+ 0	29.7594	75.22	Q V			
6+ 5	30.2796	75.53	Q V			
6+10	30.8020	75.85	Q V			
6+15	31.3265	76.17	Q V			
6+20	31.8534	76.50	Q V			
6+25	32.3825	76.82	Q V			
6+30	32.9139	77.16	Q V			
6+35	33.4476	77.50	Q V			
6+40	33.9837	77.84	Q V			
6+45	34.5221	78.18	Q V			
6+50	35.0630	78.54	Q V			
6+55	35.6063	78.89	Q V			
7+ 0	36.1521	79.25	Q V			
7+ 5	36.7004	79.61	Q V			
7+10	37.2513	79.99	Q V			
7+15	37.8047	80.36	Q V			
7+20	38.3608	80.74	Q V			
7+25	38.9195	81.12	Q V			
7+30	39.4809	81.52	Q V			
7+35	40.0450	81.91	Q V			
7+40	40.6119	82.31	Q V			
7+45	41.1815	82.72	Q V			
7+50	41.7541	83.13	Q V			
7+55	42.3295	83.55	Q V			
8+ 0	42.9078	83.98	Q V			
8+ 5	43.4891	84.40	Q V			
8+10	44.0734	84.84	Q V			
8+15	44.6608	85.29	Q V			
8+20	45.2513	85.74	Q V			
8+25	45.8450	86.20	Q V			
8+30	46.4418	86.66	Q V			
8+35	47.0419	87.13	Q V			
8+40	47.6453	87.62	Q V			
8+45	48.2521	88.10	Q V			
8+50	48.8623	88.60	Q V			
8+55	49.4759	89.10	Q V			
9+ 0	50.0931	89.62	Q V			
9+ 5	50.7138	90.13	Q V			
9+10	51.3383	90.67	Q V			
9+15	51.9664	91.20	Q V			
9+20	52.5983	91.75	Q V			
9+25	53.2340	92.31	Q V			
9+30	53.8736	92.88	Q V			
9+35	54.5172	93.45	Q V			
9+40	55.1649	94.04	Q V			
9+45	55.8167	94.64	Q V			
9+50	56.4727	95.25	Q V			
9+55	57.1329	95.87	Q V			
10+ 0	57.7976	96.51	Q V			
10+ 5	58.4667	97.15	Q V			
10+10	59.1403	97.81	Q V			

10+15	59.8185	98.48	Q V			
10+20	60.5015	99.17	Q V			
10+25	61.1892	99.86	Q V			
10+30	61.8819	100.58	Q V			
10+35	62.5796	101.30	Q V			
10+40	63.2824	102.05	Q V			
10+45	63.9904	102.80	Q V			
10+50	64.7038	103.58	Q V			
10+55	65.4226	104.37	Q V			
11+ 0	66.1470	105.19	Q V			
11+ 5	66.8771	106.01	Q V			
11+10	67.6131	106.87	Q V			
11+15	68.3550	107.73	Q V			
11+20	69.1031	108.62	Q V			
11+25	69.8574	109.53	Q V			
11+30	70.6182	110.47	Q V			
11+35	71.3856	111.42	Q V			
11+40	72.1597	112.40	Q V			
11+45	72.9407	113.40	Q V			
11+50	73.7288	114.44	Q V			
11+55	74.5242	115.49	Q V			
12+ 0	75.3272	116.59	Q V			
12+ 5	76.1371	117.60	Q V			
12+10	76.9533	118.51	Q V			
12+15	77.7746	119.25	Q V			
12+20	78.5989	119.68	Q V			
12+25	79.4247	119.91	Q V			
12+30	80.2514	120.04	Q V			
12+35	81.0780	120.01	Q V			
12+40	81.9032	119.82	Q V			
12+45	82.7269	119.61	Q V			
12+50	83.5519	119.80	Q V			
12+55	84.3819	120.51	Q V			
13+ 0	85.2169	121.25	Q V			
13+ 5	86.0594	122.33	Q V			
13+10	86.9110	123.65	Q V			
13+15	87.7722	125.05	Q V			
13+20	88.6443	126.63	Q V			
13+25	89.5282	128.34	Q V			
13+30	90.4248	130.18	Q V			
13+35	91.3349	132.15	Q V			
13+40	92.2594	134.24	Q V			
13+45	93.1988	136.41	Q V			
13+50	94.1541	138.70	Q V			
13+55	95.1257	141.08	Q V			
14+ 0	96.1148	143.61	Q V			
14+ 5	97.1227	146.36	Q V			
14+10	98.1520	149.46	Q V			
14+15	99.2053	152.93	Q V			
14+20	100.2869	157.05	Q V			
14+25	101.3998	161.59	Q V			
14+30	102.5468	166.55	Q V			
14+35	103.7308	171.92	Q V			
14+40	104.9558	177.86	Q V			
14+45	106.2236	184.10	Q V			
14+50	107.5342	190.30	Q V			
14+55	108.8856	196.23	Q V			
15+ 0	110.2814	202.66	Q V			
15+ 5	111.7218	209.15	Q V			
15+10	113.2098	216.05	Q V			
15+15	114.7487	223.45	Q V			
15+20	116.3434	231.55	Q V			
15+25	117.9965	240.03	Q V			
15+30	119.7123	249.14	Q V			
15+35	121.4944	258.76	Q V			
15+40	123.3464	268.91	Q V			
15+45	125.2774	280.39	Q V			
15+50	127.3056	294.48	Q V			
15+55	129.4699	314.27	Q V			
16+ 0	131.8523	345.92	Q V			
16+ 5	134.7883	426.30	Q V			



16+10	138.4857	536.87	
16+15	143.1436	676.32	
16+20	149.1457	871.51	
16+25	156.0617	1004.20	
16+30	163.6223	1097.80	
16+35	171.8242	1190.91	
16+40	180.5804	1271.39	
16+45	189.0854	1234.93	
16+50	196.2282	1037.14	
16+55	201.7317	799.11	
17+ 0	206.8988	750.25	
17+ 5	210.9643	590.31	
17+10	214.3372	489.75	
17+15	217.3392	435.89	
17+20	219.8972	371.42	
17+25	222.0820	317.24	
17+30	223.9924	277.38	
17+35	225.6074	234.51	
17+40	227.0812	213.98	
17+45	228.4712	201.84	
17+50	229.7916	191.72	
17+55	231.0517	182.96	
18+ 0	232.2553	174.77	
18+ 5	233.4029	166.63	
18+10	234.4845	157.06	
18+15	235.4487	140.00	
18+20	236.3800	135.22	
18+25	237.2869	131.68	
18+30	238.1741	128.82	
18+35	239.0451	126.47	
18+40	239.9037	124.68	
18+45	240.7520	123.17	
18+50	241.5890	121.53	
18+55	242.4127	119.60	
19+ 0	243.2245	117.86	
19+ 5	244.0232	115.98	
19+10	244.8089	114.07	
19+15	245.5821	112.28	
19+20	246.3432	110.50	
19+25	247.0922	108.76	
19+30	247.8295	107.07	
19+35	248.5554	105.39	
19+40	249.2702	103.79	
19+45	249.9744	102.25	
19+50	250.6685	100.78	
19+55	251.3529	99.38	
20+ 0	252.0281	98.03	
20+ 5	252.6943	96.74	
20+10	253.3520	95.49	
20+15	254.0012	94.27	
20+20	254.6423	93.09	
20+25	255.2755	91.95	
20+30	255.9012	90.85	
20+35	256.5195	89.78	
20+40	257.1308	88.76	
20+45	257.7353	87.76	
20+50	258.3331	86.80	
20+55	258.9245	85.87	
21+ 0	259.5097	84.97	
21+ 5	260.0888	84.09	
21+10	260.6621	83.24	
21+15	261.2297	82.41	
21+20	261.7917	81.61	
21+25	262.3484	80.83	
21+30	262.8999	80.07	
21+35	263.4463	79.33	
21+40	263.9877	78.61	
21+45	264.5243	77.91	
21+50	265.0561	77.23	
21+55	265.5834	76.56	
22+ 0	266.1062	75.91	

```
  22+ 5     266.6247     75.28  | Q       |         |         |      V  |
  22+10     267.1389     74.66  | Q       |         |         |       V |
  22+15     267.6489     74.06  | Q       |         |         |       V |
  22+20     268.1549     73.46  | Q       |         |         |       V |
  22+25     268.6568     72.89  | Q       |         |         |       V |
  22+30     269.1549     72.32  | Q       |         |         |       V |
  22+35     269.6492     71.77  | Q       |         |         |       V |
  22+40     270.1398     71.23  | Q       |         |         |       V |
  22+45     270.6267     70.70  | Q       |         |         |       V |
  22+50     271.1101     70.19  | Q       |         |         |       V |
  22+55     271.5900     69.68  | Q       |         |         |       V |
  23+ 0     272.0665     69.18  | Q       |         |         |       V |
  23+ 5     272.5396     68.70  | Q       |         |         |       V |
  23+10     273.0095     68.22  | Q       |         |         |       V |
  23+15     273.4761     67.76  | Q       |         |         |       V |
  23+20     273.9396     67.30  | Q       |         |         |        V|
  23+25     274.4000     66.85  | Q       |         |         |        V|
  23+30     274.8573     66.41  | Q       |         |         |        V|
  23+35     275.3117     65.98  | Q       |         |         |        V|
  23+40     275.7632     65.55  | Q       |         |         |        V|
  23+45     276.2118     65.14  | Q       |         |         |        V|
  23+50     276.6575     64.73  |Q        |         |         |        V|
  23+55     277.1006     64.33  |Q        |         |         |        V|
  24+ 0     277.5409     63.93  |Q        |         |         |        V|
  24+ 5     277.9753     63.07  |Q        |         |         |        V|
  24+10     278.3992     61.56  |Q        |         |         |        V|
  24+15     278.8068     59.18  |Q        |         |         |        V|
  24+20     279.1866     55.14  |Q        |         |         |        V|
  24+25     279.5314     50.08  |Q        |         |         |        V|
  24+30     279.8371     44.38  |Q        |         |         |        V|
  24+35     280.0981     37.90  |Q        |         |         |        V|
  24+40     280.3075     30.40  Q         |         |         |        V|
  24+45     280.4641     22.75  Q         |         |         |        V|
  24+50     280.5794     16.73  Q         |         |         |        V|
  24+55     280.6690     13.01  Q         |         |         |        V|
  25+ 0     280.7321      9.16  Q         |         |         |        V|
  25+ 5     280.7783      6.72  Q         |         |         |        V|
  25+10     280.8129      5.02  Q         |         |         |        V|
  25+15     280.8374      3.56  Q         |         |         |        V|
  25+20     280.8547      2.51  Q         |         |         |        V|
  25+25     280.8671      1.79  Q         |         |         |        V|
  25+30     280.8758      1.27  Q         |         |         |        V|
  25+35     280.8830      1.05  Q         |         |         |        V|
  25+40     280.8891      0.89  Q         |         |         |        V|
  25+45     280.8942      0.74  Q         |         |         |        V|
  25+50     280.8983      0.59  Q         |         |         |        V|
  25+55     280.9012      0.43  Q         |         |         |        V|
  26+ 0     280.9032      0.28  Q         |         |         |        V|
  26+ 5     280.9041      0.13  Q         |         |         |        V|
-------------------------------------------------------------------------
```

APPENDIX B.3: UNIT HYDROGRAPH METHOD ANALYSIS, NODE 110

U n i t H y d r o g r a p h A n a l y s i s

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Study date 04/20/20

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6269

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR UNIT HYDROGRAPH METHOD
FN:ARA110UH24.UBM

Storm Event Year = 100

Antecedent Moisture Condition = 2

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
1605.30	1	1.35
Rainfall data for year 100		
1605.30	6	2.84
Rainfall data for year 100		
1605.30	24	5.42

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 2)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.6	32.6	1605.30	1.000	0.974	0.412	0.401

Area-averaged adjusted loss rate Fm (In/Hr) = 0.401

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC2)	S	Pervious Yield Fr
661.38	0.412	32.6	32.6	20.67	0.014
943.92	0.588	98.0	98.0	0.20	0.956

Area-averaged catchment yield fraction, Y = 0.568
Area-averaged low loss fraction, Yb = 0.432
User entry of time of concentration = 0.916 (hours)

++

Watershed area = 1605.30(Ac.)
Catchment Lag time = 0.733 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 11.3744
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.401(In/Hr)
Average low loss rate fraction (Yb) = 0.432 (decimal)
VALLEY DEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.500(In)
Computed peak 30-minute rainfall = 1.023(In)
Specified peak 1-hour rainfall = 1.350(In)
Computed peak 3-hour rainfall = 2.130(In)
Specified peak 6-hour rainfall = 2.840(In)
Specified peak 24-hour rainfall = 5.420(In)

Rainfall depth area reduction factors:
Using a total area of 1605.30(Ac.) (Ref: fig. E-4)

5-minute factor = 0.925 Adjusted rainfall = 0.462(In)
30-minute factor = 0.925 Adjusted rainfall = 0.946(In)
1-hour factor = 0.925 Adjusted rainfall = 1.248(In)
3-hour factor = 0.990 Adjusted rainfall = 2.110(In)
6-hour factor = 0.995 Adjusted rainfall = 2.826(In)
24-hour factor = 0.998 Adjusted rainfall = 5.409(In)

U n i t H y d r o g r a p h

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 19414.10 (CFS))	
1	0.641	124.371
2	2.122	287.683
3	4.299	422.508
4	8.252	767.491
5	14.057	1127.049
6	20.789	1306.873
7	28.284	1455.079
8	36.703	1634.543
9	46.571	1915.821
10	56.593	1945.622
11	66.887	1998.381
12	74.097	1399.900
13	78.894	931.282
14	84.101	1010.837
15	88.306	816.388
16	90.487	423.427
17	92.780	445.099
18	94.620	357.225
19	95.981	264.213
20	96.969	191.876
21	97.740	149.646
22	98.202	89.692
23	98.407	39.753
24	98.611	39.752
25	98.816	39.752
26	99.021	39.752
27	99.226	39.731
28	99.430	39.739
29	99.635	39.752
30	99.838	39.331
31	100.000	31.527

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4620	0.4620
2	0.6097	0.1476
3	0.7170	0.1074

4	0.8045	0.0874
5	0.8796	0.0751
6	0.9461	0.0665
7	1.0063	0.0602
8	1.0615	0.0552
9	1.1127	0.0512
10	1.1606	0.0479
11	1.2057	0.0451
12	1.2484	0.0427
13	1.2971	0.0486
14	1.3438	0.0467
15	1.3888	0.0450
16	1.4323	0.0435
17	1.4743	0.0421
18	1.5151	0.0408
19	1.5548	0.0396
20	1.5933	0.0386
21	1.6309	0.0376
22	1.6675	0.0366
23	1.7033	0.0358
24	1.7383	0.0350
25	1.7725	0.0342
26	1.8060	0.0335
27	1.8388	0.0328
28	1.8711	0.0322
29	1.9027	0.0316
30	1.9337	0.0311
31	1.9643	0.0305
32	1.9943	0.0300
33	2.0238	0.0295
34	2.0528	0.0291
35	2.0815	0.0286
36	2.1097	0.0282
37	2.1342	0.0245
38	2.1583	0.0241
39	2.1821	0.0238
40	2.2055	0.0234
41	2.2286	0.0231
42	2.2513	0.0228
43	2.2738	0.0224
44	2.2959	0.0221
45	2.3178	0.0219
46	2.3394	0.0216
47	2.3607	0.0213
48	2.3817	0.0210
49	2.4025	0.0208
50	2.4231	0.0206
51	2.4434	0.0203
52	2.4635	0.0201
53	2.4833	0.0199
54	2.5030	0.0196
55	2.5224	0.0194
56	2.5417	0.0192
57	2.5607	0.0190
58	2.5795	0.0188
59	2.5982	0.0187
60	2.6167	0.0185
61	2.6350	0.0183
62	2.6531	0.0181
63	2.6711	0.0180
64	2.6889	0.0178
65	2.7065	0.0176
66	2.7240	0.0175
67	2.7413	0.0173
68	2.7585	0.0172
69	2.7755	0.0170
70	2.7924	0.0169
71	2.8091	0.0168
72	2.8258	0.0166
73	2.8441	0.0183
74	2.8622	0.0182

75	2.8803	0.0181
76	2.8982	0.0179
77	2.9160	0.0178
78	2.9337	0.0177
79	2.9513	0.0176
80	2.9687	0.0174
81	2.9860	0.0173
82	3.0032	0.0172
83	3.0203	0.0171
84	3.0373	0.0170
85	3.0542	0.0169
86	3.0710	0.0168
87	3.0877	0.0167
88	3.1042	0.0166
89	3.1207	0.0165
90	3.1371	0.0164
91	3.1534	0.0163
92	3.1695	0.0162
93	3.1856	0.0161
94	3.2016	0.0160
95	3.2175	0.0159
96	3.2334	0.0158
97	3.2491	0.0157
98	3.2647	0.0156
99	3.2803	0.0156
100	3.2958	0.0155
101	3.3112	0.0154
102	3.3265	0.0153
103	3.3417	0.0152
104	3.3569	0.0152
105	3.3720	0.0151
106	3.3870	0.0150
107	3.4019	0.0149
108	3.4167	0.0149
109	3.4315	0.0148
110	3.4462	0.0147
111	3.4609	0.0146
112	3.4754	0.0146
113	3.4899	0.0145
114	3.5044	0.0144
115	3.5187	0.0144
116	3.5330	0.0143
117	3.5473	0.0142
118	3.5614	0.0142
119	3.5755	0.0141
120	3.5896	0.0140
121	3.6036	0.0140
122	3.6175	0.0139
123	3.6313	0.0139
124	3.6451	0.0138
125	3.6589	0.0137
126	3.6726	0.0137
127	3.6862	0.0136
128	3.6997	0.0136
129	3.7133	0.0135
130	3.7267	0.0135
131	3.7401	0.0134
132	3.7535	0.0133
133	3.7667	0.0133
134	3.7800	0.0132
135	3.7932	0.0132
136	3.8063	0.0131
137	3.8194	0.0131
138	3.8324	0.0130
139	3.8454	0.0130
140	3.8583	0.0129
141	3.8712	0.0129
142	3.8841	0.0128
143	3.8968	0.0128
144	3.9096	0.0127
145	3.9223	0.0127

146	3.9349	0.0126
147	3.9475	0.0126
148	3.9601	0.0126
149	3.9726	0.0125
150	3.9851	0.0125
151	3.9975	0.0124
152	4.0099	0.0124
153	4.0222	0.0123
154	4.0345	0.0123
155	4.0467	0.0122
156	4.0589	0.0122
157	4.0711	0.0122
158	4.0832	0.0121
159	4.0953	0.0121
160	4.1074	0.0120
161	4.1194	0.0120
162	4.1313	0.0120
163	4.1433	0.0119
164	4.1551	0.0119
165	4.1670	0.0118
166	4.1788	0.0118
167	4.1906	0.0118
168	4.2023	0.0117
169	4.2140	0.0117
170	4.2257	0.0117
171	4.2373	0.0116
172	4.2489	0.0116
173	4.2604	0.0116
174	4.2719	0.0115
175	4.2834	0.0115
176	4.2949	0.0114
177	4.3063	0.0114
178	4.3177	0.0114
179	4.3290	0.0113
180	4.3403	0.0113
181	4.3516	0.0113
182	4.3628	0.0112
183	4.3740	0.0112
184	4.3852	0.0112
185	4.3964	0.0111
186	4.4075	0.0111
187	4.4186	0.0111
188	4.4296	0.0111
189	4.4406	0.0110
190	4.4516	0.0110
191	4.4626	0.0110
192	4.4735	0.0109
193	4.4844	0.0109
194	4.4953	0.0109
195	4.5061	0.0108
196	4.5169	0.0108
197	4.5277	0.0108
198	4.5385	0.0108
199	4.5492	0.0107
200	4.5599	0.0107
201	4.5705	0.0107
202	4.5812	0.0106
203	4.5918	0.0106
204	4.6024	0.0106
205	4.6129	0.0106
206	4.6234	0.0105
207	4.6339	0.0105
208	4.6444	0.0105
209	4.6549	0.0104
210	4.6653	0.0104
211	4.6757	0.0104
212	4.6860	0.0104
213	4.6964	0.0103
214	4.7067	0.0103
215	4.7170	0.0103
216	4.7272	0.0103

217	4.7375	0.0102
218	4.7477	0.0102
219	4.7579	0.0102
220	4.7680	0.0102
221	4.7782	0.0101
222	4.7883	0.0101
223	4.7984	0.0101
224	4.8085	0.0101
225	4.8185	0.0100
226	4.8285	0.0100
227	4.8385	0.0100
228	4.8485	0.0100
229	4.8584	0.0099
230	4.8684	0.0099
231	4.8783	0.0099
232	4.8881	0.0099
233	4.8980	0.0099
234	4.9078	0.0098
235	4.9176	0.0098
236	4.9274	0.0098
237	4.9372	0.0098
238	4.9470	0.0097
239	4.9567	0.0097
240	4.9664	0.0097
241	4.9761	0.0097
242	4.9857	0.0097
243	4.9954	0.0096
244	5.0050	0.0096
245	5.0146	0.0096
246	5.0242	0.0096
247	5.0337	0.0096
248	5.0432	0.0095
249	5.0528	0.0095
250	5.0623	0.0095
251	5.0717	0.0095
252	5.0812	0.0095
253	5.0906	0.0094
254	5.1000	0.0094
255	5.1094	0.0094
256	5.1188	0.0094
257	5.1282	0.0094
258	5.1375	0.0093
259	5.1468	0.0093
260	5.1561	0.0093
261	5.1654	0.0093
262	5.1746	0.0093
263	5.1839	0.0092
264	5.1931	0.0092
265	5.2023	0.0092
266	5.2115	0.0092
267	5.2207	0.0092
268	5.2298	0.0091
269	5.2389	0.0091
270	5.2481	0.0091
271	5.2572	0.0091
272	5.2662	0.0091
273	5.2753	0.0091
274	5.2843	0.0090
275	5.2934	0.0090
276	5.3024	0.0090
277	5.3114	0.0090
278	5.3203	0.0090
279	5.3293	0.0090
280	5.3382	0.0089
281	5.3471	0.0089
282	5.3560	0.0089
283	5.3649	0.0089
284	5.3738	0.0089
285	5.3827	0.0089
286	5.3915	0.0088
287	5.4003	0.0088

288 5.4091 0.0088

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0088	0.0038	0.0050
2	0.0088	0.0038	0.0050
3	0.0089	0.0038	0.0050
4	0.0089	0.0038	0.0050
5	0.0089	0.0038	0.0051
6	0.0089	0.0039	0.0051
7	0.0090	0.0039	0.0051
8	0.0090	0.0039	0.0051
9	0.0090	0.0039	0.0051
10	0.0090	0.0039	0.0051
11	0.0091	0.0039	0.0051
12	0.0091	0.0039	0.0052
13	0.0091	0.0039	0.0052
14	0.0091	0.0039	0.0052
15	0.0092	0.0040	0.0052
16	0.0092	0.0040	0.0052
17	0.0092	0.0040	0.0052
18	0.0092	0.0040	0.0052
19	0.0093	0.0040	0.0053
20	0.0093	0.0040	0.0053
21	0.0093	0.0040	0.0053
22	0.0094	0.0040	0.0053
23	0.0094	0.0041	0.0053
24	0.0094	0.0041	0.0053
25	0.0095	0.0041	0.0054
26	0.0095	0.0041	0.0054
27	0.0095	0.0041	0.0054
28	0.0095	0.0041	0.0054
29	0.0096	0.0041	0.0054
30	0.0096	0.0041	0.0055
31	0.0096	0.0042	0.0055
32	0.0097	0.0042	0.0055
33	0.0097	0.0042	0.0055
34	0.0097	0.0042	0.0055
35	0.0098	0.0042	0.0055
36	0.0098	0.0042	0.0056
37	0.0098	0.0042	0.0056
38	0.0099	0.0043	0.0056
39	0.0099	0.0043	0.0056
40	0.0099	0.0043	0.0056
41	0.0100	0.0043	0.0057
42	0.0100	0.0043	0.0057
43	0.0100	0.0043	0.0057
44	0.0101	0.0043	0.0057
45	0.0101	0.0044	0.0057
46	0.0101	0.0044	0.0058
47	0.0102	0.0044	0.0058
48	0.0102	0.0044	0.0058
49	0.0103	0.0044	0.0058
50	0.0103	0.0044	0.0058
51	0.0103	0.0045	0.0059
52	0.0104	0.0045	0.0059
53	0.0104	0.0045	0.0059
54	0.0104	0.0045	0.0059
55	0.0105	0.0045	0.0060
56	0.0105	0.0045	0.0060
57	0.0106	0.0046	0.0060
58	0.0106	0.0046	0.0060
59	0.0107	0.0046	0.0061
60	0.0107	0.0046	0.0061
61	0.0108	0.0046	0.0061
62	0.0108	0.0047	0.0061
63	0.0108	0.0047	0.0062
64	0.0109	0.0047	0.0062
65	0.0109	0.0047	0.0062

66	0.0110	0.0047	0.0062
67	0.0110	0.0048	0.0063
68	0.0111	0.0048	0.0063
69	0.0111	0.0048	0.0063
70	0.0111	0.0048	0.0063
71	0.0112	0.0048	0.0064
72	0.0112	0.0049	0.0064
73	0.0113	0.0049	0.0064
74	0.0113	0.0049	0.0064
75	0.0114	0.0049	0.0065
76	0.0114	0.0049	0.0065
77	0.0115	0.0050	0.0065
78	0.0116	0.0050	0.0066
79	0.0116	0.0050	0.0066
80	0.0117	0.0050	0.0066
81	0.0117	0.0051	0.0067
82	0.0118	0.0051	0.0067
83	0.0118	0.0051	0.0067
84	0.0119	0.0051	0.0068
85	0.0120	0.0052	0.0068
86	0.0120	0.0052	0.0068
87	0.0121	0.0052	0.0069
88	0.0121	0.0052	0.0069
89	0.0122	0.0053	0.0069
90	0.0122	0.0053	0.0070
91	0.0123	0.0053	0.0070
92	0.0124	0.0053	0.0070
93	0.0125	0.0054	0.0071
94	0.0125	0.0054	0.0071
95	0.0126	0.0054	0.0072
96	0.0126	0.0055	0.0072
97	0.0127	0.0055	0.0072
98	0.0128	0.0055	0.0073
99	0.0129	0.0056	0.0073
100	0.0129	0.0056	0.0073
101	0.0130	0.0056	0.0074
102	0.0131	0.0057	0.0074
103	0.0132	0.0057	0.0075
104	0.0132	0.0057	0.0075
105	0.0133	0.0058	0.0076
106	0.0134	0.0058	0.0076
107	0.0135	0.0058	0.0077
108	0.0136	0.0059	0.0077
109	0.0137	0.0059	0.0078
110	0.0137	0.0059	0.0078
111	0.0139	0.0060	0.0079
112	0.0139	0.0060	0.0079
113	0.0140	0.0061	0.0080
114	0.0141	0.0061	0.0080
115	0.0142	0.0061	0.0081
116	0.0143	0.0062	0.0081
117	0.0144	0.0062	0.0082
118	0.0145	0.0063	0.0082
119	0.0146	0.0063	0.0083
120	0.0147	0.0064	0.0084
121	0.0149	0.0064	0.0084
122	0.0149	0.0064	0.0085
123	0.0151	0.0065	0.0086
124	0.0152	0.0065	0.0086
125	0.0153	0.0066	0.0087
126	0.0154	0.0067	0.0087
127	0.0156	0.0067	0.0088
128	0.0156	0.0068	0.0089
129	0.0158	0.0068	0.0090
130	0.0159	0.0069	0.0090
131	0.0161	0.0070	0.0091
132	0.0162	0.0070	0.0092
133	0.0164	0.0071	0.0093
134	0.0165	0.0071	0.0094
135	0.0167	0.0072	0.0095
136	0.0168	0.0072	0.0095

137	0.0170	0.0073	0.0096
138	0.0171	0.0074	0.0097
139	0.0173	0.0075	0.0098
140	0.0174	0.0075	0.0099
141	0.0177	0.0076	0.0100
142	0.0178	0.0077	0.0101
143	0.0181	0.0078	0.0103
144	0.0182	0.0079	0.0103
145	0.0166	0.0072	0.0094
146	0.0168	0.0072	0.0095
147	0.0170	0.0074	0.0097
148	0.0172	0.0074	0.0098
149	0.0175	0.0076	0.0099
150	0.0176	0.0076	0.0100
151	0.0180	0.0078	0.0102
152	0.0181	0.0078	0.0103
153	0.0185	0.0080	0.0105
154	0.0187	0.0081	0.0106
155	0.0190	0.0082	0.0108
156	0.0192	0.0083	0.0109
157	0.0196	0.0085	0.0112
158	0.0199	0.0086	0.0113
159	0.0203	0.0088	0.0115
160	0.0206	0.0089	0.0117
161	0.0210	0.0091	0.0120
162	0.0213	0.0092	0.0121
163	0.0219	0.0094	0.0124
164	0.0221	0.0096	0.0126
165	0.0228	0.0098	0.0129
166	0.0231	0.0100	0.0131
167	0.0238	0.0103	0.0135
168	0.0241	0.0104	0.0137
169	0.0282	0.0122	0.0160
170	0.0286	0.0124	0.0163
171	0.0295	0.0128	0.0168
172	0.0300	0.0130	0.0170
173	0.0311	0.0134	0.0176
174	0.0316	0.0137	0.0180
175	0.0328	0.0142	0.0187
176	0.0335	0.0145	0.0190
177	0.0350	0.0151	0.0199
178	0.0358	0.0155	0.0203
179	0.0376	0.0162	0.0213
180	0.0386	0.0167	0.0219
181	0.0408	0.0176	0.0232
182	0.0421	0.0182	0.0239
183	0.0450	0.0194	0.0256
184	0.0467	0.0202	0.0265
185	0.0427	0.0184	0.0243
186	0.0451	0.0195	0.0256
187	0.0512	0.0221	0.0291
188	0.0552	0.0239	0.0314
189	0.0665	0.0287	0.0378
190	0.0751	0.0324	0.0427
191	0.1074	0.0335	0.0739
192	0.1476	0.0335	0.1142
193	0.4620	0.0335	0.4286
194	0.0874	0.0335	0.0540
195	0.0602	0.0260	0.0342
196	0.0479	0.0207	0.0272
197	0.0486	0.0210	0.0276
198	0.0435	0.0188	0.0247
199	0.0396	0.0171	0.0225
200	0.0366	0.0158	0.0208
201	0.0342	0.0148	0.0194
202	0.0322	0.0139	0.0183
203	0.0305	0.0132	0.0173
204	0.0291	0.0126	0.0165
205	0.0245	0.0106	0.0139
206	0.0234	0.0101	0.0133
207	0.0224	0.0097	0.0127

208	0.0216	0.0093	0.0123
209	0.0208	0.0090	0.0118
210	0.0201	0.0087	0.0114
211	0.0194	0.0084	0.0110
212	0.0188	0.0081	0.0107
213	0.0183	0.0079	0.0104
214	0.0178	0.0077	0.0101
215	0.0173	0.0075	0.0098
216	0.0169	0.0073	0.0096
217	0.0183	0.0079	0.0104
218	0.0179	0.0077	0.0102
219	0.0176	0.0076	0.0100
220	0.0172	0.0074	0.0098
221	0.0169	0.0073	0.0096
222	0.0166	0.0072	0.0094
223	0.0163	0.0070	0.0092
224	0.0160	0.0069	0.0091
225	0.0157	0.0068	0.0089
226	0.0155	0.0067	0.0088
227	0.0152	0.0066	0.0087
228	0.0150	0.0065	0.0085
229	0.0148	0.0064	0.0084
230	0.0146	0.0063	0.0083
231	0.0144	0.0062	0.0082
232	0.0142	0.0061	0.0080
233	0.0140	0.0060	0.0079
234	0.0138	0.0060	0.0078
235	0.0136	0.0059	0.0077
236	0.0135	0.0058	0.0076
237	0.0133	0.0057	0.0075
238	0.0131	0.0057	0.0075
239	0.0130	0.0056	0.0074
240	0.0128	0.0055	0.0073
241	0.0127	0.0055	0.0072
242	0.0126	0.0054	0.0071
243	0.0124	0.0054	0.0071
244	0.0123	0.0053	0.0070
245	0.0122	0.0053	0.0069
246	0.0120	0.0052	0.0068
247	0.0119	0.0052	0.0068
248	0.0118	0.0051	0.0067
249	0.0117	0.0051	0.0066
250	0.0116	0.0050	0.0066
251	0.0115	0.0050	0.0065
252	0.0114	0.0049	0.0065
253	0.0113	0.0049	0.0064
254	0.0112	0.0048	0.0063
255	0.0111	0.0048	0.0063
256	0.0110	0.0047	0.0062
257	0.0109	0.0047	0.0062
258	0.0108	0.0047	0.0061
259	0.0107	0.0046	0.0061
260	0.0106	0.0046	0.0060
261	0.0106	0.0046	0.0060
262	0.0105	0.0045	0.0059
263	0.0104	0.0045	0.0059
264	0.0103	0.0045	0.0059
265	0.0102	0.0044	0.0058
266	0.0102	0.0044	0.0058
267	0.0101	0.0044	0.0057
268	0.0100	0.0043	0.0057
269	0.0099	0.0043	0.0057
270	0.0099	0.0043	0.0056
271	0.0098	0.0042	0.0056
272	0.0097	0.0042	0.0055
273	0.0097	0.0042	0.0055
274	0.0096	0.0042	0.0055
275	0.0096	0.0041	0.0054
276	0.0095	0.0041	0.0054
277	0.0094	0.0041	0.0054
278	0.0094	0.0041	0.0053

279	0.0093	0.0040	0.0053
280	0.0093	0.0040	0.0053
281	0.0092	0.0040	0.0052
282	0.0091	0.0040	0.0052
283	0.0091	0.0039	0.0052
284	0.0090	0.0039	0.0051
285	0.0090	0.0039	0.0051
286	0.0089	0.0039	0.0051
287	0.0089	0.0038	0.0050
288	0.0088	0.0038	0.0050

Total soil rain loss = 2.12(In)
Total effective rainfall = 3.29(In)
Peak flow rate in flood hydrograph = 1637.28(CFS)

++

24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	425.0	850.0	1275.0	1700.0
0+ 5	0.0043	0.62	Q				
0+10	0.0185	2.06	Q				
0+15	0.0473	4.18	Q				
0+20	0.1026	8.03	Q				
0+25	0.1968	13.68	Q				
0+30	0.3363	20.26	Q				
0+35	0.5263	27.59	Q				
0+40	0.7731	35.83	Q				
0+45	1.0865	45.51	VQ				
0+50	1.4678	55.37	VQ				
0+55	1.9190	65.51	VQ				
1+ 0	2.4197	72.69	VQ				
1+ 5	2.9538	77.55	VQ				
1+10	3.5242	82.83	VQ				
1+15	4.1244	87.15	V Q				
1+20	4.7409	89.51	V Q				
1+25	5.3745	92.00	V Q				
1+30	6.0222	94.05	V Q				
1+35	6.6809	95.64	V Q				
1+40	7.3481	96.88	V Q				
1+45	8.0224	97.91	V Q				
1+50	8.7018	98.65	V Q				
1+55	9.3846	99.14	V Q				
2+ 0	10.0709	99.64	V Q				
2+ 5	10.7605	100.14	V Q				
2+10	11.4536	100.64	|VQ				
2+15	12.1502	101.14	|VQ				
2+20	12.8502	101.65	|VQ				
2+25	13.5538	102.16	|VQ				
2+30	14.2609	102.67	|VQ				
2+35	14.9713	103.15	|VQ				
2+40	15.6839	103.47	|VQ				
2+45	16.3988	103.80	|VQ				
2+50	17.1159	104.12	|VQ				
2+55	17.8353	104.46	|VQ				
3+ 0	18.5570	104.79	|VQ				
3+ 5	19.2810	105.13	|VQ				
3+10	20.0074	105.47	|VQ				
3+15	20.7361	105.81	|VQ				
3+20	21.4672	106.16	|VQ				
3+25	22.2007	106.51	| Q				
3+30	22.9367	106.86	| Q				
3+35	23.6751	107.22	| Q				
3+40	24.4160	107.58	| Q				
3+45	25.1594	107.94	| Q				
3+50	25.9054	108.31	| Q				

3+55	26.6539	108.68	Q				
4+ 0	27.4050	109.06	Q				
4+ 5	28.1586	109.44	Q				
4+10	28.9150	109.82	Q				
4+15	29.6739	110.20	Q				
4+20	30.4356	110.59	Q				
4+25	31.2000	110.99	Q				
4+30	31.9671	111.39	Q				
4+35	32.7370	111.79	Q				
4+40	33.5097	112.19	QV				
4+45	34.2852	112.61	QV				
4+50	35.0636	113.02	QV				
4+55	35.8449	113.44	QV				
5+ 0	36.6291	113.87	QV				
5+ 5	37.4163	114.30	QV				
5+10	38.2064	114.73	QV				
5+15	38.9996	115.17	QV				
5+20	39.7958	115.61	QV				
5+25	40.5951	116.06	QV				
5+30	41.3975	116.51	QV				
5+35	42.2031	116.97	QV				
5+40	43.0119	117.43	QV				
5+45	43.8239	117.90	QV				
5+50	44.6391	118.38	Q V				
5+55	45.4577	118.86	Q V				
6+ 0	46.2796	119.34	Q V				
6+ 5	47.1049	119.84	Q V				
6+10	47.9337	120.33	Q V				
6+15	48.7659	120.84	Q V				
6+20	49.6016	121.34	Q V				
6+25	50.4408	121.86	Q V				
6+30	51.2837	122.38	Q V				
6+35	52.1302	122.91	Q V				
6+40	52.9803	123.44	Q V				
6+45	53.8342	123.99	Q V				
6+50	54.6919	124.54	Q V				
6+55	55.5534	125.09	Q V				
7+ 0	56.4188	125.65	Q V				
7+ 5	57.2882	126.23	Q V				
7+10	58.1615	126.80	Q V				
7+15	59.0388	127.39	Q V				
7+20	59.9202	127.98	Q V				
7+25	60.8058	128.59	Q V				
7+30	61.6956	129.19	Q V				
7+35	62.5896	129.81	Q V				
7+40	63.4880	130.44	Q V				
7+45	64.3907	131.08	Q V				
7+50	65.2979	131.72	Q V				
7+55	66.2095	132.38	Q V				
8+ 0	67.1258	133.04	Q V				
8+ 5	68.0467	133.71	Q V				
8+10	68.9722	134.39	Q V				
8+15	69.9026	135.09	Q V				
8+20	70.8378	135.79	Q V				
8+25	71.7780	136.51	Q V				
8+30	72.7231	137.23	Q V				
8+35	73.6733	137.97	Q V				
8+40	74.6286	138.72	Q V				
8+45	75.5892	139.48	Q V				
8+50	76.5551	140.25	Q V				
8+55	77.5264	141.04	Q V				
9+ 0	78.5032	141.83	Q V				
9+ 5	79.4856	142.64	Q V				
9+10	80.4736	143.46	Q V				
9+15	81.4675	144.31	Q V				
9+20	82.4672	145.15	Q V				
9+25	83.4729	146.03	Q V				
9+30	84.4846	146.90	Q V				
9+35	85.5025	147.81	Q V				
9+40	86.5267	148.72	Q V				
9+45	87.5574	149.65	Q V				

9+50	88.5945	150.59	Q V				
9+55	89.6383	151.56	Q V				
10+ 0	90.6889	152.54	Q V				
10+ 5	91.7464	153.55	Q V				
10+10	92.8109	154.56	Q V				
10+15	93.8825	155.61	Q V				
10+20	94.9615	156.66	Q V				
10+25	96.0479	157.75	Q V				
10+30	97.1419	158.85	Q V				
10+35	98.2438	159.98	Q V				
10+40	99.3535	161.13	Q V				
10+45	100.4713	162.31	Q V				
10+50	101.5973	163.50	Q V				
10+55	102.7318	164.73	Q V				
11+ 0	103.8750	165.98	Q V				
11+ 5	105.0269	167.27	Q V				
11+10	106.1879	168.57	Q V				
11+15	107.3581	169.92	Q V				
11+20	108.5377	171.28	Q V				
11+25	109.7271	172.69	Q V				
11+30	110.9263	174.12	Q V				
11+35	112.1356	175.60	Q V				
11+40	113.3554	177.10	Q V				
11+45	114.5858	178.66	Q V				
11+50	115.8271	180.24	Q V				
11+55	117.0797	181.87	Q V				
12+ 0	118.3437	183.54	Q V				
12+ 5	119.6188	185.13	Q V				
12+10	120.9038	186.59	Q V				
12+15	122.1984	187.97	Q V				
12+20	123.5002	189.03	Q V				
12+25	124.8073	189.78	Q V				
12+30	126.1184	190.38	Q V				
12+35	127.4332	190.90	Q V				
12+40	128.7505	191.28	Q V				
12+45	130.0690	191.44	Q V				
12+50	131.3887	191.62	Q V				
12+55	132.7099	191.84	Q V				
13+ 0	134.0372	192.73	Q V				
13+ 5	135.3748	194.21	Q V				
13+10	136.7224	195.68	Q V				
13+15	138.0823	197.46	Q V				
13+20	139.4578	199.72	Q V				
13+25	140.8497	202.10	Q V				
13+30	142.2591	204.65	Q V				
13+35	143.6878	207.45	Q V				
13+40	145.1370	210.42	Q V				
13+45	146.6081	213.61	Q V				
13+50	148.1024	216.97	Q V				
13+55	149.6216	220.59	Q V				
14+ 0	151.1667	224.34	Q V				
14+ 5	152.7407	228.55	Q V				
14+10	154.3470	233.23	Q V				
14+15	155.9891	238.43	Q V				
14+20	157.6728	244.48	Q V				
14+25	159.4049	251.51	Q V				
14+30	161.1895	259.13	Q V				
14+35	163.0312	267.41	Q V				
14+40	164.9346	276.38	Q V				
14+45	166.9066	286.33	Q V				
14+50	168.9502	296.73	Q V				
14+55	171.0700	307.80	Q V				
15+ 0	173.2619	318.26	Q V				
15+ 5	175.5247	328.56	Q V				
15+10	177.8641	339.67	Q V				
15+15	180.2837	351.33	Q V				
15+20	182.7848	363.16	Q V				
15+25	185.3724	375.71	Q V				
15+30	188.0489	388.63	Q V				
15+35	190.8212	402.54	Q V				
15+40	193.6911	416.71	Q V				

15+45	196.6667	432.05	| Q V |	|	|
15+50	199.7655	449.95	| Q V |	|	|
15+55	203.0352	474.75	|Q V |	|	|
16+ 0	206.5653	512.57	| Q V |	|	|
16+ 5	210.7208	603.39	| Q V|	|	|
16+10	215.6618	717.43	| Q V|	|	|
16+15	221.4228	836.50	| QV	|	|
16+20	228.5328	1032.36	| V Q	|	|
16+25	236.9526	1222.56	| V Q |	|	|
16+30	246.1518	1335.73	| V | Q |	|	|
16+35	256.0090	1431.27	| V | Q |	|	|
16+40	266.5384	1528.87	| V | Q |	|	|
16+45	277.8144	1637.28	| V | Q	|	|
16+50	288.9887	1622.51	| V | Q	|	|
16+55	299.7560	1563.40	| V | Q	|	|
17+ 0	308.5113	1271.28	| VQ|	|	|
17+ 5	315.7215	1046.92	| Q V |	|	|
17+10	322.6811	1010.53	| Q V|	|	|
17+15	328.7254	877.64	| Q V|	|	|
17+20	333.4745	689.57	| Q | V	|	|
17+25	337.9551	650.58	| Q | V	|	|
17+30	341.9437	579.14	| Q | |V	|	|
17+35	345.4489	508.97	|Q | |V	|	|
17+40	348.5413	449.01	| Q | |V	|	|
17+45	351.3137	402.56	| Q| |V	|	|
17+50	353.7534	354.24	| Q | | V	|	|
17+55	355.9232	315.05	| Q | | V	|	|
18+ 0	357.9783	298.40	| Q | | V	|	|
18+ 5	359.9425	285.21	| Q | | V	|	|
18+10	361.8244	273.25	| Q | | V	|	|
18+15	363.6332	262.64	| Q | | V	|	|
18+20	365.3814	253.83	| Q | | V	|	|
18+25	367.0735	245.70	| Q | | V	|	|
18+30	368.7066	237.12	| Q | | V	|	|
18+35	370.2620	225.84	| Q | | V	|	|
18+40	371.6969	208.35	| Q | | V	|	|
18+45	373.0991	203.59	| Q | | V	|	|
18+50	374.4764	199.99	| Q | | V	|	|
18+55	375.8335	197.05	| Q | | V	|	|
19+ 0	377.1680	193.76	| Q | | V	|	|
19+ 5	378.4788	190.33	| Q | | V	|	|
19+10	379.7685	187.27	| Q | | V	|	|
19+15	381.0376	184.27	| Q | | V	|	|
19+20	382.2846	181.08	| Q | | V	|	|
19+25	383.5113	178.11	| Q | | V	|	|
19+30	384.7182	175.24	| Q | | V	|	|
19+35	385.9059	172.45	| Q | | V	|	|
19+40	387.0752	169.79	| Q | | V	|	|
19+45	388.2269	167.22	| Q | | V	|	|
19+50	389.3614	164.72	| Q | | V	|	|
19+55	390.4790	162.29	| Q | | V	|	|
20+ 0	391.5806	159.96	| Q | | V	|	|
20+ 5	392.6669	157.73	| Q | | V	|	|
20+10	393.7385	155.59	| Q | | V	|	|
20+15	394.7959	153.54	| Q | | V	|	|
20+20	395.8397	151.57	| Q | | V	|	|
20+25	396.8705	149.67	| Q | | V	|	|
20+30	397.8887	147.85	| Q | | V	|	|
20+35	398.8948	146.08	| Q | | V	|	|
20+40	399.8889	144.34	| Q | | V	|	|
20+45	400.8715	142.67	| Q | | V	|	|
20+50	401.8428	141.04	| Q | | V	|	|
20+55	402.8034	139.48	| Q | | V	|	|
21+ 0	403.7535	137.96	| Q | | V	|	|
21+ 5	404.6935	136.48	| Q | | V	|	|
21+10	405.6237	135.06	| Q | | V	|	|
21+15	406.5443	133.67	| Q | | V	|	|
21+20	407.4556	132.33	| Q | | V	|	|
21+25	408.3580	131.03	| Q | | V	|	|
21+30	409.2517	129.76	| Q | | V	|	|
21+35	410.1368	128.52	| Q | | V	|	|

```
   21+40     411.0137    127.32  | Q       |         |         |      V  |
   21+45     411.8825    126.16  | Q       |         |         |      V  |
   21+50     412.7436    125.02  | Q       |         |         |      V  |
   21+55     413.5969    123.91  | Q       |         |         |      V  |
   22+ 0     414.4429    122.83  | Q       |         |         |      V  |
   22+ 5     415.2816    121.78  | Q       |         |         |      V  |
   22+10     416.1132    120.75  | Q       |         |         |      V  |
   22+15     416.9379    119.75  | Q       |         |         |      V  |
   22+20     417.7559    118.77  | Q       |         |         |       V |
   22+25     418.5673    117.81  | Q       |         |         |       V |
   22+30     419.3723    116.88  | Q       |         |         |       V |
   22+35     420.1709    115.97  | Q       |         |         |       V |
   22+40     420.9635    115.08  | Q       |         |         |       V |
   22+45     421.7500    114.20  | Q       |         |         |       V |
   22+50     422.5306    113.35  | Q       |         |         |       V |
   22+55     423.3055    112.51  | Q       |         |         |       V |
   23+ 0     424.0748    111.70  | Q       |         |         |       V |
   23+ 5     424.8385    110.89  | Q       |         |         |       V |
   23+10     425.5968    110.11  | Q       |         |         |       V |
   23+15     426.3499    109.34  | Q       |         |         |       V |
   23+20     427.0977    108.59  | Q       |         |         |       V |
   23+25     427.8405    107.85  | Q       |         |         |       V |
   23+30     428.5783    107.12  | Q       |         |         |        V|
   23+35     429.3111    106.41  | Q       |         |         |        V|
   23+40     430.0392    105.72  | Q       |         |         |        V|
   23+45     430.7626    105.03  | Q       |         |         |        V|
   23+50     431.4813    104.36  | Q       |         |         |        V|
   23+55     432.1955    103.70  | Q       |         |         |        V|
   24+ 0     432.9053    103.06  | Q       |         |         |        V|
   24+ 5     433.6064    101.80  | Q       |         |         |        V|
   24+10     434.2933     99.74  | Q       |         |         |        V|
   24+15     434.9616     97.03  | Q       |         |         |        V|
   24+20     435.5995     92.62  | Q       |         |         |        V|
   24+25     436.1948     86.45  | Q       |         |         |        V|
   24+30     436.7418     79.41  |Q        |         |         |        V|
   24+35     437.2354     71.68  |Q        |         |         |        V|
   24+40     437.6701     63.11  |Q        |         |         |        V|
   24+45     438.0363     53.18  |Q        |         |         |        V|
   24+50     438.3336     43.16  |Q        |         |         |        V|
   24+55     438.5604     32.94  Q         |         |         |        V|
   25+ 0     438.7378     25.76  Q         |         |         |        V|
   25+ 5     438.8822     20.96  Q         |         |         |        V|
   25+10     438.9910     15.80  Q         |         |         |        V|
   25+15     439.0710     11.63  Q         |         |         |        V|
   25+20     439.1361      9.45  Q         |         |         |        V|
   25+25     439.1855      7.17  Q         |         |         |        V|
   25+30     439.2223      5.35  Q         |         |         |        V|
   25+35     439.2499      4.00  Q         |         |         |        V|
   25+40     439.2707      3.02  Q         |         |         |        V|
   25+45     439.2862      2.25  Q         |         |         |        V|
   25+50     439.2985      1.79  Q         |         |         |        V|
   25+55     439.3094      1.58  Q         |         |         |        V|
   26+ 0     439.3189      1.38  Q         |         |         |        V|
   26+ 5     439.3270      1.17  Q         |         |         |        V|
   26+10     439.3336      0.96  Q         |         |         |        V|
   26+15     439.3388      0.76  Q         |         |         |        V|
   26+20     439.3427      0.56  Q         |         |         |        V|
   26+25     439.3451      0.36  Q         |         |         |        V|
   26+30     439.3462      0.16  Q         |         |         |         V
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APPENDIX B.4: UNIT HYDROGRAPH METHOD ANALYSIS, NODE 111

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2004, Version 7.0

Study date 04/20/20

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6269

IVDA 3RD & 6TH STREET SPECIFIC PLAN
100-YEAR UNIT HYDROGRAPH METHOD
FN:ARA111UH24.UBM

Storm Event Year = 100

Antecedent Moisture Condition = 2

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
1746.90	1	1.35
Rainfall data for year 100		
1746.90	6	2.84
Rainfall data for year 100		
1746.90	24	5.42

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 2)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.8	32.8	1746.90	1.000	0.973	0.420	0.409

Area-averaged adjusted loss rate Fm (In/Hr) = 0.409

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC2)	S	Pervious Yield Fr
733.70	0.420	32.8	32.8	20.49	0.015
1013.20	0.580	98.0	98.0	0.20	0.956

Area-averaged catchment yield fraction, Y = 0.561
Area-averaged low loss fraction, Yb = 0.439
User entry of time of concentration = 1.060 (hours)

++

Watershed area = 1746.90(Ac.)
Catchment Lag time = 0.848 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 9.8252
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.409(In/Hr)
Average low loss rate fraction (Yb) = 0.439 (decimal)
VALLEY DEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.500(In)
Computed peak 30-minute rainfall = 1.023(In)
Specified peak 1-hour rainfall = 1.350(In)
Computed peak 3-hour rainfall = 2.130(In)
Specified peak 6-hour rainfall = 2.840(In)
Specified peak 24-hour rainfall = 5.420(In)

Rainfall depth area reduction factors:
Using a total area of 1746.90(Ac.) (Ref: fig. E-4)

5-minute factor = 0.918 Adjusted rainfall = 0.459(In)
30-minute factor = 0.918 Adjusted rainfall = 0.939(In)
1-hour factor = 0.918 Adjusted rainfall = 1.239(In)
3-hour factor = 0.990 Adjusted rainfall = 2.108(In)
6-hour factor = 0.995 Adjusted rainfall = 2.824(In)
24-hour factor = 0.998 Adjusted rainfall = 5.408(In)

U n i t H y d r o g r a p h

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 21126.57 (CFS))	
1	0.547	115.539
2	1.777	259.850
3	3.374	337.323
4	6.102	576.491
5	10.331	893.415
6	15.666	1126.982
7	21.600	1253.642
8	28.101	1373.575
9	35.275	1515.657
10	43.448	1726.510
11	52.314	1873.074
12	61.335	1905.979
13	69.425	1709.033
14	74.925	1161.957
15	79.014	863.910
16	83.502	948.194
17	87.634	872.983
18	89.601	415.595
19	91.642	431.019
20	93.477	387.838
21	94.940	308.996
22	96.063	237.157
23	96.916	180.358
24	97.595	143.313
25	98.111	109.119
26	98.310	41.973
27	98.487	37.367
28	98.664	37.367
29	98.840	37.367
30	99.017	37.367
31	99.194	37.349
32	99.371	37.347
33	99.548	37.367
34	99.725	37.367
35	99.890	34.956
36	100.000	23.237

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4587	0.4587
2	0.6053	0.1466
3	0.7119	0.1066
4	0.7987	0.0868
5	0.8733	0.0746
6	0.9393	0.0661
7	0.9991	0.0597
8	1.0539	0.0548
9	1.1047	0.0508
10	1.1523	0.0476
11	1.1971	0.0448
12	1.2395	0.0424
13	1.2883	0.0489
14	1.3353	0.0470
15	1.3806	0.0453
16	1.4244	0.0437
17	1.4667	0.0424
18	1.5078	0.0411
19	1.5477	0.0399
20	1.5866	0.0389
21	1.6244	0.0379
22	1.6614	0.0369
23	1.6974	0.0361
24	1.7327	0.0353
25	1.7673	0.0345
26	1.8011	0.0338
27	1.8342	0.0332
28	1.8668	0.0325
29	1.8987	0.0319
30	1.9301	0.0314
31	1.9609	0.0308
32	1.9912	0.0303
33	2.0211	0.0298
34	2.0504	0.0294
35	2.0794	0.0289
36	2.1079	0.0285
37	2.1324	0.0245
38	2.1565	0.0241
39	2.1803	0.0238
40	2.2037	0.0234
41	2.2268	0.0231
42	2.2496	0.0228
43	2.2721	0.0225
44	2.2942	0.0222
45	2.3161	0.0219
46	2.3377	0.0216
47	2.3590	0.0213
48	2.3801	0.0211
49	2.4009	0.0208
50	2.4215	0.0206
51	2.4418	0.0203
52	2.4619	0.0201
53	2.4818	0.0199
54	2.5014	0.0197
55	2.5209	0.0195
56	2.5401	0.0193
57	2.5592	0.0191
58	2.5781	0.0189
59	2.5967	0.0187
60	2.6152	0.0185
61	2.6335	0.0183
62	2.6517	0.0181
63	2.6697	0.0180
64	2.6875	0.0178
65	2.7051	0.0177
66	2.7226	0.0175
67	2.7400	0.0173
68	2.7571	0.0172
69	2.7742	0.0170

70	2.7911	0.0169
71	2.8079	0.0168
72	2.8245	0.0166
73	2.8428	0.0183
74	2.8610	0.0182
75	2.8790	0.0181
76	2.8970	0.0179
77	2.9148	0.0178
78	2.9324	0.0177
79	2.9500	0.0176
80	2.9674	0.0174
81	2.9848	0.0173
82	3.0020	0.0172
83	3.0191	0.0171
84	3.0361	0.0170
85	3.0529	0.0169
86	3.0697	0.0168
87	3.0864	0.0167
88	3.1030	0.0166
89	3.1194	0.0165
90	3.1358	0.0164
91	3.1521	0.0163
92	3.1683	0.0162
93	3.1844	0.0161
94	3.2004	0.0160
95	3.2163	0.0159
96	3.2321	0.0158
97	3.2478	0.0157
98	3.2635	0.0156
99	3.2790	0.0156
100	3.2945	0.0155
101	3.3099	0.0154
102	3.3252	0.0153
103	3.3405	0.0152
104	3.3556	0.0152
105	3.3707	0.0151
106	3.3857	0.0150
107	3.4006	0.0149
108	3.4155	0.0149
109	3.4303	0.0148
110	3.4450	0.0147
111	3.4596	0.0146
112	3.4742	0.0146
113	3.4887	0.0145
114	3.5031	0.0144
115	3.5175	0.0144
116	3.5318	0.0143
117	3.5460	0.0142
118	3.5602	0.0142
119	3.5743	0.0141
120	3.5883	0.0140
121	3.6023	0.0140
122	3.6162	0.0139
123	3.6301	0.0139
124	3.6439	0.0138
125	3.6576	0.0137
126	3.6713	0.0137
127	3.6849	0.0136
128	3.6985	0.0136
129	3.7120	0.0135
130	3.7255	0.0135
131	3.7389	0.0134
132	3.7522	0.0133
133	3.7655	0.0133
134	3.7788	0.0132
135	3.7919	0.0132
136	3.8051	0.0131
137	3.8182	0.0131
138	3.8312	0.0130
139	3.8442	0.0130
140	3.8571	0.0129

141	3.8700	0.0129
142	3.8828	0.0128
143	3.8956	0.0128
144	3.9084	0.0127
145	3.9211	0.0127
146	3.9337	0.0126
147	3.9463	0.0126
148	3.9589	0.0126
149	3.9714	0.0125
150	3.9838	0.0125
151	3.9963	0.0124
152	4.0086	0.0124
153	4.0210	0.0123
154	4.0333	0.0123
155	4.0455	0.0123
156	4.0577	0.0122
157	4.0699	0.0122
158	4.0820	0.0121
159	4.0941	0.0121
160	4.1062	0.0120
161	4.1182	0.0120
162	4.1301	0.0120
163	4.1421	0.0119
164	4.1539	0.0119
165	4.1658	0.0118
166	4.1776	0.0118
167	4.1894	0.0118
168	4.2011	0.0117
169	4.2128	0.0117
170	4.2245	0.0117
171	4.2361	0.0116
172	4.2477	0.0116
173	4.2592	0.0116
174	4.2708	0.0115
175	4.2823	0.0115
176	4.2937	0.0114
177	4.3051	0.0114
178	4.3165	0.0114
179	4.3278	0.0113
180	4.3392	0.0113
181	4.3504	0.0113
182	4.3617	0.0112
183	4.3729	0.0112
184	4.3841	0.0112
185	4.3952	0.0111
186	4.4063	0.0111
187	4.4174	0.0111
188	4.4285	0.0111
189	4.4395	0.0110
190	4.4505	0.0110
191	4.4614	0.0110
192	4.4724	0.0109
193	4.4833	0.0109
194	4.4941	0.0109
195	4.5050	0.0108
196	4.5158	0.0108
197	4.5266	0.0108
198	4.5373	0.0108
199	4.5481	0.0107
200	4.5587	0.0107
201	4.5694	0.0107
202	4.5801	0.0106
203	4.5907	0.0106
204	4.6012	0.0106
205	4.6118	0.0106
206	4.6223	0.0105
207	4.6328	0.0105
208	4.6433	0.0105
209	4.6537	0.0104
210	4.6642	0.0104
211	4.6746	0.0104

212	4.6849	0.0104
213	4.6953	0.0103
214	4.7056	0.0103
215	4.7159	0.0103
216	4.7261	0.0103
217	4.7364	0.0102
218	4.7466	0.0102
219	4.7568	0.0102
220	4.7670	0.0102
221	4.7771	0.0101
222	4.7872	0.0101
223	4.7973	0.0101
224	4.8074	0.0101
225	4.8174	0.0100
226	4.8274	0.0100
227	4.8374	0.0100
228	4.8474	0.0100
229	4.8574	0.0100
230	4.8673	0.0099
231	4.8772	0.0099
232	4.8871	0.0099
233	4.8969	0.0099
234	4.9068	0.0098
235	4.9166	0.0098
236	4.9264	0.0098
237	4.9361	0.0098
238	4.9459	0.0097
239	4.9556	0.0097
240	4.9653	0.0097
241	4.9750	0.0097
242	4.9847	0.0097
243	4.9943	0.0096
244	5.0039	0.0096
245	5.0135	0.0096
246	5.0231	0.0096
247	5.0327	0.0096
248	5.0422	0.0095
249	5.0517	0.0095
250	5.0612	0.0095
251	5.0707	0.0095
252	5.0801	0.0095
253	5.0896	0.0094
254	5.0990	0.0094
255	5.1084	0.0094
256	5.1178	0.0094
257	5.1271	0.0094
258	5.1365	0.0093
259	5.1458	0.0093
260	5.1551	0.0093
261	5.1644	0.0093
262	5.1736	0.0093
263	5.1829	0.0092
264	5.1921	0.0092
265	5.2013	0.0092
266	5.2105	0.0092
267	5.2197	0.0092
268	5.2288	0.0092
269	5.2379	0.0091
270	5.2471	0.0091
271	5.2562	0.0091
272	5.2652	0.0091
273	5.2743	0.0091
274	5.2833	0.0090
275	5.2924	0.0090
276	5.3014	0.0090
277	5.3104	0.0090
278	5.3193	0.0090
279	5.3283	0.0090
280	5.3372	0.0089
281	5.3462	0.0089
282	5.3551	0.0089

283	5.3640	0.0089
284	5.3728	0.0089
285	5.3817	0.0089
286	5.3905	0.0088
287	5.3994	0.0088
288	5.4082	0.0088

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0088	0.0039	0.0049
2	0.0088	0.0039	0.0049
3	0.0089	0.0039	0.0050
4	0.0089	0.0039	0.0050
5	0.0089	0.0039	0.0050
6	0.0089	0.0039	0.0050
7	0.0090	0.0039	0.0050
8	0.0090	0.0039	0.0050
9	0.0090	0.0040	0.0051
10	0.0090	0.0040	0.0051
11	0.0091	0.0040	0.0051
12	0.0091	0.0040	0.0051
13	0.0091	0.0040	0.0051
14	0.0091	0.0040	0.0051
15	0.0092	0.0040	0.0051
16	0.0092	0.0040	0.0052
17	0.0092	0.0041	0.0052
18	0.0092	0.0041	0.0052
19	0.0093	0.0041	0.0052
20	0.0093	0.0041	0.0052
21	0.0093	0.0041	0.0052
22	0.0094	0.0041	0.0052
23	0.0094	0.0041	0.0053
24	0.0094	0.0041	0.0053
25	0.0095	0.0042	0.0053
26	0.0095	0.0042	0.0053
27	0.0095	0.0042	0.0053
28	0.0095	0.0042	0.0053
29	0.0096	0.0042	0.0054
30	0.0096	0.0042	0.0054
31	0.0096	0.0042	0.0054
32	0.0097	0.0042	0.0054
33	0.0097	0.0043	0.0054
34	0.0097	0.0043	0.0055
35	0.0098	0.0043	0.0055
36	0.0098	0.0043	0.0055
37	0.0098	0.0043	0.0055
38	0.0099	0.0043	0.0055
39	0.0099	0.0044	0.0056
40	0.0099	0.0044	0.0056
41	0.0100	0.0044	0.0056
42	0.0100	0.0044	0.0056
43	0.0100	0.0044	0.0056
44	0.0101	0.0044	0.0056
45	0.0101	0.0044	0.0057
46	0.0101	0.0045	0.0057
47	0.0102	0.0045	0.0057
48	0.0102	0.0045	0.0057
49	0.0103	0.0045	0.0058
50	0.0103	0.0045	0.0058
51	0.0103	0.0045	0.0058
52	0.0104	0.0046	0.0058
53	0.0104	0.0046	0.0058
54	0.0104	0.0046	0.0059
55	0.0105	0.0046	0.0059
56	0.0105	0.0046	0.0059
57	0.0106	0.0046	0.0059
58	0.0106	0.0047	0.0060
59	0.0107	0.0047	0.0060
60	0.0107	0.0047	0.0060

61	0.0108	0.0047	0.0060
62	0.0108	0.0047	0.0060
63	0.0108	0.0048	0.0061
64	0.0109	0.0048	0.0061
65	0.0109	0.0048	0.0061
66	0.0110	0.0048	0.0061
67	0.0110	0.0048	0.0062
68	0.0111	0.0049	0.0062
69	0.0111	0.0049	0.0062
70	0.0111	0.0049	0.0063
71	0.0112	0.0049	0.0063
72	0.0112	0.0049	0.0063
73	0.0113	0.0050	0.0063
74	0.0113	0.0050	0.0064
75	0.0114	0.0050	0.0064
76	0.0114	0.0050	0.0064
77	0.0115	0.0051	0.0065
78	0.0116	0.0051	0.0065
79	0.0116	0.0051	0.0065
80	0.0117	0.0051	0.0065
81	0.0117	0.0052	0.0066
82	0.0118	0.0052	0.0066
83	0.0118	0.0052	0.0066
84	0.0119	0.0052	0.0067
85	0.0120	0.0053	0.0067
86	0.0120	0.0053	0.0067
87	0.0121	0.0053	0.0068
88	0.0121	0.0053	0.0068
89	0.0122	0.0054	0.0068
90	0.0123	0.0054	0.0069
91	0.0123	0.0054	0.0069
92	0.0124	0.0054	0.0069
93	0.0125	0.0055	0.0070
94	0.0125	0.0055	0.0070
95	0.0126	0.0055	0.0071
96	0.0126	0.0056	0.0071
97	0.0127	0.0056	0.0071
98	0.0128	0.0056	0.0072
99	0.0129	0.0057	0.0072
100	0.0129	0.0057	0.0073
101	0.0130	0.0057	0.0073
102	0.0131	0.0057	0.0073
103	0.0132	0.0058	0.0074
104	0.0132	0.0058	0.0074
105	0.0133	0.0059	0.0075
106	0.0134	0.0059	0.0075
107	0.0135	0.0059	0.0076
108	0.0136	0.0060	0.0076
109	0.0137	0.0060	0.0077
110	0.0137	0.0060	0.0077
111	0.0139	0.0061	0.0078
112	0.0139	0.0061	0.0078
113	0.0140	0.0062	0.0079
114	0.0141	0.0062	0.0079
115	0.0142	0.0063	0.0080
116	0.0143	0.0063	0.0080
117	0.0144	0.0063	0.0081
118	0.0145	0.0064	0.0081
119	0.0146	0.0064	0.0082
120	0.0147	0.0065	0.0082
121	0.0149	0.0065	0.0083
122	0.0149	0.0066	0.0084
123	0.0151	0.0066	0.0085
124	0.0152	0.0067	0.0085
125	0.0153	0.0067	0.0086
126	0.0154	0.0068	0.0086
127	0.0156	0.0068	0.0087
128	0.0156	0.0069	0.0088
129	0.0158	0.0069	0.0089
130	0.0159	0.0070	0.0089
131	0.0161	0.0071	0.0090

132	0.0162	0.0071	0.0091
133	0.0164	0.0072	0.0092
134	0.0165	0.0072	0.0092
135	0.0167	0.0073	0.0094
136	0.0168	0.0074	0.0094
137	0.0170	0.0075	0.0095
138	0.0171	0.0075	0.0096
139	0.0173	0.0076	0.0097
140	0.0174	0.0077	0.0098
141	0.0177	0.0078	0.0099
142	0.0178	0.0078	0.0100
143	0.0181	0.0079	0.0101
144	0.0182	0.0080	0.0102
145	0.0166	0.0073	0.0093
146	0.0168	0.0074	0.0094
147	0.0170	0.0075	0.0096
148	0.0172	0.0076	0.0096
149	0.0175	0.0077	0.0098
150	0.0177	0.0078	0.0099
151	0.0180	0.0079	0.0101
152	0.0181	0.0080	0.0102
153	0.0185	0.0081	0.0104
154	0.0187	0.0082	0.0105
155	0.0191	0.0084	0.0107
156	0.0193	0.0085	0.0108
157	0.0197	0.0086	0.0110
158	0.0199	0.0087	0.0111
159	0.0203	0.0089	0.0114
160	0.0206	0.0090	0.0115
161	0.0211	0.0093	0.0118
162	0.0213	0.0094	0.0120
163	0.0219	0.0096	0.0123
164	0.0222	0.0097	0.0124
165	0.0228	0.0100	0.0128
166	0.0231	0.0101	0.0130
167	0.0238	0.0104	0.0133
168	0.0241	0.0106	0.0135
169	0.0285	0.0125	0.0160
170	0.0289	0.0127	0.0162
171	0.0298	0.0131	0.0167
172	0.0303	0.0133	0.0170
173	0.0314	0.0138	0.0176
174	0.0319	0.0140	0.0179
175	0.0332	0.0146	0.0186
176	0.0338	0.0149	0.0190
177	0.0353	0.0155	0.0198
178	0.0361	0.0158	0.0202
179	0.0379	0.0166	0.0212
180	0.0389	0.0171	0.0218
181	0.0411	0.0180	0.0230
182	0.0424	0.0186	0.0238
183	0.0453	0.0199	0.0254
184	0.0470	0.0206	0.0263
185	0.0424	0.0186	0.0238
186	0.0448	0.0197	0.0251
187	0.0508	0.0223	0.0285
188	0.0548	0.0241	0.0307
189	0.0661	0.0290	0.0371
190	0.0746	0.0327	0.0418
191	0.1066	0.0341	0.0725
192	0.1466	0.0341	0.1125
193	0.4587	0.0341	0.4247
194	0.0868	0.0341	0.0528
195	0.0597	0.0262	0.0335
196	0.0476	0.0209	0.0267
197	0.0489	0.0215	0.0274
198	0.0437	0.0192	0.0245
199	0.0399	0.0175	0.0224
200	0.0369	0.0162	0.0207
201	0.0345	0.0152	0.0194
202	0.0325	0.0143	0.0182

203	0.0308	0.0135	0.0173
204	0.0294	0.0129	0.0165
205	0.0245	0.0108	0.0138
206	0.0234	0.0103	0.0131
207	0.0225	0.0099	0.0126
208	0.0216	0.0095	0.0121
209	0.0208	0.0091	0.0117
210	0.0201	0.0088	0.0113
211	0.0195	0.0085	0.0109
212	0.0189	0.0083	0.0106
213	0.0183	0.0080	0.0103
214	0.0178	0.0078	0.0100
215	0.0173	0.0076	0.0097
216	0.0169	0.0074	0.0095
217	0.0183	0.0080	0.0103
218	0.0179	0.0079	0.0101
219	0.0176	0.0077	0.0098
220	0.0172	0.0076	0.0097
221	0.0169	0.0074	0.0095
222	0.0166	0.0073	0.0093
223	0.0163	0.0071	0.0091
224	0.0160	0.0070	0.0090
225	0.0157	0.0069	0.0088
226	0.0155	0.0068	0.0087
227	0.0152	0.0067	0.0085
228	0.0150	0.0066	0.0084
229	0.0148	0.0065	0.0083
230	0.0146	0.0064	0.0082
231	0.0144	0.0063	0.0081
232	0.0142	0.0062	0.0079
233	0.0140	0.0061	0.0078
234	0.0138	0.0061	0.0077
235	0.0136	0.0060	0.0076
236	0.0135	0.0059	0.0075
237	0.0133	0.0058	0.0075
238	0.0131	0.0058	0.0074
239	0.0130	0.0057	0.0073
240	0.0128	0.0056	0.0072
241	0.0127	0.0056	0.0071
242	0.0126	0.0055	0.0070
243	0.0124	0.0055	0.0070
244	0.0123	0.0054	0.0069
245	0.0122	0.0053	0.0068
246	0.0120	0.0053	0.0068
247	0.0119	0.0052	0.0067
248	0.0118	0.0052	0.0066
249	0.0117	0.0051	0.0066
250	0.0116	0.0051	0.0065
251	0.0115	0.0050	0.0064
252	0.0114	0.0050	0.0064
253	0.0113	0.0050	0.0063
254	0.0112	0.0049	0.0063
255	0.0111	0.0049	0.0062
256	0.0110	0.0048	0.0062
257	0.0109	0.0048	0.0061
258	0.0108	0.0047	0.0061
259	0.0107	0.0047	0.0060
260	0.0106	0.0047	0.0060
261	0.0106	0.0046	0.0059
262	0.0105	0.0046	0.0059
263	0.0104	0.0046	0.0058
264	0.0103	0.0045	0.0058
265	0.0102	0.0045	0.0057
266	0.0102	0.0045	0.0057
267	0.0101	0.0044	0.0057
268	0.0100	0.0044	0.0056
269	0.0100	0.0044	0.0056
270	0.0099	0.0043	0.0055
271	0.0098	0.0043	0.0055
272	0.0097	0.0043	0.0055
273	0.0097	0.0043	0.0054

274	0.0096	0.0042	0.0054
275	0.0096	0.0042	0.0054
276	0.0095	0.0042	0.0053
277	0.0094	0.0041	0.0053
278	0.0094	0.0041	0.0053
279	0.0093	0.0041	0.0052
280	0.0093	0.0041	0.0052
281	0.0092	0.0040	0.0052
282	0.0092	0.0040	0.0051
283	0.0091	0.0040	0.0051
284	0.0090	0.0040	0.0051
285	0.0090	0.0039	0.0050
286	0.0089	0.0039	0.0050
287	0.0089	0.0039	0.0050
288	0.0088	0.0039	0.0050

Total soil rain loss = 2.16(In)
Total effective rainfall = 3.25(In)
Peak flow rate in flood hydrograph = 1615.24(CFS)

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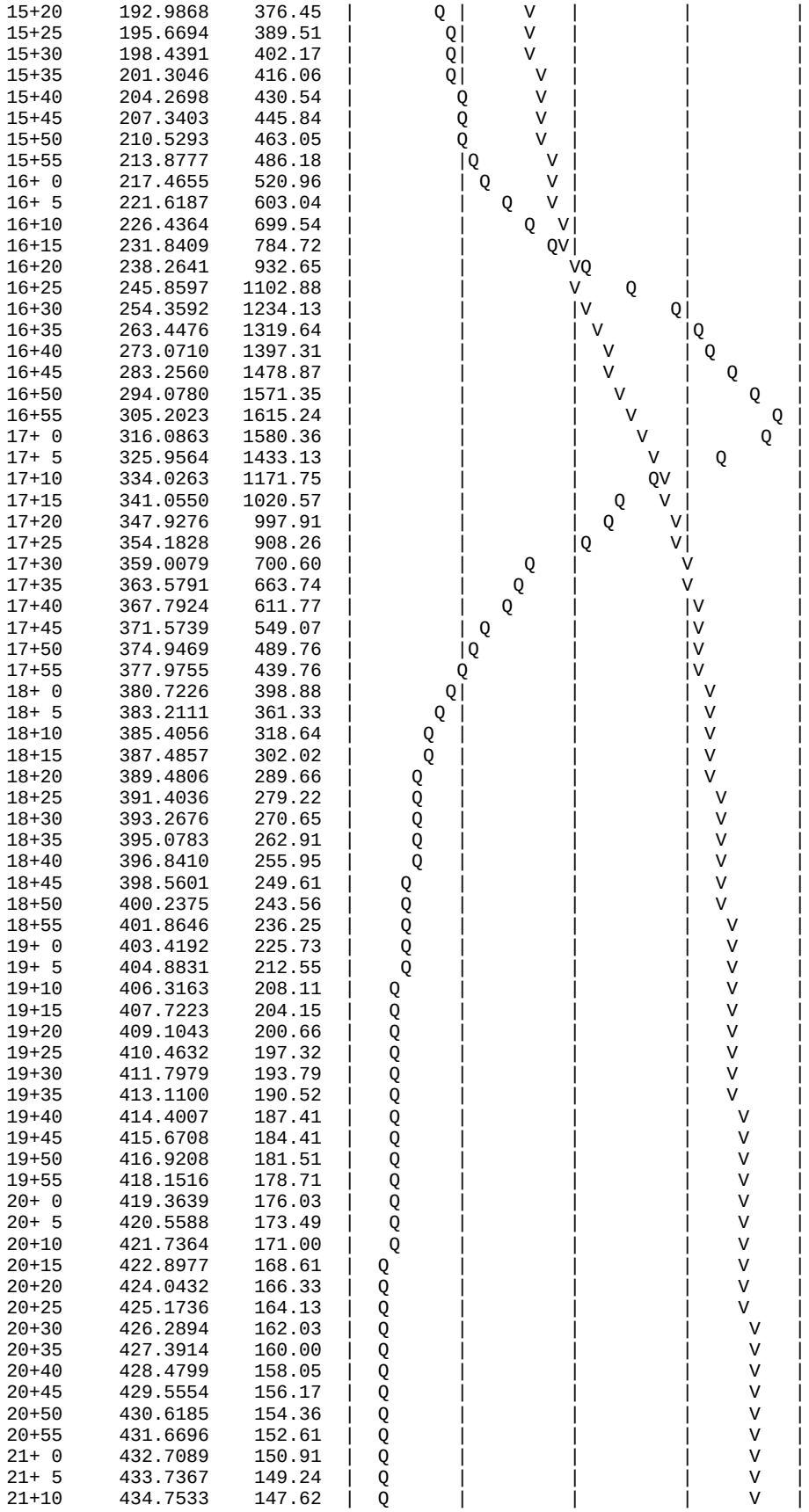
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	425.0	850.0	1275.0	1700.0
0+ 5	0.0039	0.57	Q				
0+10	0.0167	1.86	Q				
0+15	0.0410	3.53	Q				
0+20	0.0849	6.38	Q				
0+25	0.1594	10.81	Q				
0+30	0.2724	16.40	Q				
0+35	0.4283	22.64	Q				
0+40	0.6314	29.48	Q				
0+45	0.8865	37.05	Q				
0+50	1.2011	45.68	VQ				
0+55	1.5803	55.05	VQ				
1+ 0	2.0253	64.62	VQ				
1+ 5	2.5297	73.24	VQ				
1+10	3.0751	79.18	VQ				
1+15	3.6513	83.67	VQ				
1+20	4.2615	88.60	V Q				
1+25	4.9031	93.16	V Q				
1+30	5.5607	95.48	V Q				
1+35	6.2348	97.88	V Q				
1+40	6.9241	100.08	V Q				
1+45	7.6259	101.90	V Q				
1+50	8.3378	103.37	V Q				
1+55	9.0580	104.57	V Q				
2+ 0	9.7851	105.58	V Q				
2+ 5	10.5182	106.44	V Q				
2+10	11.2548	106.96	V Q				
2+15	11.9950	107.47	|VQ				
2+20	12.7387	107.98	|VQ				
2+25	13.4859	108.50	|VQ				
2+30	14.2367	109.01	|VQ				
2+35	14.9910	109.53	|VQ				
2+40	15.7490	110.06	|VQ				
2+45	16.5106	110.58	|VQ				
2+50	17.2758	111.11	|VQ				
2+55	18.0447	111.64	|VQ				
3+ 0	18.8168	112.11	|VQ				
3+ 5	19.5913	112.47	|VQ				
3+10	20.3684	112.83	|VQ				
3+15	21.1479	113.19	|VQ				
3+20	21.9300	113.56	|VQ				
3+25	22.7146	113.93	|VQ				

3+30	23.5019	114.30	VQ			
3+35	24.2917	114.68	Q			
3+40	25.0841	115.06	Q			
3+45	25.8792	115.45	Q			
3+50	26.6770	115.84	Q			
3+55	27.4775	116.23	Q			
4+ 0	28.2808	116.63	Q			
4+ 5	29.0868	117.03	Q			
4+10	29.8955	117.44	Q			
4+15	30.7072	117.85	Q			
4+20	31.5216	118.26	Q			
4+25	32.3389	118.68	Q			
4+30	33.1592	119.10	Q			
4+35	33.9823	119.52	Q			
4+40	34.8084	119.95	Q			
4+45	35.6376	120.39	QV			
4+50	36.4697	120.83	QV			
4+55	37.3049	121.27	QV			
5+ 0	38.1432	121.72	QV			
5+ 5	38.9847	122.18	QV			
5+10	39.8293	122.63	QV			
5+15	40.6771	123.10	QV			
5+20	41.5281	123.57	QV			
5+25	42.3824	124.04	QV			
5+30	43.2399	124.52	QV			
5+35	44.1009	125.01	QV			
5+40	44.9651	125.50	QV			
5+45	45.8329	125.99	QV			
5+50	46.7040	126.49	QV			
5+55	47.5787	127.00	Q V			
6+ 0	48.4569	127.51	QV			
6+ 5	49.3386	128.03	QV			
6+10	50.2240	128.56	QV			
6+15	51.1131	129.09	QV			
6+20	52.0058	129.63	QV			
6+25	52.9023	130.17	QV			
6+30	53.8026	130.72	QV			
6+35	54.7068	131.28	QV			
6+40	55.6148	131.85	QV			
6+45	56.5268	132.42	QV			
6+50	57.4428	133.00	QV			
6+55	58.3628	133.59	QV			
7+ 0	59.2869	134.18	Q V			
7+ 5	60.2151	134.78	Q V			
7+10	61.1476	135.39	Q V			
7+15	62.0843	136.01	Q V			
7+20	63.0253	136.63	Q V			
7+25	63.9707	137.27	Q V			
7+30	64.9205	137.91	Q V			
7+35	65.8748	138.57	Q V			
7+40	66.8336	139.22	Q V			
7+45	67.7971	139.90	Q V			
7+50	68.7652	140.57	Q V			
7+55	69.7381	141.26	Q V			
8+ 0	70.7158	141.96	Q V			
8+ 5	71.6984	142.67	Q V			
8+10	72.6860	143.39	Q V			
8+15	73.6785	144.12	Q V			
8+20	74.6762	144.86	Q V			
8+25	75.6790	145.61	Q V			
8+30	76.6871	146.37	Q V			
8+35	77.7006	147.15	Q V			
8+40	78.7194	147.94	Q V			
8+45	79.7438	148.74	Q V			
8+50	80.7737	149.55	Q V			
8+55	81.8093	150.37	Q V			
9+ 0	82.8507	151.21	Q V			
9+ 5	83.8980	152.06	Q V			
9+10	84.9512	152.93	Q V			
9+15	86.0105	153.81	Q V			
9+20	87.0759	154.70	Q V			

9+25	88.1476	155.61	Q V				
9+30	89.2257	156.54	Q V				
9+35	90.3102	157.48	Q V				
9+40	91.4014	158.44	Q V				
9+45	92.4993	159.41	Q V				
9+50	93.6040	160.40	Q V				
9+55	94.7157	161.42	Q V				
10+ 0	95.8344	162.44	Q V				
10+ 5	96.9604	163.50	Q V				
10+10	98.0938	164.56	Q V				
10+15	99.2346	165.65	Q V				
10+20	100.3831	166.76	Q V				
10+25	101.5394	167.90	Q V				
10+30	102.7037	169.05	Q V				
10+35	103.8760	170.23	Q V				
10+40	105.0566	171.43	Q V				
10+45	106.2457	172.66	Q V				
10+50	107.4434	173.91	Q V				
10+55	108.6500	175.19	Q V				
11+ 0	109.8655	176.49	Q V				
11+ 5	111.0902	177.83	Q V				
11+10	112.3243	179.19	Q V				
11+15	113.5680	180.59	Q V				
11+20	114.8216	182.02	Q V				
11+25	116.0852	183.48	Q V				
11+30	117.3592	184.97	Q V				
11+35	118.6437	186.51	Q V				
11+40	119.9389	188.07	Q V				
11+45	121.2453	189.69	Q V				
11+50	122.5630	191.33	Q V				
11+55	123.8924	193.02	Q V				
12+ 0	125.2337	194.76	Q V				
12+ 5	126.5865	196.42	Q V				
12+10	127.9500	197.98	Q V				
12+15	129.3241	199.52	Q V				
12+20	130.7074	200.86	Q V				
12+25	132.0981	201.94	Q V				
12+30	133.4950	202.82	Q V				
12+35	134.8975	203.65	Q V				
12+40	136.3052	204.40	Q V				
12+45	137.7176	205.08	Q V				
12+50	139.1336	205.61	Q V				
12+55	140.5528	206.06	Q V				
13+ 0	141.9753	206.55	Q V				
13+ 5	143.4032	207.33	Q V				
13+10	144.8407	208.74	Q V				
13+15	146.2908	210.55	Q V				
13+20	147.7534	212.37	Q V				
13+25	149.2299	214.38	Q V				
13+30	150.7240	216.95	Q V				
13+35	152.2368	219.65	Q V				
13+40	153.7691	222.50	Q V				
13+45	155.3227	225.58	Q V				
13+50	156.8989	228.87	Q V				
13+55	158.4993	232.39	Q V				
14+ 0	160.1254	236.10	Q V				
14+ 5	161.7802	240.28	Q V				
14+10	163.4676	245.01	Q V				
14+15	165.1902	250.13	Q V				
14+20	166.9530	255.95	Q V				
14+25	168.7621	262.69	Q V				
14+30	170.6228	270.17	Q V				
14+35	172.5391	278.24	Q V				
14+40	174.5149	286.89	Q V				
14+45	176.5550	296.23	Q V				
14+50	178.6652	306.40	Q V				
14+55	180.8509	317.37	Q V				
15+ 0	183.1164	328.94	Q V				
15+ 5	185.4633	340.77	Q V				
15+10	187.8887	352.17	Q V				
15+15	190.3942	363.79	Q V				



15+20	192.9868	376.45	
15+25	195.6694	389.51	
15+30	198.4391	402.17	
15+35	201.3046	416.06	
15+40	204.2698	430.54	
15+45	207.3403	445.84	
15+50	210.5293	463.05	
15+55	213.8777	486.18	
16+ 0	217.4655	520.96	
16+ 5	221.6187	603.04	
16+10	226.4364	699.54	
16+15	231.8409	784.72	
16+20	238.2641	932.65	
16+25	245.8597	1102.88	
16+30	254.3592	1234.13	
16+35	263.4476	1319.64	
16+40	273.0710	1397.31	
16+45	283.2560	1478.87	
16+50	294.0780	1571.35	
16+55	305.2023	1615.24	
17+ 0	316.0863	1580.36	
17+ 5	325.9564	1433.13	
17+10	334.0263	1171.75	
17+15	341.0550	1020.57	
17+20	347.9276	997.91	
17+25	354.1828	908.26	
17+30	359.0079	700.60	
17+35	363.5791	663.74	
17+40	367.7924	611.77	
17+45	371.5739	549.07	
17+50	374.9469	489.76	
17+55	377.9755	439.76	
18+ 0	380.7226	398.88	
18+ 5	383.2111	361.33	
18+10	385.4056	318.64	
18+15	387.4857	302.02	
18+20	389.4806	289.66	
18+25	391.4036	279.22	
18+30	393.2676	270.65	
18+35	395.0783	262.91	
18+40	396.8410	255.95	
18+45	398.5601	249.61	
18+50	400.2375	243.56	
18+55	401.8646	236.25	
19+ 0	403.4192	225.73	
19+ 5	404.8831	212.55	
19+10	406.3163	208.11	
19+15	407.7223	204.15	
19+20	409.1043	200.66	
19+25	410.4632	197.32	
19+30	411.7979	193.79	
19+35	413.1100	190.52	
19+40	414.4007	187.41	
19+45	415.6708	184.41	
19+50	416.9208	181.51	
19+55	418.1516	178.71	
20+ 0	419.3639	176.03	
20+ 5	420.5588	173.49	
20+10	421.7364	171.00	
20+15	422.8977	168.61	
20+20	424.0432	166.33	
20+25	425.1736	164.13	
20+30	426.2894	162.03	
20+35	427.3914	160.00	
20+40	428.4799	158.05	
20+45	429.5554	156.17	
20+50	430.6185	154.36	
20+55	431.6696	152.61	
21+ 0	432.7089	150.91	
21+ 5	433.7367	149.24	
21+10	434.7533	147.62	

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  21+15     435.7592    146.05  |  Q      |         |         |     V   |
  21+20     436.7546    144.53  |  Q      |         |         |     V   |
  21+25     437.7399    143.06  |  Q      |         |         |      V  |
  21+30     438.7153    141.63  |  Q      |         |         |      V  |
  21+35     439.6811    140.24  |  Q      |         |         |      V  |
  21+40     440.6377    138.89  |  Q      |         |         |      V  |
  21+45     441.5852    137.58  |  Q      |         |         |      V  |
  21+50     442.5239    136.30  |  Q      |         |         |      V  |
  21+55     443.4540    135.06  |  Q      |         |         |      V  |
  22+ 0     444.3758    133.85  |  Q      |         |         |      V  |
  22+ 5     445.2895    132.67  |  Q      |         |         |      V  |
  22+10     446.1952    131.52  |  Q      |         |         |      V  |
  22+15     447.0933    130.39  |  Q      |         |         |      V  |
  22+20     447.9838    129.30  |  Q      |         |         |      V  |
  22+25     448.8669    128.23  |  Q      |         |         |      V  |
  22+30     449.7429    127.19  | Q       |         |         |       V |
  22+35     450.6118    126.17  | Q       |         |         |       V |
  22+40     451.4739    125.18  | Q       |         |         |       V |
  22+45     452.3293    124.20  | Q       |         |         |       V |
  22+50     453.1782    123.25  | Q       |         |         |       V |
  22+55     454.0206    122.32  | Q       |         |         |       V |
  23+ 0     454.8568    121.41  | Q       |         |         |       V |
  23+ 5     455.6869    120.52  | Q       |         |         |       V |
  23+10     456.5109    119.65  | Q       |         |         |       V |
  23+15     457.3291    118.80  | Q       |         |         |       V |
  23+20     458.1415    117.96  | Q       |         |         |       V |
  23+25     458.9483    117.14  | Q       |         |         |       V |
  23+30     459.7495    116.34  | Q       |         |         |       V |
  23+35     460.5453    115.55  | Q       |         |         |       V |
  23+40     461.3358    114.78  | Q       |         |         |        V|
  23+45     462.1211    114.02  | Q       |         |         |        V|
  23+50     462.9012    113.28  | Q       |         |         |        V|
  23+55     463.6764    112.55  | Q       |         |         |        V|
  24+ 0     464.4466    111.83  | Q       |         |         |        V|
  24+ 5     465.2080    110.56  | Q       |         |         |        V|
  24+10     465.9559    108.59  | Q       |         |         |        V|
  24+15     466.6878    106.26  | Q       |         |         |        V|
  24+20     467.3956    102.77  | Q       |         |         |        V|
  24+25     468.0688     97.75  | Q       |         |         |        V|
  24+30     468.6997     91.61  | Q       |         |         |        V|
  24+35     469.2843     84.88  |Q        |         |         |        V|
  24+40     469.8188     77.61  |Q        |         |         |        V|
  24+45     470.2987     69.68  |Q        |         |         |        V|
  24+50     470.7172     60.76  |Q        |         |         |        V|
  24+55     471.0697     51.18  |Q        |         |         |        V|
  25+ 0     471.3553     41.48  Q         |         |         |        V|
  25+ 5     471.5814     32.82  Q         |         |         |        V|
  25+10     471.7666     26.90  Q         |         |         |        V|
  25+15     471.9214     22.48  Q         |         |         |        V|
  25+20     472.0432     17.68  Q         |         |         |        V|
  25+25     472.1345     13.27  Q         |         |         |        V|
  25+30     472.2113     11.14  Q         |         |         |        V|
  25+35     472.2730      8.95  Q         |         |         |        V|
  25+40     472.3211      6.99  Q         |         |         |        V|
  25+45     472.3585      5.43  Q         |         |         |        V|
  25+50     472.3876      4.23  Q         |         |         |        V|
  25+55     472.4104      3.31  Q         |         |         |        V|
  26+ 0     472.4282      2.59  Q         |         |         |        V|
  26+ 5     472.4422      2.03  Q         |         |         |        V|
  26+10     472.4547      1.81  Q         |         |         |        V|
  26+15     472.4659      1.62  Q         |         |         |        V|
  26+20     472.4757      1.43  Q         |         |         |        V|
  26+25     472.4842      1.23  Q         |         |         |        V|
  26+30     472.4914      1.04  Q         |         |         |        V|
  26+35     472.4973      0.85  Q         |         |         |        V|
  26+40     472.5018      0.66  Q         |         |         |        V|
  26+45     472.5051      0.48  Q         |         |         |        V|
  26+50     472.5071      0.29  Q         |         |         |        V|
  26+55     472.5079      0.12  Q         |         |         |         V
-------------------------------------------------------------------------
```

APPENDIX C: PRELIMINARY CHANNEL SIZING CONCRETE LINING

APPENDIX C.1: REACH 1 – WARM CREEK CHANNEL TO TIPPECANOE

Worksheet for Reach 1 - Warm Creek Chnl to Tippecanoe_Conc

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00730	ft/ft
Discharge	1637.00	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	9.00
0+13.50	0.00
0+36.50	0.00
0+50.00	9.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 9.00)	(0+13.50, 0.00)	0.014
(0+13.50, 0.00)	(0+36.50, 0.00)	0.030
(0+36.50, 0.00)	(0+50.00, 9.00)	0.014

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	4.61	ft
Elevation Range	0.00 to 9.00 ft	
Flow Area	138.00	ft²
Wetted Perimeter	39.63	ft
Hydraulic Radius	3.48	ft
Top Width	36.84	ft
Normal Depth	4.61	ft

Worksheet for Reach 1 - Warm Creek Chnl to Tippecanoe_Conc

Results

Critical Depth		4.83	ft
Critical Slope		0.00619	ft/ft
Velocity		11.86	ft/s
Velocity Head		2.19	ft
Specific Energy		6.80	ft
Froude Number		1.08	
Flow Type	Supercritical		

GVF Input Data

Downstream Depth		0.00	ft
Length		0.00	ft
Number Of Steps		0	

GVF Output Data

Upstream Depth		0.00	ft
Profile Description			
Profile Headloss		0.00	ft
Downstream Velocity		Infinity	ft/s
Upstream Velocity		Infinity	ft/s
Normal Depth		4.61	ft
Critical Depth		4.83	ft
Channel Slope		0.00730	ft/ft
Critical Slope		0.00619	ft/ft

APPENDIX C.2: REACH 2 –TIPPECANOE TO STERLING

Worksheet for Reach 2 - Tippecanoe to Sterling _Conc

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00730	ft/ft
Discharge	1637.00	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	9.00
0+13.50	0.00
0+31.50	0.00
0+45.00	9.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 9.00)	(0+13.50, 0.00)	0.014
(0+13.50, 0.00)	(0+31.50, 0.00)	0.030
(0+31.50, 0.00)	(0+45.00, 9.00)	0.014

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	5.05	ft
Elevation Range	0.00 to 9.00 ft	
Flow Area	129.09	ft²
Wetted Perimeter	36.20	ft
Hydraulic Radius	3.57	ft
Top Width	33.14	ft
Normal Depth	5.05	ft

Worksheet for Reach 2 - Tippecanoe to Sterling _Conc

Results

Critical Depth		5.43	ft
Critical Slope		0.00560	ft/ft
Velocity		12.68	ft/s
Velocity Head		2.50	ft
Specific Energy		7.55	ft
Froude Number		1.13	
Flow Type	Supercritical		

GVF Input Data

Downstream Depth		0.00	ft
Length		0.00	ft
Number Of Steps		0	

GVF Output Data

Upstream Depth		0.00	ft
Profile Description			
Profile Headloss		0.00	ft
Downstream Velocity		Infinity	ft/s
Upstream Velocity		Infinity	ft/s
Normal Depth		5.05	ft
Critical Depth		5.43	ft
Channel Slope		0.00730	ft/ft
Critical Slope		0.00560	ft/ft

APPENDIX C.3: REACH 3 –STERLING TO VICTORIA

Worksheet for Reach 3 - Sterling to Victoria _Conc

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00750	ft/ft
Discharge	1363.00	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	8.00
0+12.00	0.00
0+48.00	0.00
0+60.00	8.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 8.00)	(0+12.00, 0.00)	0.014
(0+12.00, 0.00)	(0+48.00, 0.00)	0.030
(0+48.00, 0.00)	(0+60.00, 8.00)	0.014

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	3.40	ft
Elevation Range	0.00 to 8.00 ft	
Flow Area	139.90	ft²
Wetted Perimeter	48.27	ft
Hydraulic Radius	2.90	ft
Top Width	46.21	ft
Normal Depth	3.40	ft

Worksheet for Reach 3 - Sterling to Victoria _Conc

Results

Critical Depth		3.38	ft
Critical Slope		0.00771	ft/ft
Velocity		9.74	ft/s
Velocity Head		1.47	ft
Specific Energy		4.88	ft
Froude Number		0.99	
Flow Type	Subcritical		

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.40	ft
Critical Depth	3.38	ft
Channel Slope	0.00750	ft/ft
Critical Slope	0.00771	ft/ft

APPENDIX D: PRELIMINARY CHANNEL SIZING RIP-RAP LINING

APPENDIX D.1: REACH 1 – WARM CREEK CHANNEL TO TIPPECANOE

Worksheet for Reach 1 - Warm Creek Chnl to Tippecanoe_Rip_Rap

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00730	ft/ft
Discharge	1637.00	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	9.00
0+13.50	0.00
0+36.50	0.00
0+50.00	9.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 9.00)	(0+13.50, 0.00)	0.035
(0+13.50, 0.00)	(0+36.50, 0.00)	0.030
(0+36.50, 0.00)	(0+50.00, 9.00)	0.035

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	5.38	ft
Elevation Range	0.00 to 9.00 ft	
Flow Area	167.27	ft²
Wetted Perimeter	42.41	ft
Hydraulic Radius	3.94	ft
Top Width	39.15	ft
Normal Depth	5.38	ft

Worksheet for Reach 1 - Warm Creek Chnl to Tippecanoe_Rip_Rap

Results

Critical Depth		4.83	ft
Critical Slope		0.01073	ft/ft
Velocity		9.79	ft/s
Velocity Head		1.49	ft
Specific Energy		6.87	ft
Froude Number		0.83	
Flow Type	Subcritical		

GVF Input Data

Downstream Depth		0.00	ft
Length		0.00	ft
Number Of Steps		0	

GVF Output Data

Upstream Depth		0.00	ft
Profile Description			
Profile Headloss		0.00	ft
Downstream Velocity		Infinity	ft/s
Upstream Velocity		Infinity	ft/s
Normal Depth		5.38	ft
Critical Depth		4.83	ft
Channel Slope		0.00730	ft/ft
Critical Slope		0.01073	ft/ft

APPENDIX D.2: REACH 2 –TIPPECANOE TO STERLING

Worksheet for Reach 2 - Tippecanoe to Sterling _Rip_Rap

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00730	ft/ft
Discharge	1637.00	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	9.00
0+13.50	0.00
0+31.50	0.00
0+45.00	9.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 9.00)	(0+13.50, 0.00)	0.035
(0+13.50, 0.00)	(0+31.50, 0.00)	0.030
(0+31.50, 0.00)	(0+45.00, 9.00)	0.035

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	6.07	ft
Elevation Range	0.00 to 9.00 ft	
Flow Area	164.60	ft²
Wetted Perimeter	39.89	ft
Hydraulic Radius	4.13	ft
Top Width	36.22	ft
Normal Depth	6.07	ft

Worksheet for Reach 2 - Tippecanoe to Sterling _Rip_Rap

Results

Critical Depth		5.43	ft
Critical Slope		0.01106	ft/ft
Velocity		9.95	ft/s
Velocity Head		1.54	ft
Specific Energy		7.61	ft
Froude Number		0.82	
Flow Type	Subcritical		

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	6.07	ft
Critical Depth	5.43	ft
Channel Slope	0.00730	ft/ft
Critical Slope	0.01106	ft/ft

APPENDIX D.3: REACH 3 –STERLING TO VICTORIA

Worksheet for Reach 3 - Sterling to Victoria _Rip_Rap

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00750	ft/ft
Discharge	1363.00	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	8.00
0+12.00	0.00
0+48.00	0.00
0+60.00	8.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 8.00)	(0+12.00, 0.00)	0.035
(0+12.00, 0.00)	(0+48.00, 0.00)	0.030
(0+48.00, 0.00)	(0+60.00, 8.00)	0.035

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	3.73	ft
Elevation Range	0.00 to 8.00 ft	
Flow Area	155.30	ft²
Wetted Perimeter	49.46	ft
Hydraulic Radius	3.14	ft
Top Width	47.20	ft
Normal Depth	3.73	ft

Worksheet for Reach 3 - Sterling to Victoria _Rip_Rap

Results

Critical Depth		3.38	ft
Critical Slope		0.01058	ft/ft
Velocity		8.78	ft/s
Velocity Head		1.20	ft
Specific Energy		4.93	ft
Froude Number		0.85	
Flow Type	Subcritical		

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.73	ft
Critical Depth	3.38	ft
Channel Slope	0.00750	ft/ft
Critical Slope	0.01058	ft/ft

EXCERPTS

EXCERPT A: SAN BERNARDINO COUNTY MASTER DRAINAGE PLAN

COMPREHENSIVE STORM DRAIN PLAN NO. 6

FACILITY MAP -- AREA A -- SHEET 1 OF 2

EXISTING FACILITY – ADEQUATE
EXISTING FACILITY – DEFICIENT
PROPOSED FACILITY — FACILITY NAME
WATERSHED BOUNDARY — Q100 / TOTAL AREA
DRAINAGE DIVIDE — BASIN

Exponent

Failure Analysis Associates

SCALE 1" = 1600'

6-DR-00
6-DR-08
6-DR-07
6-DR-09
6-LS-03
6-LS-00
6-LS-04
6-LS-05
6-LS-02
6-LS-01
6-DR-03
6-DR-04
6-DR-05
6-DR-06
6-DR-02
6-WA-09
6-WA-11
6-WA-14
6-WA-17
6-WA-10
6-WA-16
6-WA-15
6-WA-12
6-WA-18
6-DR-01
6-WA-00
6-WA-07
6-WA-13
6-WA-08
6-WA-05
6-WA-06
6-WA-04
6-WA-03
6-CI-03
6-CI-04
6-CI-02
6-CI-01
6-CI-00
6-CI-05
6-WA-02
6-WA-01
6-CI-00

SAN BERNARDINO
DEL ROSA
NORTON

COMPREHENSIVE STORM DRAIN PLAN NO. 6

FACILITY MAP -- AREA A -- SHEET 2 OF 2

- EXISTING FACILITY – ADEQUATE
- EXISTING FACILITY – DEFICIENT
- PROPOSED FACILITY
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE
- 6-00-00 FACILITY NAME
- Q100 / TOTAL AREA BASIN

Exponent

Failure Analysis Associates

SCALE
1" = 1600'

MATCHLINE

SAN MANUEL INDIAN RESERVATION

HIGHLAND

PATTON STATE HOSPITAL

GRANT

ORTON

McKinley Mtn

Harlem Springs

Sump

Creek

6-SD-00
6-SD-01
6-SD-02
6-SD-04
6-SD-05
6-SD-06
6-SD-07
6-SD-08
6-SD-09
6-SM-00
6-LS-01
6-LS-02
6-LS-05
6-DR-02
6-DR-05
6-CI-04
6-CI-05
6-CI-06
6-CI-07
6-CI-08
6-CI-09
6-CI-10
6-CI-11
6-CI-12
6-CI-13
6-CI-14
6-CI-15
6-WA-00
6-WA-16
6-WA-19
6-WA-20
6-WA-21
6-WA-22

EXCERPT B: NOAA ATLAS 14 RAINFALL VALUES

NOAA Atlas 14, Volume 6, Version 2
Location name: San Bernardino, California, USA*
Latitude: 34.1065°, Longitude: -117.2424°
Elevation: 1103.59 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.103 (0.085-0.125)	0.136 (0.113-0.166)	0.181 (0.150-0.220)	0.218 (0.179-0.268)	0.268 (0.213-0.342)	0.308 (0.240-0.401)	0.350 (0.265-0.466)	0.393 (0.290-0.539)	0.454 (0.320-0.649)	0.502 (0.342-0.744)
10-min	0.147 (0.122-0.179)	0.195 (0.162-0.237)	0.259 (0.215-0.316)	0.312 (0.256-0.383)	0.385 (0.306-0.490)	0.442 (0.344-0.575)	0.501 (0.380-0.668)	0.564 (0.415-0.773)	0.650 (0.459-0.931)	0.719 (0.490-1.07)
15-min	0.178 (0.148-0.216)	0.236 (0.196-0.287)	0.313 (0.260-0.382)	0.377 (0.310-0.464)	0.465 (0.370-0.592)	0.535 (0.415-0.695)	0.606 (0.459-0.808)	0.682 (0.502-0.935)	0.786 (0.555-1.13)	0.870 (0.593-1.29)
30-min	0.268 (0.223-0.326)	0.356 (0.296-0.433)	0.473 (0.392-0.576)	0.569 (0.467-0.700)	0.702 (0.557-0.893)	0.807 (0.627-1.05)	0.915 (0.693-1.22)	1.03 (0.757-1.41)	1.19 (0.837-1.70)	1.31 (0.894-1.95)
60-min	0.396 (0.330-0.481)	0.526 (0.437-0.639)	0.698 (0.578-0.851)	0.840 (0.690-1.03)	1.04 (0.823-1.32)	1.19 (0.925-1.55)	1.35 (1.02-1.80)	1.52 (1.12-2.08)	1.75 (1.24-2.51)	1.94 (1.32-2.87)
2-hr	0.567 (0.471-0.688)	0.734 (0.610-0.892)	0.955 (0.791-1.16)	1.14 (0.933-1.40)	1.38 (1.10-1.76)	1.58 (1.22-2.05)	1.77 (1.34-2.36)	1.98 (1.46-2.71)	2.26 (1.59-3.23)	2.47 (1.69-3.67)
3-hr	0.693 (0.577-0.842)	0.890 (0.739-1.08)	1.15 (0.951-1.40)	1.36 (1.12-1.67)	1.65 (1.31-2.10)	1.87 (1.45-2.43)	2.10 (1.59-2.80)	2.33 (1.72-3.20)	2.65 (1.87-3.80)	2.90 (1.98-4.30)
6-hr	0.963 (0.801-1.17)	1.23 (1.02-1.49)	1.58 (1.31-1.92)	1.86 (1.53-2.29)	2.24 (1.78-2.85)	2.54 (1.97-3.30)	2.84 (2.15-3.79)	3.15 (2.32-4.32)	3.57 (2.52-5.11)	3.89 (2.65-5.77)
12-hr	1.27 (1.06-1.54)	1.63 (1.36-1.99)	2.11 (1.75-2.57)	2.49 (2.05-3.07)	3.02 (2.39-3.84)	3.42 (2.65-4.44)	3.82 (2.90-5.09)	4.24 (3.12-5.81)	4.80 (3.39-6.87)	5.23 (3.56-7.76)
24-hr	1.72 (1.53-1.98)	2.25 (1.99-2.59)	2.93 (2.59-3.39)	3.49 (3.06-4.07)	4.25 (3.60-5.12)	4.83 (4.01-5.94)	5.42 (4.39-6.82)	6.02 (4.75-7.80)	6.84 (5.18-9.23)	7.48 (5.47-10.4)
2-day	2.12 (1.88-2.44)	2.80 (2.48-3.23)	3.71 (3.27-4.29)	4.45 (3.89-5.18)	5.46 (4.62-6.57)	6.24 (5.18-7.67)	7.04 (5.70-8.87)	7.87 (6.20-10.2)	9.00 (6.81-12.1)	9.88 (7.23-13.8)
3-day	2.30 (2.04-2.65)	3.08 (2.72-3.55)	4.11 (3.62-4.75)	4.96 (4.34-5.78)	6.13 (5.19-7.38)	7.04 (5.85-8.66)	7.98 (6.47-10.1)	8.96 (7.07-11.6)	10.3 (7.80-13.9)	11.4 (8.32-15.9)
4-day	2.47 (2.18-2.84)	3.32 (2.94-3.83)	4.47 (3.94-5.17)	5.42 (4.74-6.32)	6.73 (5.70-8.11)	7.76 (6.44-9.55)	8.82 (7.15-11.1)	9.94 (7.83-12.9)	11.5 (8.68-15.5)	12.7 (9.28-17.7)
7-day	2.81 (2.49-3.24)	3.86 (3.41-4.45)	5.26 (4.64-6.09)	6.44 (5.63-7.50)	8.07 (6.83-9.72)	9.35 (7.76-11.5)	10.7 (8.65-13.5)	12.1 (9.53-15.6)	14.0 (10.6-18.9)	15.6 (11.4-21.7)
10-day	3.04 (2.69-3.50)	4.22 (3.73-4.87)	5.80 (5.12-6.71)	7.13 (6.24-8.31)	8.98 (7.61-10.8)	10.4 (8.67-12.8)	12.0 (9.70-15.1)	13.6 (10.7-17.6)	15.8 (12.0-21.3)	17.6 (12.9-24.5)
20-day	3.75 (3.32-4.32)	5.27 (4.66-6.08)	7.33 (6.46-8.48)	9.06 (7.93-10.6)	11.5 (9.74-13.8)	13.4 (11.1-16.5)	15.5 (12.5-19.5)	17.6 (13.9-22.8)	20.6 (15.6-27.8)	23.0 (16.8-32.1)
30-day	4.41 (3.91-5.09)	6.19 (5.48-7.14)	8.62 (7.60-9.97)	10.7 (9.33-12.4)	13.5 (11.5-16.3)	15.8 (13.2-19.5)	18.3 (14.8-23.0)	20.8 (16.4-27.0)	24.4 (18.5-33.0)	27.3 (20.0-38.1)
45-day	5.31 (4.70-6.12)	7.36 (6.51-8.49)	10.2 (8.97-11.8)	12.6 (11.0-14.6)	15.9 (13.5-19.2)	18.6 (15.5-22.9)	21.5 (17.4-27.0)	24.5 (19.3-31.7)	28.7 (21.8-38.8)	32.2 (23.5-44.9)
60-day	6.25 (5.54-7.21)	8.54 (7.56-9.86)	11.7 (10.3-13.5)	14.3 (12.6-16.7)	18.1 (15.4-21.8)	21.2 (17.6-26.0)	24.4 (19.7-30.7)	27.8 (21.9-36.0)	32.6 (24.7-44.0)	36.5 (26.7-50.9)

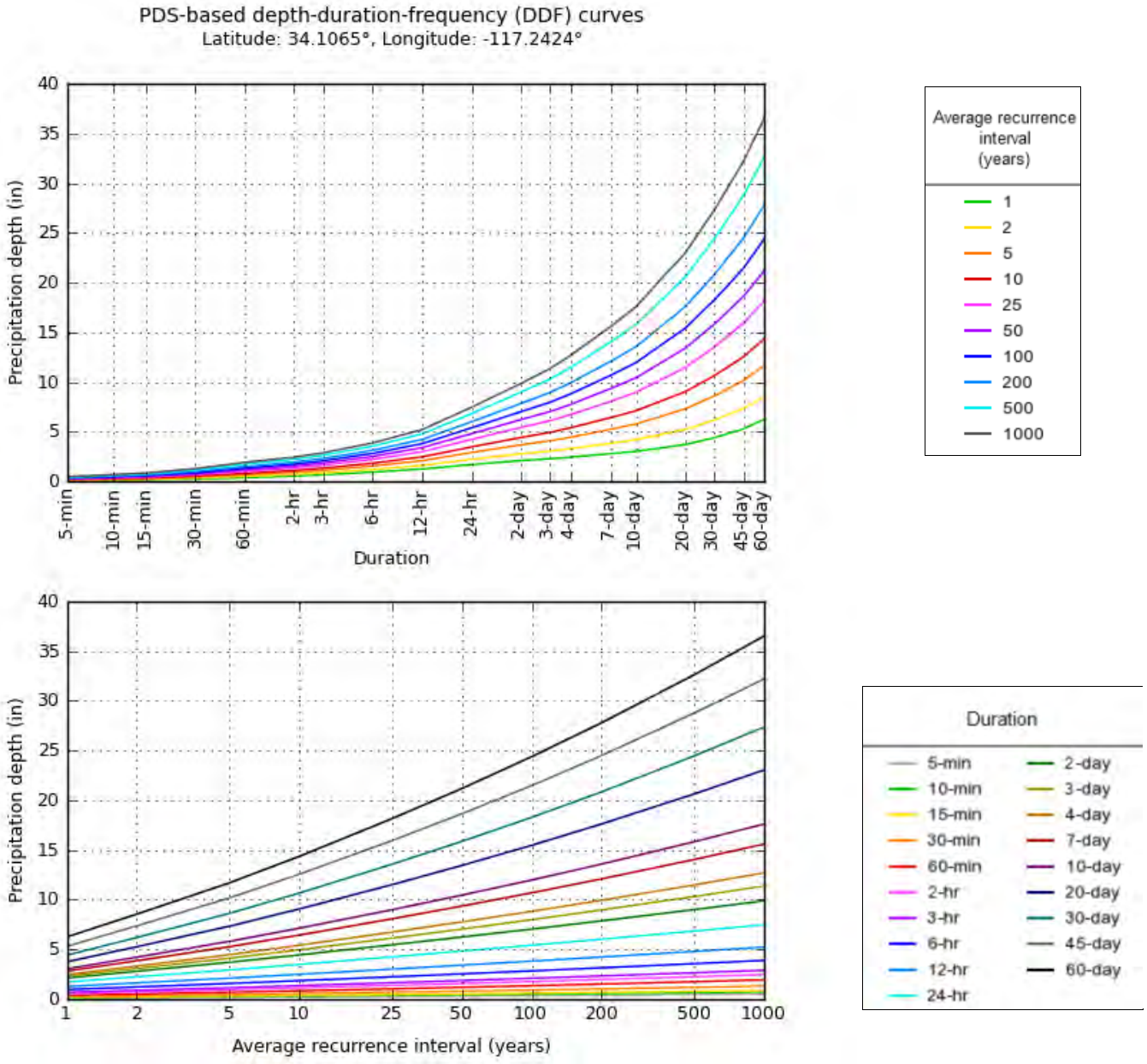
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Thu Apr 16 17:11:09 2020

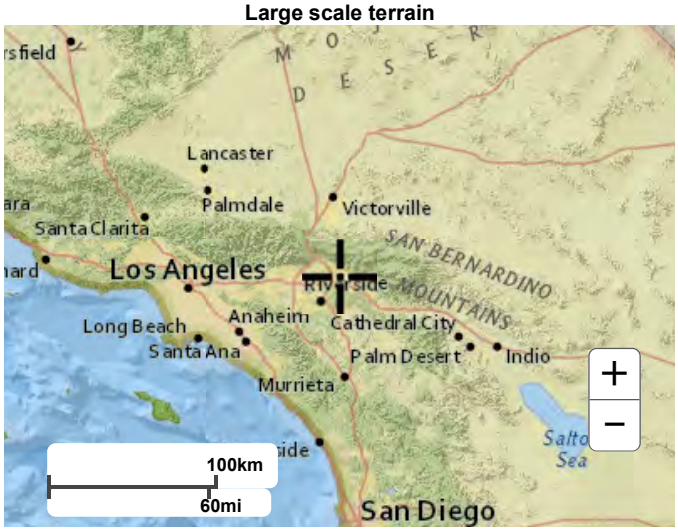
Back to Top

Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

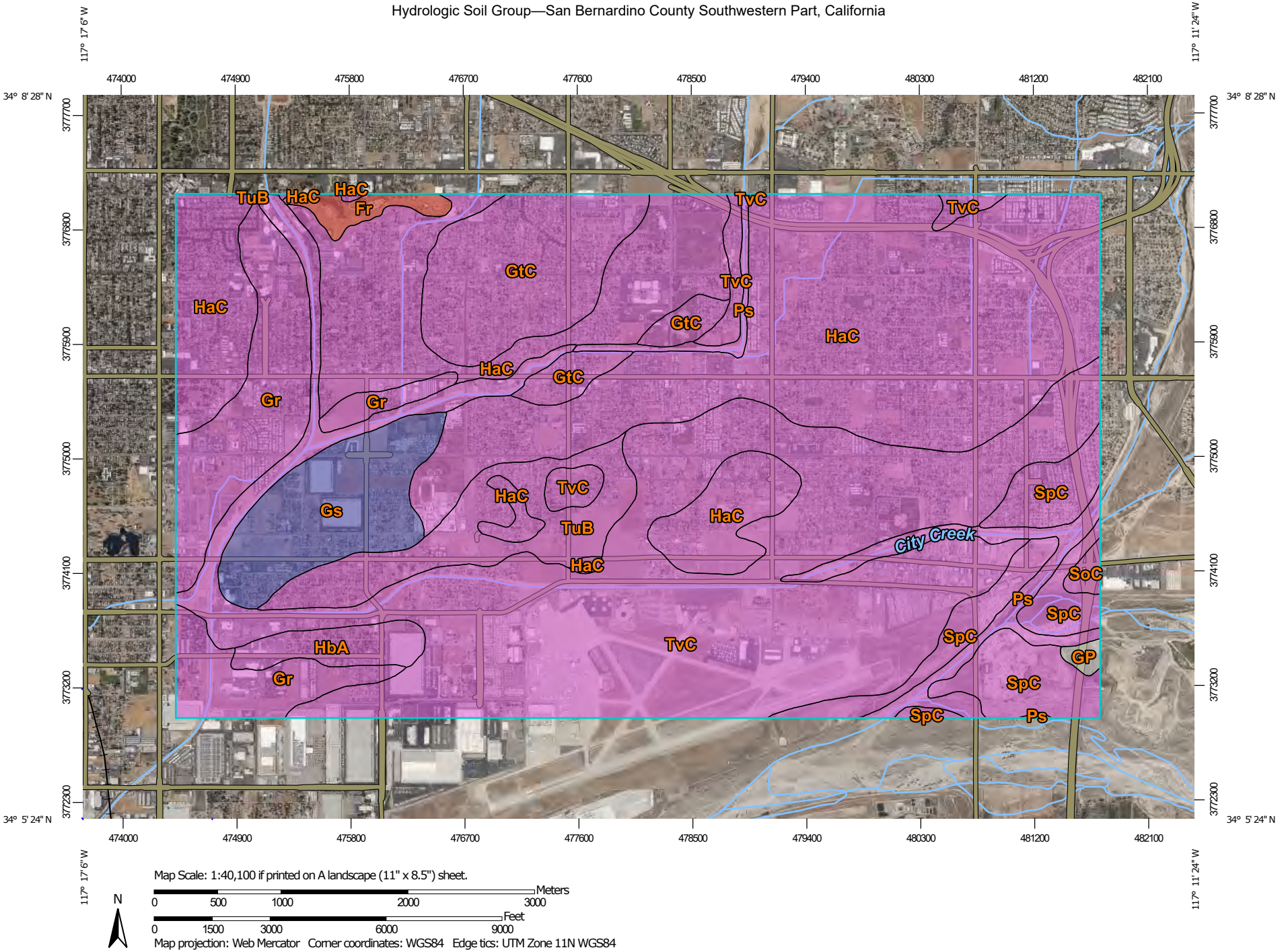


Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

EXCERPT C: NRCS SOILS MAP


117° 17' 6" W
117° 11' 24" W
34° 8' 28" N
34° 5' 24" N
474000
474900
475800
476700
477600
478500
479400
480300
481200
482100
3777700
3776800
3775900
3775000
3774100
3773200
3772300
TuB
HaC
Fr
GtC
TvC
Ps
Gr
Gs
HbA
SpC
SoC
GP
City Creek
Map Scale: 1:40,100 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 500 1000 2000 3000
Feet
0 1500 3000 6000 9000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 11, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 1, 2018—Jun 30, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Fr	Friant-Rock outcrop complex	D	54.5	0.7%
GP	Quarries and Pits soils		15.0	0.2%
Gr	Grangeville fine sandy loam, warm MAAT, MLRA 19	A	572.6	7.7%
Gs	Grangeville fine sandy loam, saline-alkali	B	350.8	4.7%
GtC	Greenfield sandy loam, 2 to 9 percent slopes	A	504.2	6.8%
HaC	Hanford coarse sandy loam, 2 to 9 percent slopes	A	2,594.0	34.8%
HbA	Hanford sandy loam, 0 to 2 percent slopes	A	102.5	1.4%
Ps	Psamments, Fluvents and Frequently flooded soils	A	190.3	2.6%
SoC	Soboba gravelly loamy sand, 0 to 9 percent slopes	A	19.7	0.3%
SpC	Soboba stony loamy sand, 2 to 9 percent slopes	A	424.1	5.7%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	A	308.3	4.1%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	A	2,326.4	31.2%
Totals for Area of Interest			**7,462.4**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

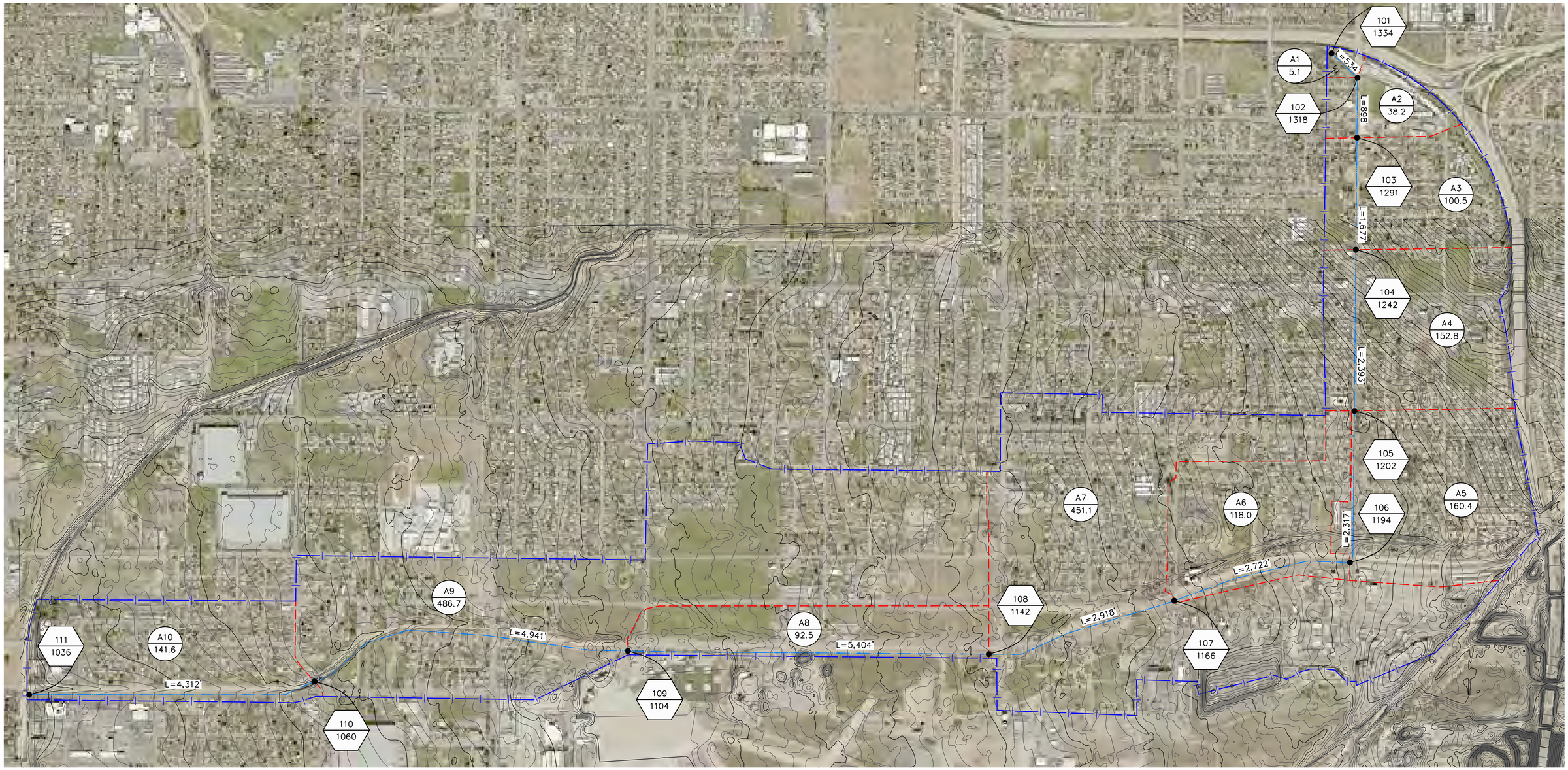
EXHIBITS

EXHIBIT A: ULTIMATE CONDITION OFFSITE RATIONAL METHOD HYDROLOGY MAP

IVDA 3RD AND 6TH STREET SPECIFIC PLAN

COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

TRIBUTARY WATERSHED BOUNDARY



LEGEND:

X.X / X.X	NODE/CONCENTRATION POINT FLOWLINE ELEVATION
XXXX.X	APPROXIMATE INVERT ELEVATION
XXX / X.X	SUB AREA ACRES
L=XXX'	FLOW DISTANCE
	FLOW PATH
	WATERSHED SUB-BOUNDARY
	WATERSHED BOUNDARY

N

GRAPHIC SCALE
700' 0 350' 700' 1,400'
1" = 700'

JLC Engineering & Consulting, Inc.
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MURRIETA, CA 92562
PH. 951.304.9552 FAX 951.304.3568

EXHIBIT "A"

3RD AND 6TH SP

TRIBUTARY WATERSHED BOUNDARY

Drawing Name: G:\754.01.17\Engineering\Hydrology_Plan\Exhibits\Exhibit A - Tributary Watershed Boundary.dwg
Last Opened: Apr 14, 2020 - 2:19pm by swilson

EXHIBIT B: LAND USE MAP

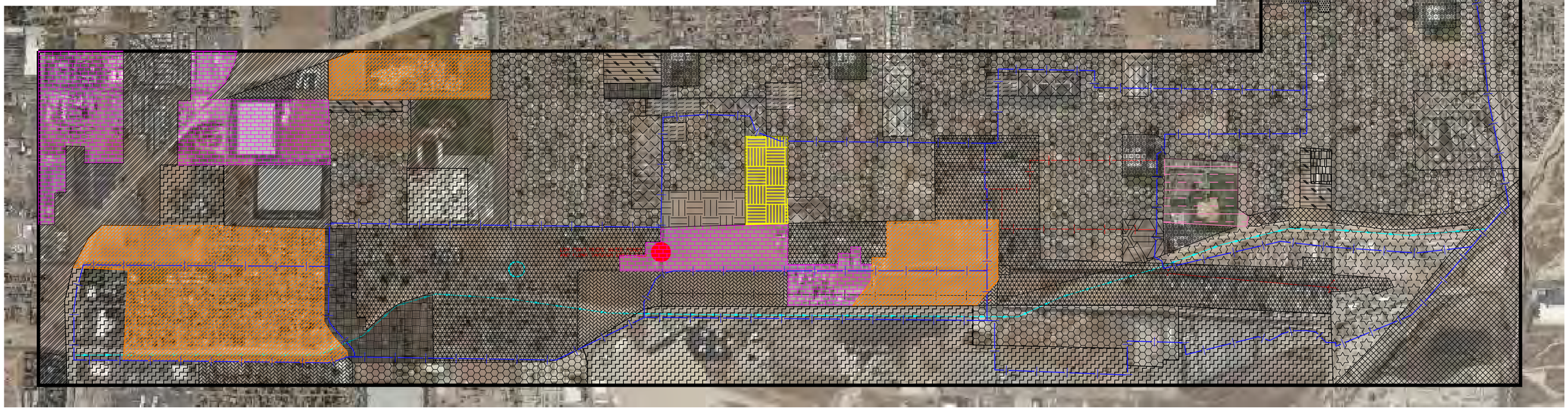
CITY CREEK BY-PASS CHANNEL

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

LAND USE MAP

LEGEND:

- SAN BERNARDINO – RS, RESIDENTIAL SUBURBAN
- SAN BERNARDINO – RM, RESIDENTIAL MEDIUM
- SAN BERNARDINO – RMH, RESIDENTIAL MEDIUM HIGH
- SAN BERNARDINO – CG–1, COMMERCIAL GENERAL
- SAN BERNARDINO – CH, COMMERCIAL HEAVY
- SAN BERNARDINO – OIP, OFFICE INDUSTRIAL PARK
- SAN BERNARDINO – IL, INDUSTRIAL LIGHT
- SAN BERNARDINO – PF, PUBLIC FACILITIES
- SAN BERNARDINO – SP–AC, SPECIFIC PLAN ALLIANCE CALIFRONIA
- HIGHLAND – LOW DENSITY RES.
- HIGHLAND – MEDIUM DENSITY RESIDENTIAL
- HIGHLAND – HIGH DENSITY RES. SPECIAL
- HIGHLAND – PLANNED DEVELOPMENT
- HIGHLAND – GENERAL COMMERCIAL
- HIGHLAND – NEIGHBORHOOD COMMERCIAL
- HIGHLAND – PLANNED COMMERCIAL
- HIGHLAND – MIXED USE
- HIGHLAND – OFFICE PROFESSIONAL
- HIGHLAND – BUSINESS PARK
- HIGHAND – INDUSTRIAL
- HIGHLAND – PUBLIC/INSTITUTIONAL
- HIGHLAND – PARKS
- HIGHLAND – OPEN SPACE
- HIGHLAND – HISTORIC VILLAGE DISTRICT



N

GRAPHIC SCALE

600' 0 300' 600' 1,200'

1" = 600'

JLC Engineering & Consulting, Inc.

36263 CALLE DE LOBO
MURRIETA, CA 92562
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EXHIBIT "B"

CITY CREEK BY-PASS CHANNEL

LAND USE MAP

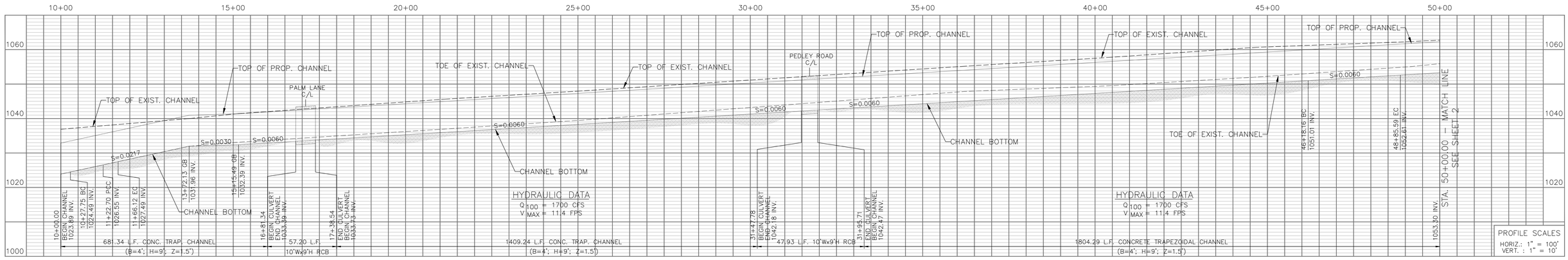
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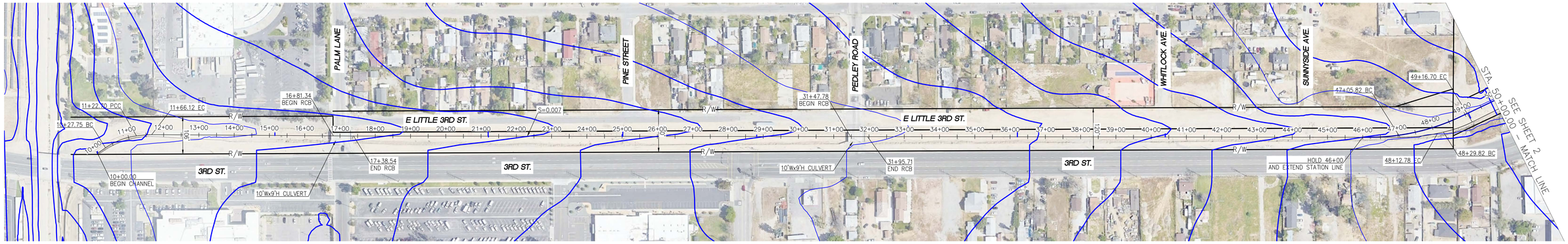
EXHIBIT C: CITY CREEK BY-PASS CHANNEL PRELIMINARY DESIGN

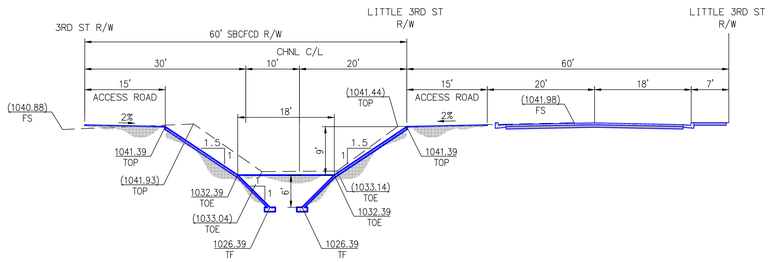
CITY CREEK

IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

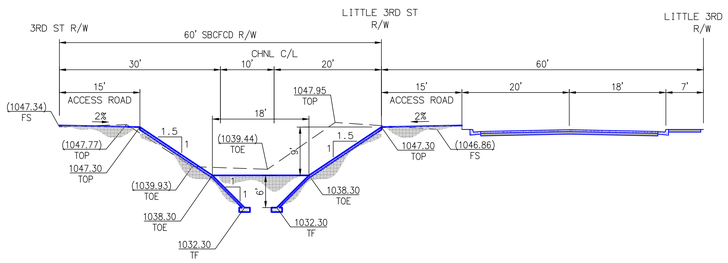
CHANNEL ALTERNATIVES



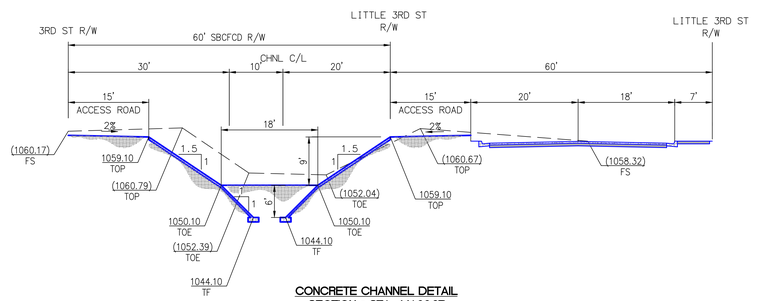




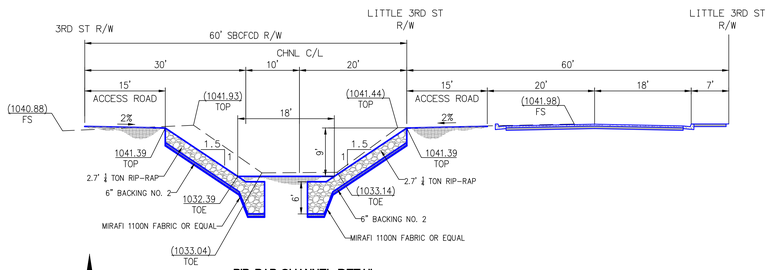
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SECTION • STA. 15+15.49
SCALE: 1"=10'



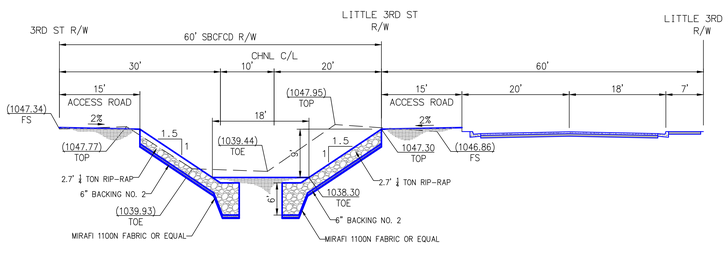
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SECTION • STA. 25+00.01
SCALE: 1"=10'



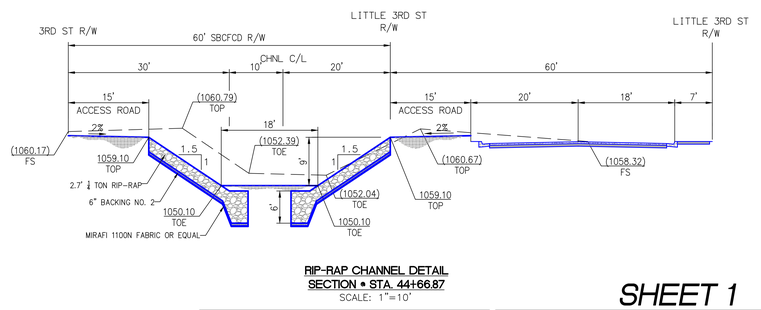
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SCALE: 1"=10'



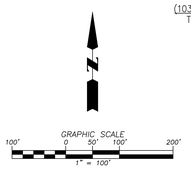
RIP-RAP CHANNEL DETAIL
SECTION • STA. 15+15.49
SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 25+00.01
SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 44+66.87
SCALE: 1"=10'



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SHEET 1

CITY CREEK

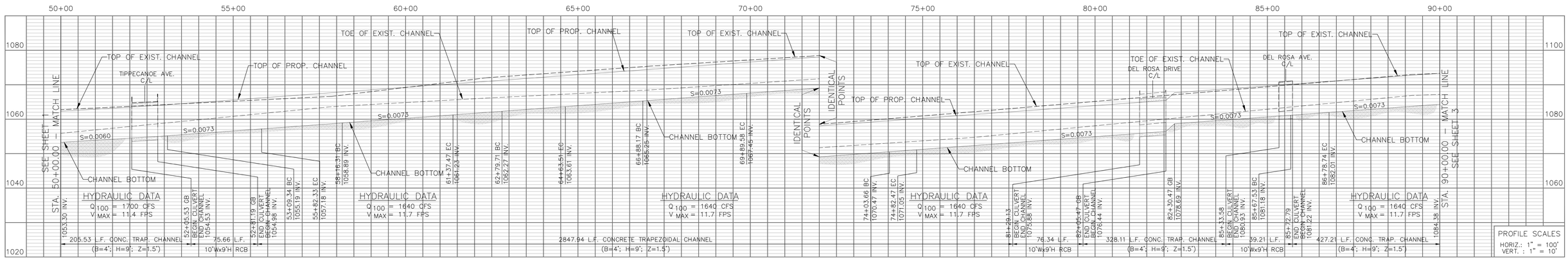
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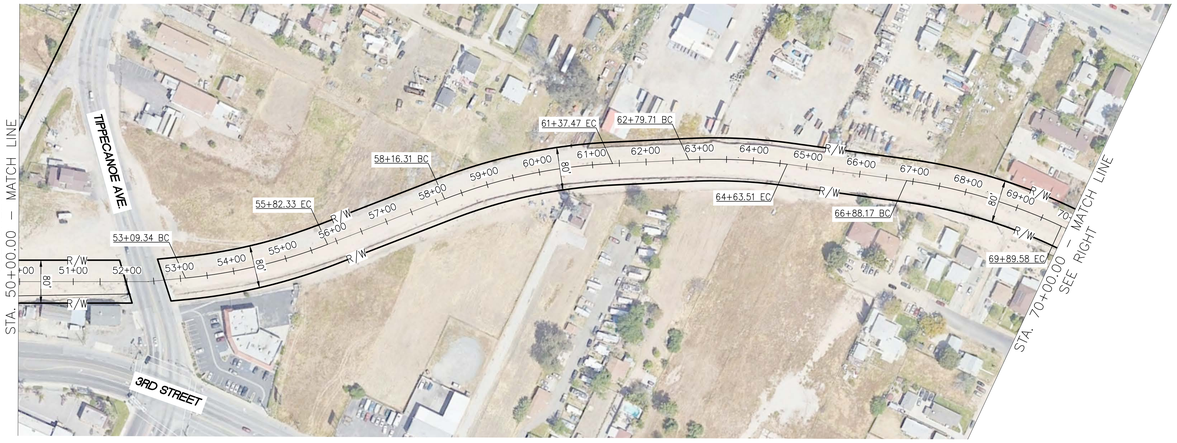
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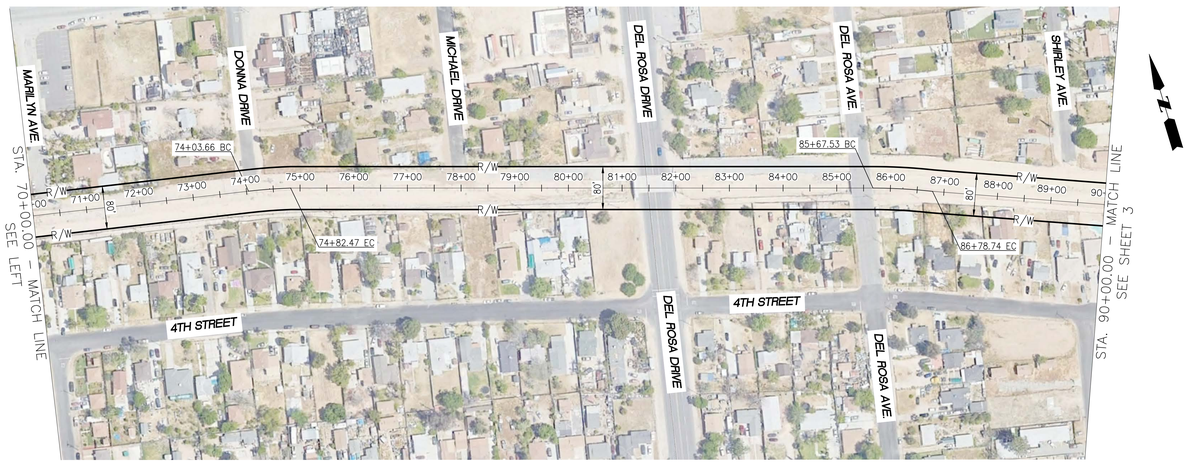
CITY CREEK

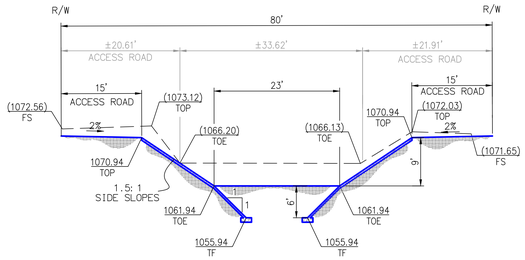
IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

CHANNEL ALTERNATIVES

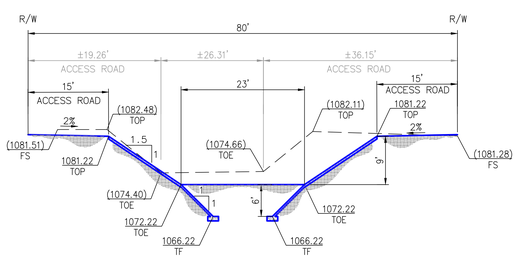




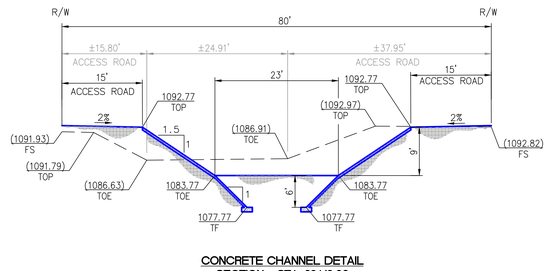




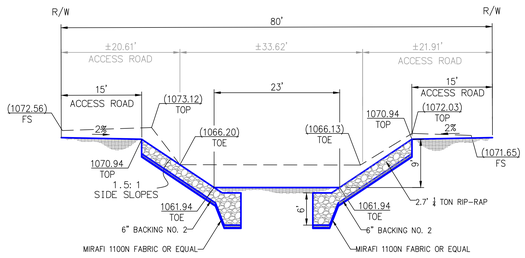
CONCRETE CHANNEL DETAIL
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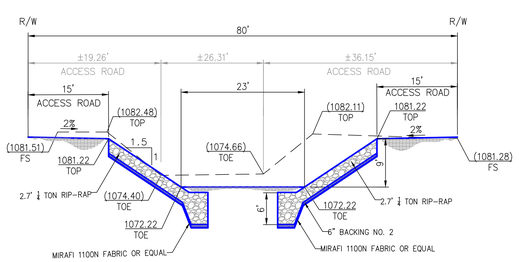
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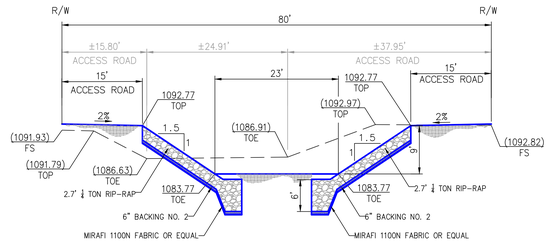
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RIP-RAP CHANNEL DETAIL
SECTION • STA. 62+34.45
SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 76+42.32
SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 89+19.60
SCALE: 1"=10'

GRAPHIC SCALE
100' 0 50' 100' 200'
1" = 100'

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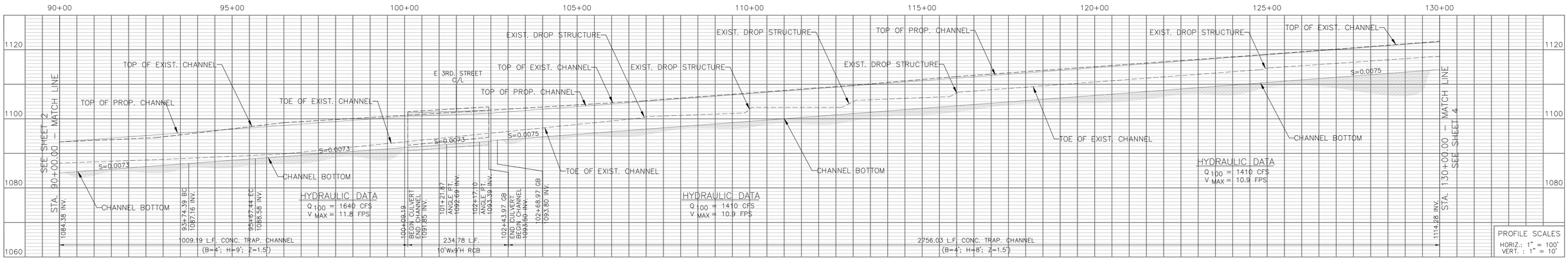
SHEET 2
CITY CREEK
CHANNEL ALTERNATIVES

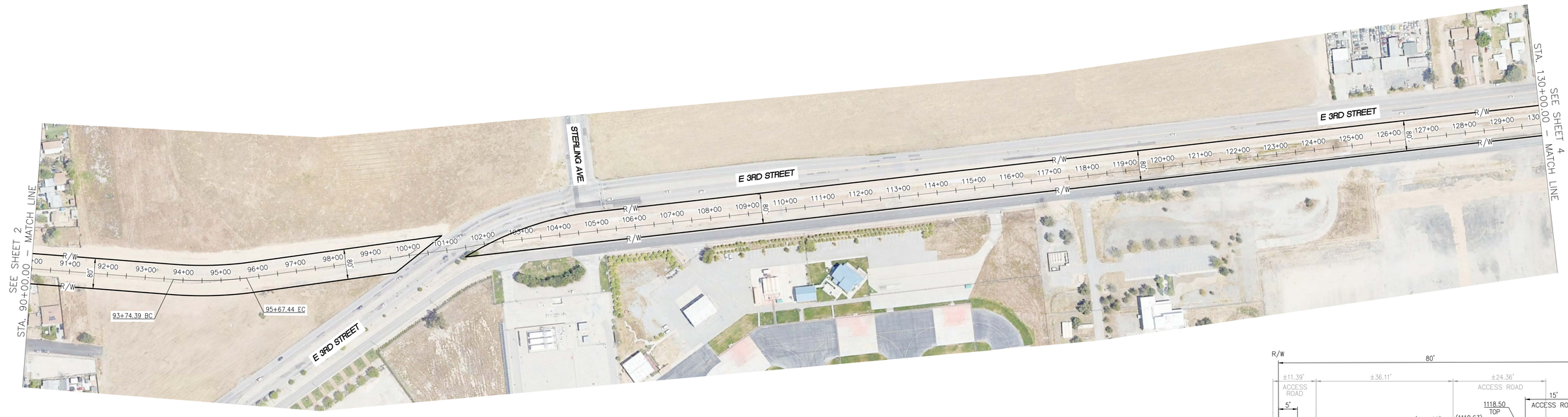
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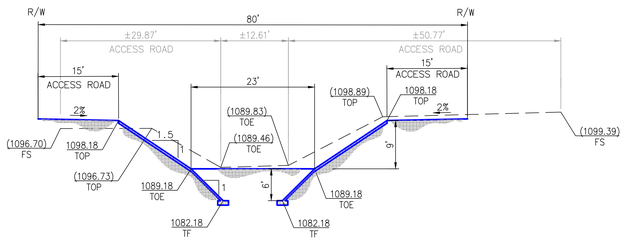
CITY CREEK

IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

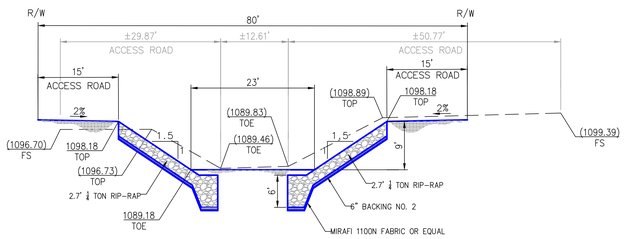
CHANNEL ALTERNATIVES



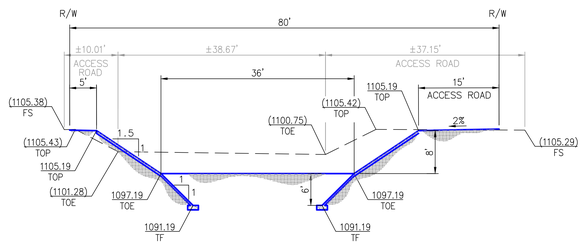




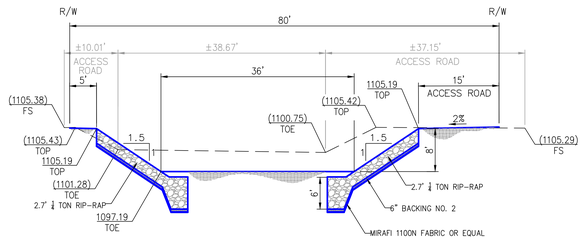
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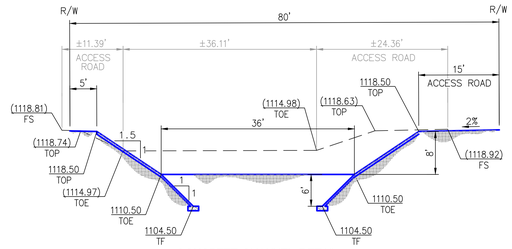
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SECTION • STA. 96+49.39
SCALE: 1"=10'



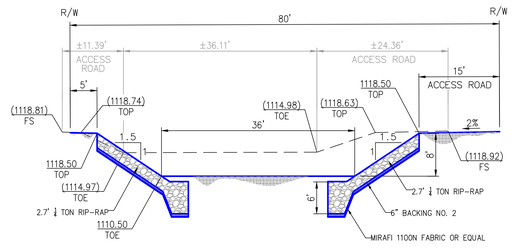
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SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 107+20.39
SCALE: 1"=10'



CONCRETE CHANNEL DETAIL
SECTION • STA. 124+95.01
SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 124+95.01
SCALE: 1"=10'

GRAPHIC SCALE
100' 0 50' 100' 200'
1" = 100'

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SHEET 3
CITY CREEK
CHANNEL ALTERNATIVES

Drawing Name: G:\254.01\7\Channel Alternatives sheet 03.dwg
Last Opened: Oct 22, 2019 – 5:10pm by MatT

APPENDIX 8b

EVWD 2022 Consumer Confidence Report

LEADERSHIP | PARTNERSHIP | STEWARDSHIP

the PIPELINE

2019 Consumer Confidence Report

Building Partnerships





Providing the Community with Information About the Quality of Your Drinking Water

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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PUBLISHED JUNE 2020

LEADERSHIP • PARTNERSHIP • STEWARDSHIP
EAST VALLEY WATER DISTRICT

issue

In This

Ensuring Safe And Quality Water 04

Conservation in the Garden 05

Where Does the Water Come From? 06

Water Quality Data Tables 08

Keeping Up With the Pipes and Reliability 12

Enhancing Services One Meter at a Time 13

Sterling Natural Resource Center 14



MANAGEMENT

John Mura
General Manager/CEO

Brian Tompkins
Chief Financial Officer

Jeff Noelte
Director of Engineering & Operations

Justine Hendricksen
District Clerk

Kerrie Bryan
Director of Human Resources /Risk & Safety

Kelly Malloy
Director of Strategic Services

Patrick Milroy
Operations Manager

Ryan Ritualo
Information Technology Manager



#waterneverquits #1440minutes365days

GOVERNING BOARD

David E. Smith
Chairman of the Board

Phillip R. Goodrich
Vice Chairman

Chris Carrillo
Governing Board Member

Ronald L. Coats
Governing Board Member

James Morales, Jr.
Governing Board Member

EAST VALLEY
WATER DISTRICT

Dear Neighbor,

East Valley Water District has committed to enhancing and preserving the quality of life for our community through innovative leadership and world class public service. We proudly serve over 103,000 people living in the cities of Highland and San Bernardino along with areas of unincorporated San Bernardino County.

We value strategic planning and embracing opportunities inside and outside of the organization for the benefit of the community we serve. This year we continued to invest in projects that will leave a lasting impression and protect the reliability of our water and wastewater services. Over the last year we replaced aging pipelines, refurbished a storage tank, installed smart meters, and continued construction on the Sterling Natural Resource Center.

In addition to construction projects, we began preparing for the future in a new way. Through a partnership with the San Bernardino City Unified School District and Indian Springs High School we launched a pathway for students to prepare for careers in the water industry. This program will introduce valuable skills that are key steps for the success of our local young adults.

EAST VALLEY WATER DISTRICT IS MORE THAN A UTILITY PROVIDER, WE ARE A FAMILY OF DEDICATED EMPLOYEES, NEIGHBORS, AND COMMUNITY PARTNERS.

In the following pages you will find important information about the safety of your drinking water. On behalf of the East Valley Water District family, I would like to thank you for the opportunity to serve this community. We invite and encourage you to be engaged with our projects and programs.



Yours in Service,

John Mura
General Manager/CEO



The District manages and operates more than 500 miles of pipelines.

300 MILES OF WATER MAINS **214** MILES OF SEWER MAINS



ENSURING SAFE AND QUALITY WATER

The Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have strict standards that water providers, like EVWD, must follow for treating and providing drinking water to our community. These requirements are in place to prevent bacteria, viruses, and other organisms from contaminating drinking water.

water quality

East Valley Water District's primary water quality goal is to protect the health and safety of residents. Specific and ongoing measures are in place to sample, monitor, and treat water year-round, including:

- Weekly, monthly, quarterly, annually and tri-annually sampling
- Samples are collected routinely at key locations throughout the distribution system
- Hydrant flushing is performed to remove sediment that can cause water to appear dirty or discolored
- The use of filtration and small levels of disinfectants, such as chlorine, to remove or kill bacteria

DID YOU KNOW

The scent of chlorine in tap water is quite common. This is because it's added to the water distribution system to ensure the water is free of harmful bacteria and other microorganisms.

3,400
SAMPLES COLLECTED

Tap water provided by the District is tested year-round to ensure the quality of water served to you.

More information online at eastvalley.org/waterquality

TIME TO BREATHE: A FEW QUESTIONS ABOUT YOUR TAP WATER EXPLAINED

Have you noticed cloudy or milky looking water from the tap and wondered why it looks that way? If so, not to worry, it's perfectly normal. Cloudiness is often caused by tiny air bubbles. This happens when water is delivered under varied pressures and mild temperature differences like the bubbles found at the bottom of a waterfall. If you let your glass set for about 1-2 minutes the bubbles will rise to the top and burst leaving the water to clear from the bottom up.

Did you know that before reaching the tap, water is treated with small levels of chlorine that comply with State and Federal guidelines. You may notice a slight smell of chlorine in your tap water. While it is safe to drink, to adjust the water's taste to preference, let the glass of water air out for a minute or two, or even opt for using a filter.

474
HYDRANTS FLUSHED

646
HYDRANTS REPAIRED OR REPLACED & PAINTED



AS A FRIENDLY REMINDER, YOUR TAP WATER IS SAFE TO DRINK AND USE.

System Enhancements

In addition to helping maintain water quality, system enhancements ensure service reliability during seasons of high demand.

In the garden,

In the summer months, watering your yard can account for 60% of your total water use. Using water efficiently outdoors can save tens of thousands of gallons of water. Simple ways to reduce water waste at home include:

Avoid water run-off when irrigating

Water between 6pm – 6am

Don't water 2 days after measurable rainfall

Install a Weather Based Irrigation Controller

Automatically Adjusts to the Weather

Get a new weather based controller through the direct installation program at no cost to you.

For details visit eastvalley.org/rebates

BEYOND the FAUCET

[CALIFORNIA'S NEW WAY OF LIFE]

Let East Valley Water District be your resource for looking beyond the faucet to make changes that add up to something greater. Ready to get started? Join us at the next free conservation workshop to learn about the steps you can take to reduce consumption.

Visit *eastvalley.org/conservation* for an events calendar. Workshops are held throughout the year and make a fun activity for the whole family.

60+
LOW WATER USE PLANTS

Visit the District's demonstration garden to view a colorful display of over 60 low water use plant species that are easy to maintain and are appropriate for our region's climate.



More than 625 indoor and outdoor rebates were issued in 2019-2020.



REBATE PROGRAMS THAT SAVE

When it comes to conservation, one size doesn't fit all. When considering the unique needs of every customer, the District offers a variety of indoor and outdoor rebate programs to put money back in your wallet for making the switch to high-efficiency fixtures.

Visit *eastvalley.org/rebates* to apply or call (909) 806-4287 for more information.

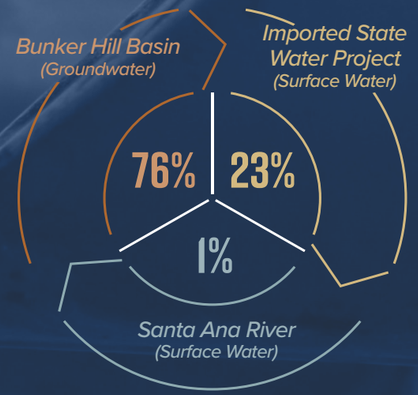
Where does our water come from?

With a service area just over 30 square-miles, the District has three sources for water, the Santa Ana River, the Bunker Hill Groundwater Basin, and the State Water Project. The Santa Ana River starts with natural springs and snow melt high in the San Bernardino Mountains. While many different agencies enjoy the use of the Santa Ana River, EVWD receives water just south of the Seven Oaks Dam. Along the way, it powers the Southern California Edison SAR #1 and #3 Hydroelectric Plant, and then travels down the North Fork Canal to the Philip A. Disch Surface Water Treatment Plant (Plant 134). Plant 134 is a state-of-the-art facility that uses an ultra-filtration treatment method and can treat up to 8 million gallons of water a day.

Groundwater is drawn from the Bunker Hill Basin, a natural underground storage area made up of soil, sand, and gravel. Rain water percolates down and is accessed using a series of 15 wells that pump water from different depths. With the range of elevations within the service area, it is important to have these wells located throughout the District, for both emergency preparedness and system efficiencies. Well sites are positioned across the District, from the undeveloped areas like Plant 125 east of Cone Camp Road to Plant 24 on the corner of Lynwood Drive and Harrison Street, which is also used as a public park.

A portion of the District's water is imported from Northern California through the State Water Project. EVWD has access to this water through San Bernardino Valley Municipal Water District. Imported water is an important component of the District's long-term water plan. Its use and availability varies year-to-year.

15,000,000
Average Gallons of Water Produced/Day



EVWD Sources of Water

Preventing Contamination

THE KEY TO KEEPING WATER SUPPLIES SAFE

THE DISTRICT MONITORS 15 ACTIVE GROUNDWATER WELLS

Once a drinking water source becomes contaminated, a community is faced with the difficult and costly task of installing treatment facilities or locating an alternative source. You can help protect our precious water supply by disposing of harmful household products and other toxic chemicals in the proper manner. Household hazardous waste includes, but is not limited to: cleaners, glues, soaps, pesticides, paints, fertilizers, medicines, chlorine, motor oil and batteries.

Never dump these wastes down the drain, in the trash or on the ground. Instead, take them to a hazardous waste collection or recycling center. Whenever possible, reduce your use of toxic household products such as commerical pesticides to natural alternatives.

Visit sbcfire.org/ofm/hhw/CollectionFacilities.aspx for a list of collection facilities available to San Bernardino County residents.

water quality tables twenty nineteen

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The tables on pages 8 and 9 list all the drinking water contaminants that we sampled for in our water system during the 2019 calendar year. The presence of these contaminants in the water does not necessarily mean that the water poses a health risk. Unless otherwise noted, the data presented in the tables are from testing performed from January 1 - December 31, 2019. *More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791) .*

More information online at eastvalley.org/waterquality

SWRCB-DDW requires us to monitor our water for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

In general, the sources of all drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activity.

Contaminants

are polluting substances that may be present in the source water, including:

- Microbial contaminants, such as viruses and bacteria may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.
- Radioactive contaminants, may be naturally occurring or be the result of oil and gas production and mining activities.
- Inorganic contaminants, such as salts and metals, may be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. We are required to treat our water according to the SWRCB-DDW regulations (State Water Resources Control Board's regulations are the same or more stringent than USEPA's regulations). The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals such as persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about their drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) offer guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants. These guidelines are available by calling the Safe Drinking Water Hotline (800) 426-4791.

2019 water quality data

Chemical	MCL	PHG (MCLG)	Average Level Detected	Unit of Measure	Range of Detection	Violation Y/N	Likely Source of Contamination
MICROBIOLOGICAL CONTAMINANTS SAMPLED IN 2019							
Total Coliform Bacteria *(Total Coliform Rule)*	<5% Positive Samples per Month	0	A	Present (P) or Absent (A)	NON-DETECT	N	Naturally present in the environment
Fecal Coliform and E. Coli	>1% Positive Sample per Month	0	A	Present (P) or Absent (A)	NON-DETECT	N	Human/Animal Waste
DISINFECTION BYPRODUCTS, DISINFECTION RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS							
Total Trihalomethanes* (TTHM)	80 ug/L	n/a	74	ppb	0-87	N	By-product of drinking water disinfection
Haloacetic Acids* (HAA5)	60 ug/L	n/a	15	ppb	0-21	N	By-product of drinking water disinfection
Chlorine	MRDL = 4.0 mg/L	MRDL = 4.0 mg/L	0.67	ppm	0.20-2.02	N	Drinking water disinfectant
RADIOACTIVE CONTAMINATES SAMPLED IN 2019							
Gross Alpha Particle Activity (*when Gross Alpha particle activity exceeds 5.0 pCi/L, then analyze for uranium)*	15 pCi/L	N/A	0	pCi/L	0	N	Decay of natural and man made deposits
Uranium‡	20 pCi/L	N/A	0.201	pCi/L	<0.038-0.96	N	Decay of natural and man made deposits
INORGANIC CHEMICAL ANALYSES SAMPLES COLLECTED 2016-2019							
Aluminum	1	0.6	0.009	ppm	<0.014-0.075	N	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride	2	1	0.86	ppm	0.15-1.5	N	Erosion of natural deposits
Nitrate (as N)	10	10	3.86	ppm	0.56-7.7	N	Runoff of leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Colonies/mL: A measure of the number of coliform colonies (bacteria) per known volume of water.
< Means "Less Than": For example <0.2 means the lowest detectable levels is 0.2 and that the contaminant was less than 0.2 and therefore not detected.
> Means "Greater Than": For example .1 means any sample tested having a value greater than 1.

DID YOU KNOW?
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water, below, which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.
ND: Not detected or below the detection limit for reporting.
RTCR: Revised Total Coliform Rule

** TTHM and HAA5 are sampled quarterly and results are calculated based on a locational running annual average per State Water Resources Control Board Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.*

N/A: Not applicable.

DID YOU KNOW?
Parts Per Million (PPM): One part per million corresponds to one minute in two years or one penny in $10,000.00 (Ten thousand dollars).
Parts Per Billion (PPB): One part per billion corresponds to one minute in 2,000 years or one penny in $10,000,000.00 (Ten million dollars).
Parts Per Trillion (PPT): One part per trillion corresponds to one minute in 2,000,000 years or one penny in $10,000,000,000.00 (ten billion dollars).

‡If Uranium exceeds 20 pCi/L, then monitor for four quarters. If the average of four quarters is <20, then you are in uranium compliance, but must calculate gross alpha minus uranium Counting Error (CE) pCi/L. If the result is less than 15 pCi/L, then you are in Gross Alpha MCL compliance. East Valley Water District is well within MCL standards after these analysis calculations.

PicoCuries per Liter (pCi/L): A measure of the radioactivity in the water. *System Water: A blend of surface water and groundwater.*

INORGANIC CHEMICAL ANALYSES (CONTINUED)

Chemical	MCL	PHG (MCLG)	Average Level Detected	Unit of Measure	Range of Detection	Violation Y/N	Likely Source of Contamination
Arsenic	10	0.0021	0	ppb	0.000-0.0021	N	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Chromium [Total]	50	0	0	ppb	<0-0	N	Discharge from electroplating factories

CONTAMINATES BELOW WERE SAMPLED FOR AND NOT DETECTED

Antimony; Barium; Beryllium; Cadmium; Chromium; Cyanide; Mercury; Nickel; Nitrite; Nitrate as N; Perchlorate; Selenium; Silver; Thallium; Carbonate; Hydroxide; Zinc; Vinyl Chloride; Trichlorofluoromethane (FREON11) ; 1,1-Dichloroethylene (1,1-DCE); 1,1,2-Trichloro-1,2,2-trifluoroethane; Dichloromethane (Methylene Chloride); trans-1,2-Dichloroethylene (t-1,2-DCE); Methyl tert-Butyl Ether; 1,1-Dichoroethane (1,1-DCA); cis-1,2-Dichloroethylene (c-1,2-DCE); Carbon Tetrachloride; 1,1,1-Trichloroethane (1,1,1-TCA); Benzene; 1,2-Dichlorothane (1,2-DCA); Trichloroethylene (TCE); 1,2-Dichloropropane; Toluene; Tetrachloroethylene (PCE); Monochlorobenzene (Chlorobenzene); Ethyle Benzene; m,p-Xylene; cis-1,3-Dichloropropene; o-Xylene; trans-1,3-Dichloropropene; Styrene; 1,1,2,2-Tetrachloroethane; 1,4-Dichlorobenzene (p-DCB); 1,2-Dichlorobenzene (o-DCB); 1,2,4-Trichlorobenzene; Total 1,3-Dichloropropene; Total Xylenes (m,p & o), 1,2,3, Trichloropropane

There is currently no MCL for Hexevalent Chromium. The previous MCL of 0.010 mg/L was withdrawn on September 11, 2017

SURFACE WATER TURBIDITY

	MCL	Secondary MCL (NTU)	Highest Level Found	Range of Detection	Violation Y/N	Likely Source of Contamination
Turbidity	TT=1 NTU TT = 95% of samples <0.3 NTU	5	0.5	<0.1-0.5	N	Soil Runoff

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
Nephelometric Turbidity Units (NTU): A measure of cloudiness due to undissolved solids in the water. We measure turbidity because it is a good indication of the effectiveness of our filtration system and/or water quality.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
Turbidity: A measure of cloudiness due to undissolved solids in the water. Monitored as an indicator of the effectiveness of the filtration system.

LEAD AND COPPER AT RESIDENTIAL TAPS (INORGANIC CONTAMINATES) SAMPLED IN 2018 NEXT SAMPLING REQUIREMENT IN 2021

Chemical	Action Level	Sites Above Action Level	PHG (MCLG)	Unit of Measure	# Samples Taken	90th Percentile	Violation Y/N	Likely Source of Contamination
Lead	15	1	0.2	ppb	61	0	N	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	1300	0	0.3	ppb	61	300	N	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits; leaching from wood preservatives

REGULATED SECONDARY CONTAMINANTS± SAMPLES COLLECTED 2016-2019

Chemical	Secondary MCL mg/L	DLR	Average Level Detected	Unit of Measure	Range of Detection	Violation Y/N	Likely Source of Contamination
Boron	N/A	1	0.35	ppm	0.11-0.79	N	Erosion of natural deposits
Chloride	250	1	25.5	ppm	7.9-53	N	Runoff/leaching from natural deposits; seawater influences
Color	15	3.0 CU	<3.0	Unit	ND-<3.0	N	Naturally-occuring organic matter
Conductivity	1600	2	441	micro umho/cm	300-760	N	Substances that form ions when in water; seawater influence
Ground Water Turbidity	5	0.1	0.02	NTU	<0.1-2.8	N	Soil runoff
Manganese	50	20	0.048	ppb	ND-<0.048	N	Leaching from natural deposits
Odor	3	1	1	TON	1-1 TON	N	Naturally-occuring organic materials

water quality data continued

REGULATED SECONDARY CONTAMINANTS (CONTINUED)±

Chemical	Secondary MCL mg/L	DLR	Average Level Detected	Unit of Measure	Range of Detection	Violation Y/N	Likely Source of Contamination
Sulfate	250	0.5	57	ppm	13-250	N	Runoff/leaching from natural deposits; industrial waste
Vanadium	N/A	50	0.0064	ppb	0.0047-0.0097	N	Erosion of natural deposits

±There are no PHGs, MCLGs or mandatory health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.
Color Units: A measure of color in the water.
Detection Limits for Recording (DLR): The designated minimum concentration, detected by particular analytical method that, if exceeded, must be reported to the State Water Resources Control Board Division of Drinking Water.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. MRDLGs are set by the U.S. Environmental Protection Agency.
Threshold Odor Number (TON): A measure of odor coming from the water.

UNREGULATED GENERAL MINERAL ANALYSIS† SAMPLES COLLECTED 2016-2019

Analyte	Recommended Limit	Average Level Detected	Unit of Measure	Violation Y/N
Alkalinity	500	105	ppm	N
Bicarbonate	1000	154	ppm	N
Calcium	200	36	ppm	N
Hardness (Total)	N/A	167	ppm	N
Magnesium	N/A	9.4	ppm	N
o-Phosphate	N/A	0.55	ppm	N
pH	6.5-8.5	7.73	ppm	N
Potassium	100	2.6	ppm	N
Sodium	200	38	ppm	N

†Contaminants not regulated.
pH: An expression of the intensity of the basic or acid condition of a liquid. The pH may range from 0 to 14, where 0 is most acid, 14 most basic and 7 neutral.
UCMR: Unregulated Contaminant Monitoring Rule

UNREGULATED CONTAMINANTS

Monitoring for additional contaminants helps the United States Environmental Protection Agency (USEPA) and State Water Resources Control Board Division of Drinking Water (SWRCB-DDW) determine where certain contaminants occur and whether the contaminants need to be regulated.

UNREGULATED CONTAMINANT MONITORING RULE-UCMR 4-SAMPLED IN 2019

Chemicals	Minimum Reporting Level	Range Detected	Average
Germanium	0.3 µg/L	0-1.6	0.23
Manganese	0.4 µg/L	0-45	2.31
Alphahexachlorocyclohexane	0.01 µg/L	0-0	ND
Chlorpyrifos	0.03 µg/L	0-0	ND
Dimethipin	0.2 µg/L	0-0	ND
Ethoprop	0.03 µg/L	0-0	ND
Oxyfluorfen	0.05 µg/L	0-0	ND
Profenofos	0.3 µg/L	0-0	ND
Tebuconazole	0.2 µg/L	0-0	ND
Total Permethrin (cis- & trans-)	0.04 µg/L	0-0	ND
Tribufos	0.07 µg/L	0-0	ND
HAA5	N/A	0.55-19.9	10.3
HAA6Br1	N/A	0.85-32.2	17.6
HAA5	N/A	0.55-19.9	10.3
HAA6Br[1]	N/A	0.85-32.2	17.6

ADDITIONAL TERMS DEFINED

Counting Error (CE): A value, usually in %, to account for a +/- error in lab counts of specific contaminants found during analysis.
MGD: Million Gallons per Day.
Microsiemens Per Centimeter (µS/cm): A measurement of the electrolytes in the water, which determines the ability of the water to conduct electrical current.
Micrograms per Liter (µg/L): A measure of a contaminant in a known quantity of water. 1 µg/L equals 1 part per billion. (See parts per billion.)
Milligrams per Liter (mg/L): A measure of a contaminant in a known quantity of water. 1 mg/L equals 1 part per million. (See parts per million.)
Nanogram (ng/L): A measurement of a contaminant in a known quantity of water. 1ng/L equals 1 part per trillion. (See parts per trillion.)
Primary Drinking Water Standards (PDWS): Primary Drinking Water Standards contain MCLs and MRDLs for contaminants that affect human health. These standards also include the monitoring and reporting requirements associated with each contaminant.
Public Health Goal (PHG): The level of a contaminant in drinking water, below, which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL): The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, such as public notification, that a water system must follow.
Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

UNREGULATED CONTAMINANT MONITORING RULE-UCMR 4-SAMPLED IN 2019 (CONTINUED)

Chemicals	Minimum Reporting Level	Range Detected	Average
HAA9[2]	N/A	0.85-42.9	23.1
[1]-butanol	2.0 µg/L	0-0	ND
[2]-methoxyethanol	0.4 µg/L	0-0	ND
[2]-propen-[1]-ol	0.5 µg/L	0-0	ND
butylated hydroxyanisole	0.03 µg/L	0-0	ND
o-toluidine	0.007 µg/L	0-0	ND
quinoline	0.02 µg/L	0-0	ND
Total Organic Carbon (TOC)	N/A	2600-3200	2867
Bromide	N/A	120-170	158

1 HAA6Br: Bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, and tribromoacetic acid.
2 HAA9: Bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid.

Did you know the District maintains:

28,977,000 GALLONS OF WATER STORAGE

Enough to Fill 44 Olympic-Sized Swimming Pools

Drinking Water
CONTAMINANT INFORMATION

The District collects water samples year-round.
Frequency depends on State regulations and health factors.

FLOURIDE

At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). Dental fluorosis may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children less than nine should be provided with alternative sources of drinking water or water that has been treated to remove fluoride to avoid the possibility of staining and pitting of their permanent teeth if the drinking water continues to have fluoride above 2.0 mg/L, older children and adults may safely drink the water.

For more information, please call Mike Hurst, Water Quality Coordinator at (909) 806-4222. You can obtain more information about fluoridation, oral health and current issues at: www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.

LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. East Valley Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead. (1-800-426-4791)

NITRATE (NO3)

Nitrate in drinking water at levels above 45 parts per million (ppm) is a health risk for infants less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness. Symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant or are pregnant, you should ask for advice from your health care provider.

TOTAL TRIHALOMETHANES (TTHM) AND HALOACETIC ACIDS (HAA5)

Federal and California/State MCL of 80 ppb-TTHM and 60 ppb-HAA5 are based on running annual averages. Total Organic Carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products include TTHM and HAA5. Drinking water containing these by-products in excess of the MCL may lead to liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. The District did not exceed the MCL for TTHM or HAA5 for the testing period represented in this report.

Source Water Assessments

EVWD completed Source Water Assessments in March 2002 on all of our active groundwater wells. The report includes a section listing the vulnerability to activities associated with contaminants detected in water supplies. To aid in your understanding that these occurrences can further contribute to groundwater contamination, we have included the following list of potentially contaminating activities.

- Airport: Maintenance, Fueling Area
- Agricultural Drainage
- Artificial Recharge Projects: Spreading Basins
- Automobile: Body Shops, Car Washes, Gas Stations, Repair Shops
- Boat Services: Repair, Refinishing
- Chemical: Petroleum Processing, Storage
- Contractor or Government Agency Equipment
- Storage Yards
- Dry Cleaners
- Fertilizer, Pesticide, Herbicide Application
- Fleet, Truck, Bus Terminals
- Funeral Services, Cemeteries
- Golf Courses
- Historic Gas Stations
- Housing: High Density
- Junk: Scrap, Salvage Yards
- Known Contaminant Plumes
- Lumber Processing and Manufacturing
- Machine Shops
- Metal Plating: Finishing, Fabricating
- Military Installations
- Parking Lots: Malls
- Parks, Schools
- Septic Systems: High Density, Low Density
- Sewer Collection Systems
- Surface Water: Streams, Lakes, Rivers
- Transportation Corridors: Roads, Right-of-Ways
- Underground Storage Tanks: Confirmed Leaking Tanks
- Utility Stations: Maintenance Areas
- Waste Transfer: Recycling Stations
- Wells: Water Supply, Agricultural, Irrigation, Abandoned

For more information on specific wells, contact the Engineering Department at (909) 888-8986.

PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)

With statewide concern regarding the potential contamination of drinking water supplies by PFAS, the SWRCB issued mandates for sampling of sources likely to be impacted. PFAS is a substance linked to the manufacturing and use of many daily products like Teflon, waterproofing and fast food packaging. In contrast to other contaminants, PFAS is considered the forever chemical due to its long chain bond. Although this contaminant is persistent, effective treatment methods have been identified and approved for drinking water. Like other agencies, the District completed initial sampling for these contaminants. After completing four quarters of samples, all results were non-detect for PFAS.

More information is available at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html.

keeping up with the pipes and

reliability

Maintaining system reliability is one of the District's top priorities. EVWD depends on system pipelines to collect water from each of the District's different sources and for transferring it to treatment plants, reservoirs, and to your tap.

263 WATER LEAKS REPAIRED

1,600 LINEAR FEET OF NEW WATER MAIN INSTALLED

In our efforts to keep water flowing, the District proactively performs infrastructure enhancements.

RECENT IMPROVEMENTS

- In 2019, the District replaced 1,600 linear feet of new water main on six streets
- Rehabilitated one reservoir, two water wells, and five booster pumps
- Installed tank mixing equipment at Plant 108 to prevent water stagnation

LOOKING FORWARD

- Pipeline improvements will continue with the replacement of 1,800 linear feet of water main
- Rehabilitation of reservoirs at designated plants
- Treatment process improvements at the District's surface water treatment plant
- Install tank mixing equipment at Plant 129's reservoir to prevent water stagnation

employee

spotlight



Often working behind the scenes, but never hesitating to serve the community or assist his colleagues, Dale Barlow exemplifies the spirit of service and partnership. For these selfless qualities, he was selected by his peers as the 2019 Employee of the Year.



Dale has proudly served the District community for 23 years, starting his career as a Field Crew Worker repairing leaks, maintaining fire hydrants, and operating construction equipment and now serving as the Facilities Maintenance Coordinator overseeing the maintenance of the District's headquarters, water facilities, and properties. In this image to the right, he is helping provide meals to local seniors during the COVID-19 health crisis.

Outside of the office, Dale enjoys spending quality time with his wife, children, and grandkids. Some of his favorite memories are made alongside his wife while scuba diving around the world. Together they've completed nearly 200 dives on 12 different islands. He also enjoys going on adventure motorcycle rides and glamping trips with his loved ones.

"During my service I've had the opportunity to work with a diverse group of people who genuinely enjoy their duties. Every day is filled with different tasks to accomplish. I am grateful for the opportunity to contribute to the District's vision of serving the community".

The Employee of the Year Award is presented to a District staff member who encourages a positive work environment, demonstrates visionary leadership and portrays dedication and dependability. Recipients of this award are selected by their peers and exemplify a high level of service to District customers, employees and the community. EVWD began this recognition program in 2012.

Enhancing Services

ONE METER AT A TIME

Beginning in 2016, as part of EVWD's Capital Improvement Program to enhance services, the District started the process of upgrading customers' meter to a Smart Meter at no additional cost to residents. By making the switch, consumption information is provided electronically to both customers and the District and the need for manual meter reading is significantly reduced. This improvement allows staff to focus on projects like system maintenance and pipeline replacements.

4,891 METERS READ MONTHLY

16,016 AMI AUTOMATIC METERS

Not sure if you have a Smart Meter? Contact Customer Service at (909) 889-9501 for an upgrade status.

SMART METERS ALLOW YOU TO:

- Monitor near 'real-time' water usage information
- View hourly, daily, and monthly consumption
- Identify leaks sooner
- Set consumption alerts
- Compare usage to the weather

VIEW YOUR WATER USAGE:

- Log into your EVWD online account
- Select the Utility Billing tab and your account number. Then, select the Consumption tab.

In May, the District completed phase four of the project with the installation of 4,702 meters, bringing the total to 16,016 customers using Smart Meters. The next and final phase is scheduled to begin in the fall and will upgrade the small percentage of remaining meters.

Learn more about the Smart Meter replacement project at eastvalley.org/AMI

DID YOU KNOW?

The District delivers an average of 15 million gallons of water per day to customers. In comparison, the world's largest aquarium tank can hold up to 12.87 million gallons.



Picnic Area, Demonstration Garden, Walking Paths, Workshop Space, and Special Events Area

Water Treated at the SNRC will Recharge the Local Bunker Hill Groundwater Basin

Hands-on Training and Career Experiences in Wastewater Treatment Available to Students and Residents

Improvements to the Surrounding Area Include Street Paving, Water Lines, Sidewalks, and More

opening 2021

Capable of recycling up to 8 million gallons of water per day, the SNRC will create a sustainable new water supply for our region and enhance the quality of life for residents by providing new opportunities in the form of education and training, community space, and neighborhood improvements.

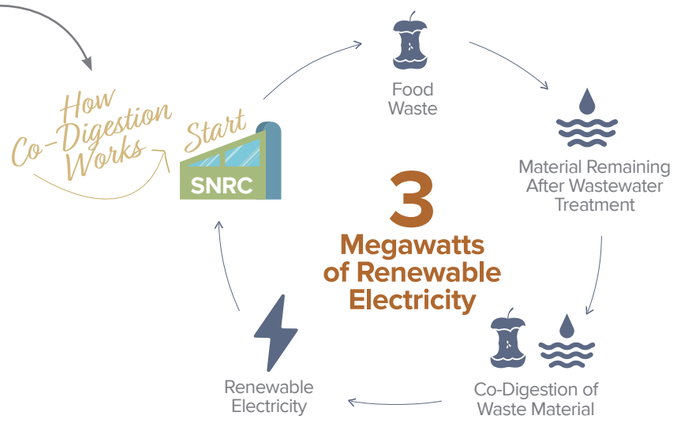
Maximizing Resources

The SNRC is being constructed on 16-acres located at North Del Rosa Drive between East 5th Street and East 6th Street, and strives to create a sustainable future by maximizing the use of resources.

- State-of-the-art co-digestion technology will give food waste a new purpose.
- Material remaining after the treatment of wastewater will be combined with food waste to create renewable electricity.
- Renewable electricity will offset the SNRC's operating costs.
- Extra energy created will be transferred onto the electricity grid.

STERLING
NATURAL RESOURCE CENTER
MAKING EVERY SOURCE A RESOURCE

Co-digestion was added to the project in 2019. This enhancement represents a significant improvement to the project by allowing the SNRC to produce enough renewable electricity to meet the facility's energy needs, with additional electricity transferred onto the energy grid.



The SNRC is Funded in Part By:

PROP 1 WATER BOND 2014 · Clean Water State Revolving Fund · California Water Boards · California natural resources AGENCY · EPA United States Environmental Protection Agency · URBAN GREENING · California Climate Investments, Cap and Trade Dollars at Work

**Funding for this Sterling Natural Resource Center project has been provided in full or in part by the Proposition 1 - the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds.*

The Urban Greening Program is part of California Climate Investments, a statewide program that puts billions of cap-and-trade dollars to work reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment—particularly in disadvantaged communities. The cap-and-trade program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. California Climate Investment projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling and much more. At least 35 percent of these investments are made in disadvantaged and low-income communities. For more information, visit California Climate Investments.

Preparing Tomorrow's Water Leaders

– BUILDING COMMUNITY, DEVELOPING LEADERS –
WATER AND RESOURCE MANAGEMENT PATHWAY
EST. 2020

Students from San Bernardino and Highland can now prepare for a career in the water and wastewater industry. In February 2020, San Bernardino City Unified School District (SBCUSD) and EVWD celebrated the launch of the Water and Resource Management Career Pathway with a ribbon cutting ceremony alongside students, local leaders, and community partners at Indian Springs High School (ISHS).

By training local students in the unique skillset of wastewater treatment, members of this community could be hired to fill technical positions. SBCUSD has more than 50 pathways designed to prepare high school students for college and careers. The addition of the new Water and Resource Management Pathway brings the total to three pathways at ISHS alongside the Academy of Health Sciences and Medical Technology and Academy of Manufacturing and Product Development Design.



Wastewater maintenance is responsible for safeguarding the wastewater conveyance system with preventative monitoring, scheduled maintenance and repairs.

6,000,000
AVERAGE GALLONS OF SEWER CONVEYED DAILY

54 MILES
SEWER VIDEO MONITORING

127 MILES
SEWER CLEANED

watch now

The Sterling Natural Resource Center is an active construction site!

Time-lapse construction videos for both east and west sides of the project can be viewed online at: eastvalley.org/snrc

East Valley Water District

31111 GREENSPOT ROAD
HIGHLAND, CALIFORNIA 92346

East Valley Water District was formed in 1954 and provides water and wastewater services to 103,000 residents within the cities of San Bernardino and Highland, and portions of San Bernardino County.

EVWD operates under the direction of a 5-member elected Board.

This report is a summary of the quality of the water that East Valley Water District provided to its customers in 2019. Included are details about where the water comes from, what it contains and how it compares to State and Federal standards.

In our continuing effort to keep our customers informed, we are providing you with updated information because well-informed customers are empowered water consumers. If after reading this report, you have any questions regarding your water quality, please contact Water Quality Coordinator Mike Hurst at (909) 806-4222.

CUSTOMER SERVICE & AFTER-HOURS EMERGENCY SERVICE (909) 889-9501

OFFICE HOURS

Monday – Thursday 8:00am – 5:00pm
2nd and 4th Tuesday 9:00am – 5:00pm
Friday 7:30am – 4:30pm

DISTRICT BOARD MEETINGS

Second and Fourth Wednesday of Each Month at 5:30pm

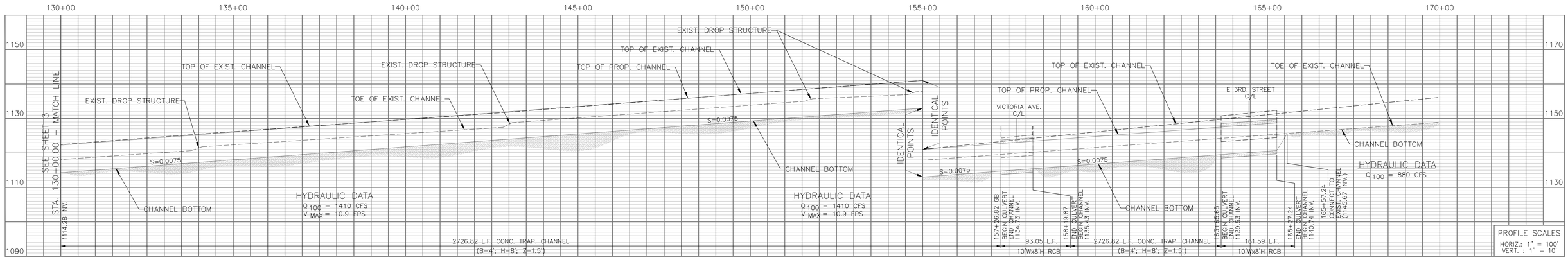
District Headquarters Board Room
31111 Greenspot Road
Highland, CA 92346

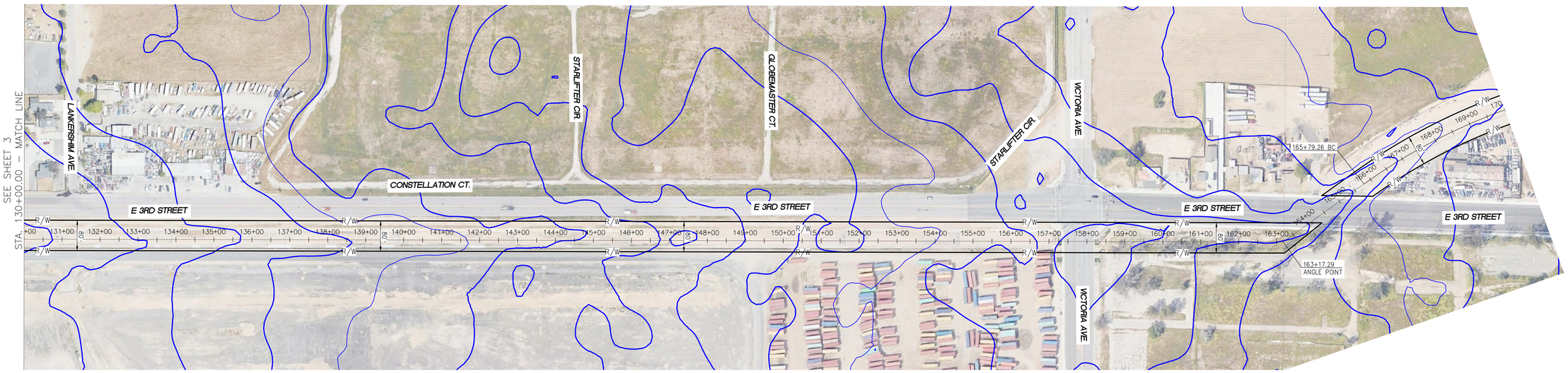
@eastvalleywaterdistrict | @eastvalleywater | @eastvalleywaterdistrict

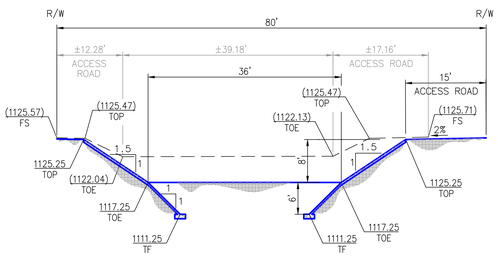
CITY CREEK

IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

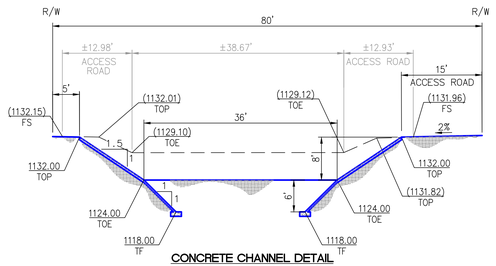
CHANNEL ALTERNATIVES



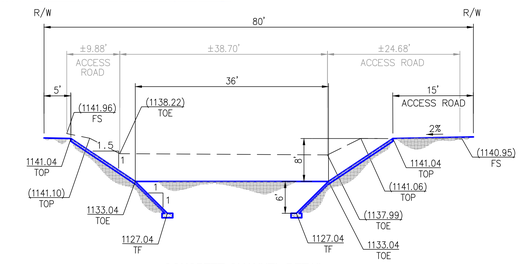




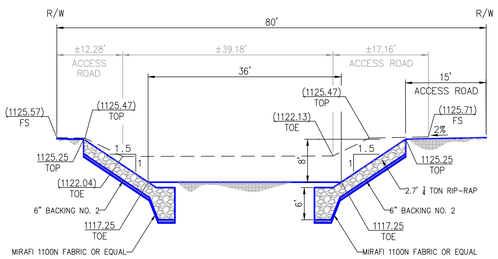
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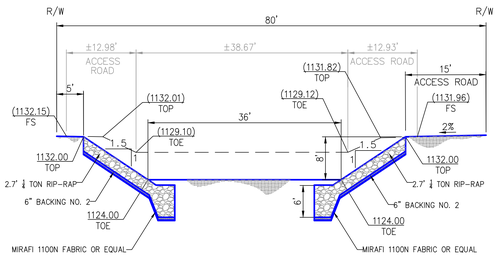
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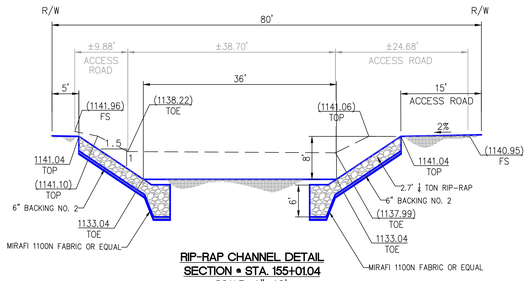
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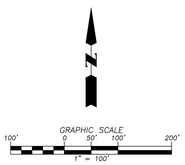
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SECTION • STA. 142+95.97
SCALE: 1"=10'



RIP-RAP CHANNEL DETAIL
SECTION • STA. 155+01.04
SCALE: 1"=10'



SHEET 4

CITY CREEK

CHANNEL ALTERNATIVES

JLC Engineering & Consulting, Inc.
41660 IVY STREET, SUITE A
MURRIETA, CA 92562
PH. 951.304.9552 FAX 951.304.3568

Drawing Name: G:\254.01.17\Original Alternatives sheet 04.dwg
Last Opened: Oct 22, 2019 - 8:03pm by Matt

APPENDIX 9

Noise Analysis

Airport Gateway Specific Plan

NOISE IMPACT ANALYSIS

CITIES OF SAN BERNARDINO AND HIGHLAND

PREPARED BY:

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APRIL 6, 2021

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
L_{min}	Minimum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Airport Gateway Specific Plan
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for Airport Gateway Specific Plan development ("Project"). The Project area covers approximately 679.2 acres with parcels in both the City of Highland and the City of San Bernardino. At the time this noise analysis was prepared, the future tenants of the proposed Project were unknown, and therefore, this noise study includes a conservative analysis of the proposed Project uses. This study has been prepared to satisfy applicable Cities of San Bernardino and Highland standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

The results of this Airport Gateway Specific Plan Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Potentially Significant*	*Significant and Unavoidable*
Operational Noise	9	*Potentially Significant*	*Less Than Significant*
Construction Noise	10	*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of Airport Gateway Specific Plan (AGSP) ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The Airport Gateway Specific Plan Project is located immediately north of the San Bernardino International Airport (SBIA) west. The Specific Plan area is bounded generally by 6th Street and Highland Creek on the north, 3rd Street and the SBIA on the south, State Route 210 (SR-210) on the east, and Tippecanoe Avenue on the west as shown on Exhibit 1-A. North of the Specific Plan area (on the north side of 6th Street) is bordered by a mix of low- and medium-density residential uses and vacant parcels, as well as several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park and the Highland Branch Library.

1.2 PROJECT DESCRIPTION

The Project area covers approximately 679.2 acres. The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194.2 acres). The Specific Plan area is depicted on Exhibit 1-B.

The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area. The AGSP would replace the existing uses within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail/hotel uses. Development of the Specific Plan area will be accomplished over time, as market conditions allow, and as developers are successful in assembling individual parcels into parcels large enough for the allowed uses.

The on-site Project-related operations are expected to include a combination of noise source activities that will likely include: loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP

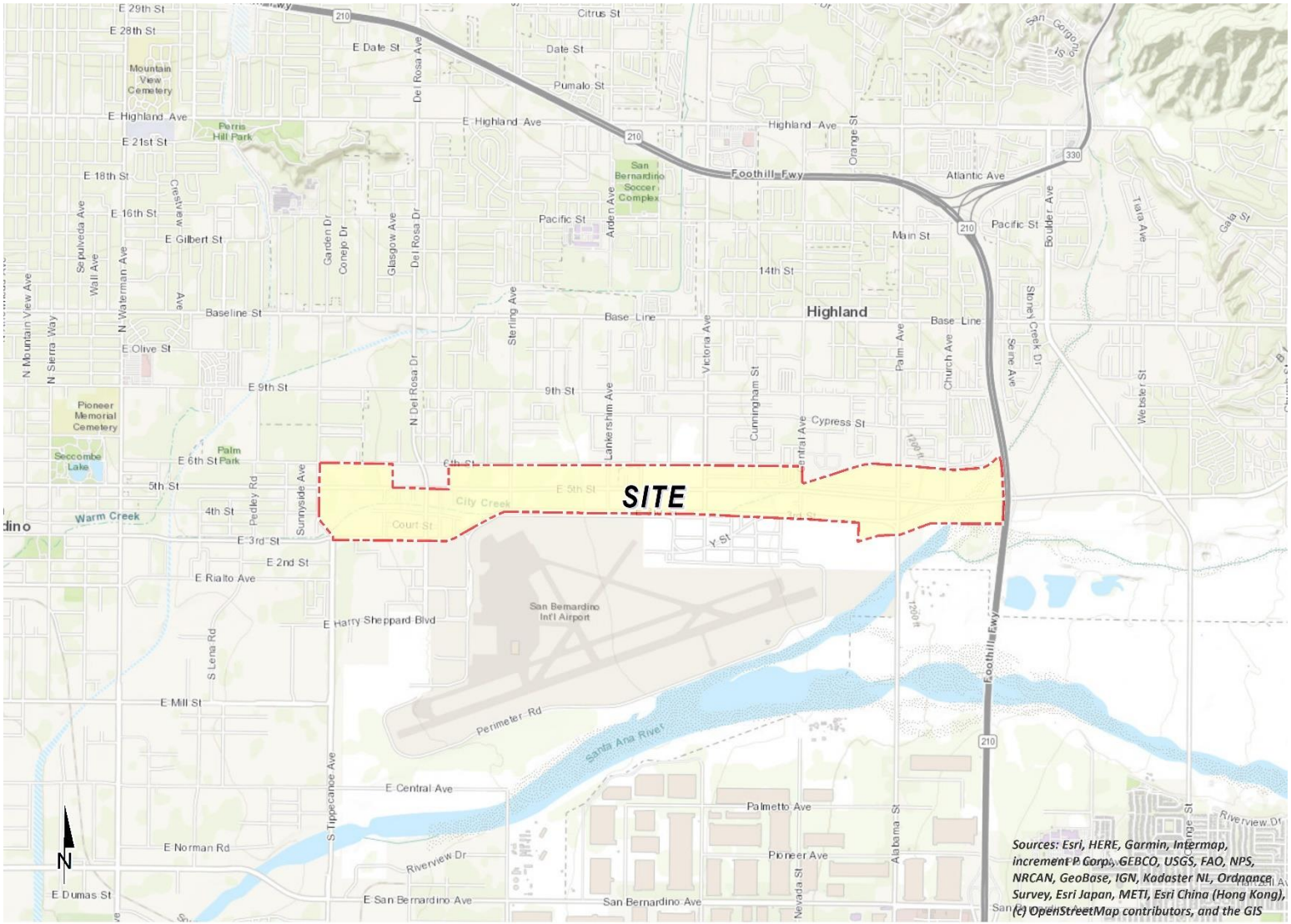
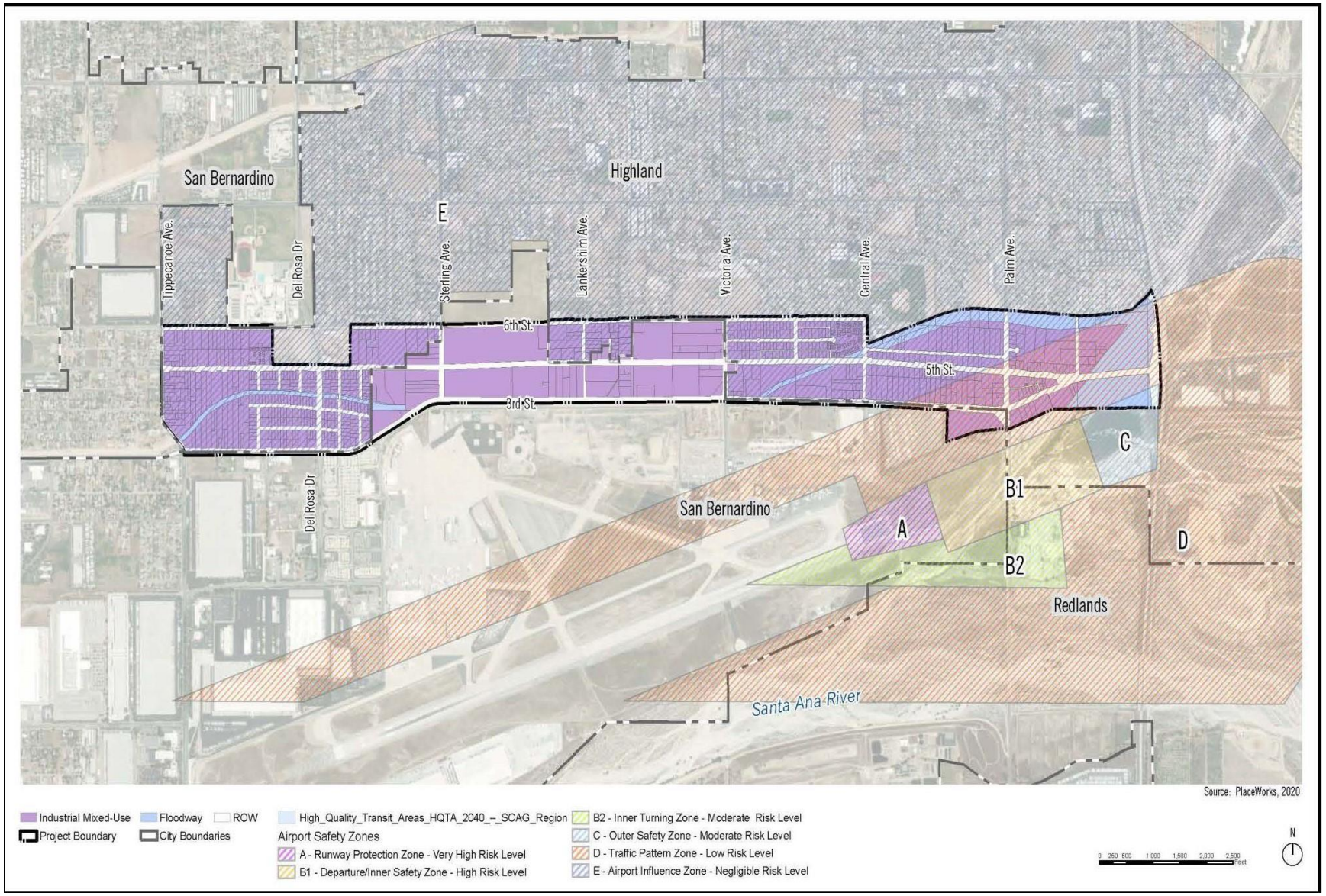


EXHIBIT 1-B: SITE PLAN



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2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period (typically one hour) and is commonly used to describe the "average" noise levels within the environment.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50}, L_{25}, L_8 and L_2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent and 2 percent of a stated time. Sound levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. The relies on the percentile noise levels to describe the stationary source noise level limits. While the L_{50} describes the noise levels occurring 50 percent of the time, the L_{eq} accounts for the total energy (average) observed for the entire hour.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The Cities of San Bernardino and Highland relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearest residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (4)

2.3.5 REFLECTION

Field studies conducted by the FHWA have shown that the reflection from barriers and buildings does not substantially increase noise levels. (4) If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify

reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by up to 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (4)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (5)

2.7 COMMUNITY RESPONSE TO NOISE

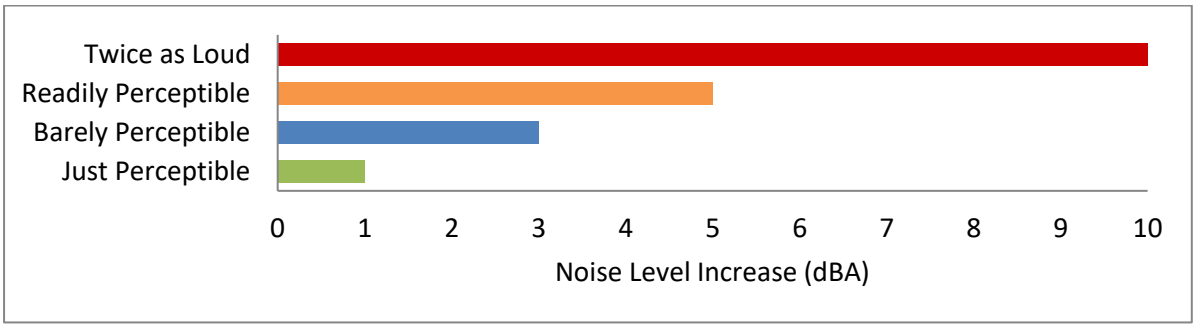
Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (6) Surveys have shown that about ten percent of the people exposed to

traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (6) Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (4)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



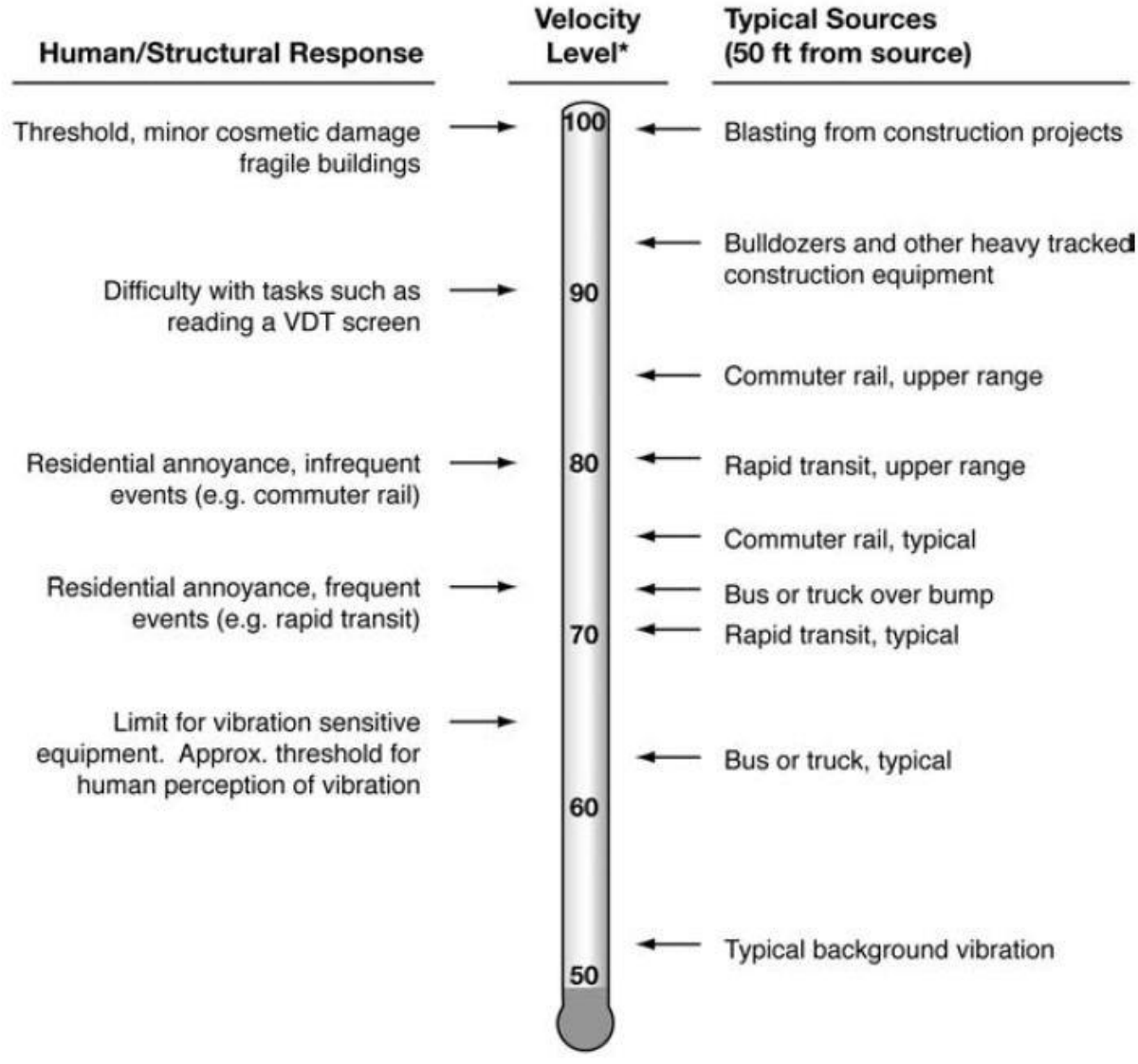
2.8 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (7), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (8) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The State of California's Green Building Standards Code (CALGreen) contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (9) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level of 50 dBA L_{eq} in occupied areas during any hour of operation (Section 5.507.4.2).

3.3 CITY OF SAN BERNARDINO GENERAL PLAN NOISE ELEMENT

The City of San Bernardino General Plan Noise Element identifies several policies to minimize the impacts of excessive noise levels throughout the community. (10) The Noise Element provides policy guidance which addresses the generation, mitigation, avoidance, and the control of excessive noise. To protect the City of San Bernardino residents from excessive noise levels, the Noise Element contains the following three goals:

14.1 Ensure that residents are protected from excessive noise through careful land planning.

14.2 Encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations, and railroad movements.

14.3 Protect residents from the negative effects of "spill over" or nuisance noise.

The noise policies specified in the Noise Element provide the guidelines necessary to satisfy these goals. To ensure that residents are not exposed to excessive noise levels (Goal 14.1), Policies 14.1.1 to 14.1.4 indicate that sensitive land uses such as housing, health care facilities, schools, libraries, and religious facilities should not experience exterior noise levels greater than 65 dBA LDN for exterior areas and 45 dBA LDN for interior areas. As discussed in Section 2.2 the more conservative CNEL descriptor is used in this analysis, and therefore, the exterior noise level criteria of 65 dBA CNEL and interior noise level criteria of 45 dBA CNEL shall apply to sensitive land uses. Policies 14.2.1 to 14.2.19 outline the transportation-related guidelines and mitigation strategies the City uses to satisfy Goal 14.2. To protect residents from sources of operational and construction noise (Goal 14.3), the Noise Element includes Policies 14.3.1 to 14.3.8 to adopt a Noise Ordinance and ensure noise issues between land uses are reduced. (10)

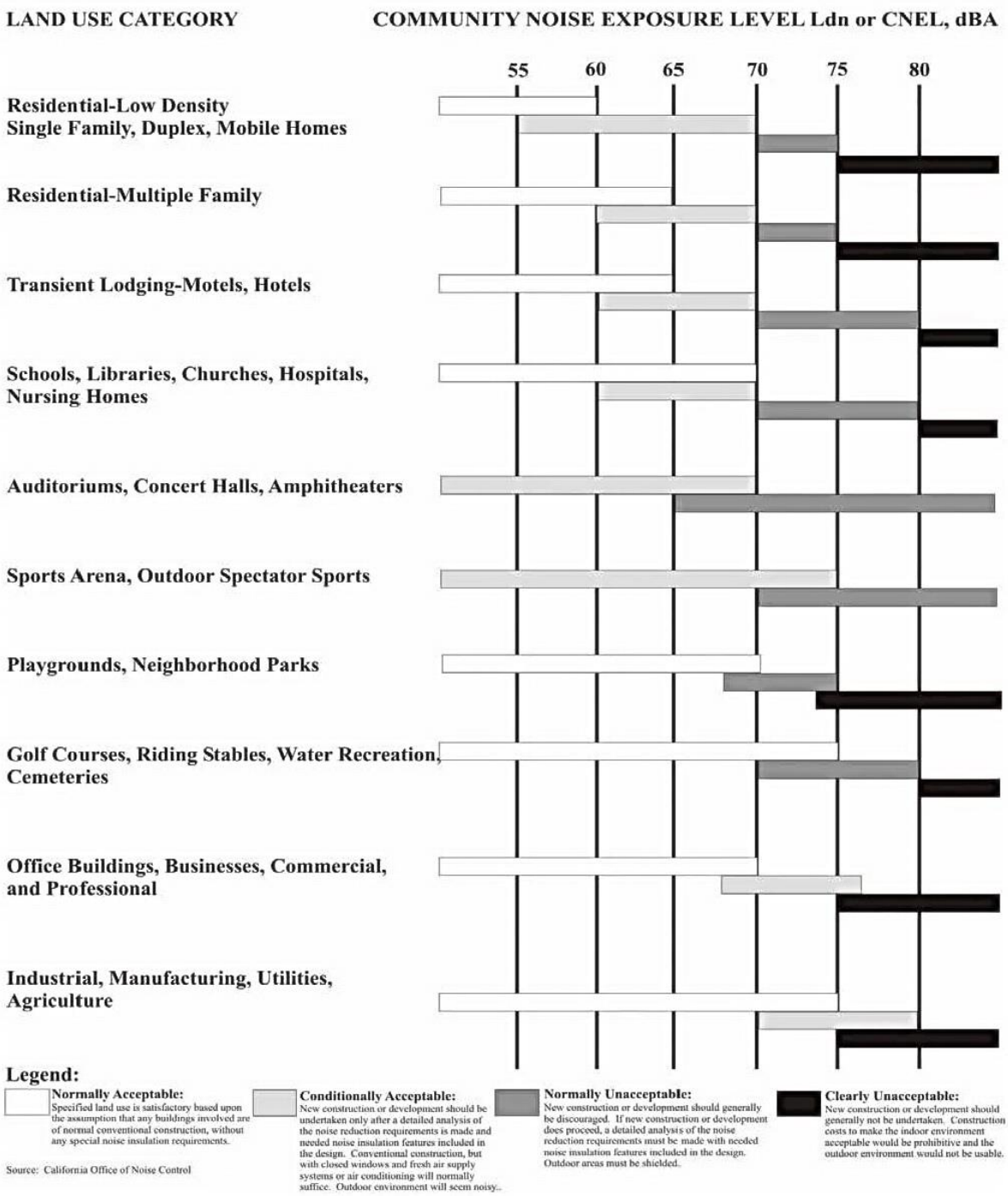
3.3.1 LAND USE COMPATIBILITY

The noise criteria identified in the City of San Bernardino Noise Element (Figure N-1) are guidelines to evaluate the land use compatibility of transportation-related noise. The compatibility criteria, shown on Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The *Land Use Compatibility for Community Noise Exposure* guidelines indicate that industrial land uses, such as the Project, are considered *normally acceptable* with noise levels below 75 dBA CNEL and *conditionally acceptable* with noise levels of less than 80 dBA CNEL.

3.3.2 TRANSPORTATION NOISE STANDARDS

To encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations and railroad movements (Goal 14.2), Table N-3 of the City of San Bernardino General Plan Noise Element, shown on Exhibit 3-B, identifies a maximum allowable exterior noise level of 65 dBA CNEL and an interior noise level limit of 45 dBA CNEL for new residential developments. While the City specifically identifies an exterior noise level limit for noise-sensitive residential land uses such as hotels, hospitals, schools, and parks, the City of San Bernardino does not maintain exterior noise standards for non-noise sensitive land uses such as manufacturing, warehousing, wholesale and utilities.

EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE



Source: City of San Bernardino General Plan Noise Element, Figure N-1.

EXHIBIT 3-B: INTERIOR AND EXTERIOR NOISE STANDARDS

Land Use		*CNEL (dBA)*	
Categories	***Uses***	***Interior [1]***	***Exterior [2]***
Residential	Single and multi-family, duplex	45[3]	65
	Mobile homes	----	65[4]
Commercial	Hotel, motel, transient housing	45	---
	Commercial retail, bank, restaurant	55	---
	Office building, research and development, professional offices	50	---
	Amphitheater, concert hall, auditorium, movie theater	45	---
	Gymnasium (Multipurpose)	50	---
	Sports Club	55	---
	Manufacturing, warehousing, wholesale, utilities	65	---
	Movie Theaters	45	---
Institutional/ Public	Hospital, school classrooms/playgrounds	45	65
	Church, library	45	---
Open Space	Parks	---	65

[1] Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors

[2] Outdoor environment limited to:

- Private yard of single-family dwellings
- Multi-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)
- Mobile home parks
- Park picnic areas
- School playgrounds
- Hospital patios

[3] Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

[4] Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

Source: City of San Bernardino General Plan Noise Element, Table N-3.

3.4 OPERATIONAL NOISE STANDARDS

To describe the potential Project-related operational noise level contributions, this analysis presents the appropriate operational noise standards for both the Cities of San Bernardino and Highland.

3.4.1 CITY OF SAN BERNARDINO

To analyze noise impacts originating from a designated fixed location or private property such as the AGSP, operational source noise is typically evaluated against standards established under a City's Municipal Code. While the City of San Bernardino maintains several policies in the Municipal Code Noise Control Ordinance to control the negative effects of nuisance noise, it does not identify specific exterior noise level limits. However, the policies in the Municipal Code Development Code, Chapter 19.20, *Property Development Standards* contain the exterior and interior noise level standards for residential land uses. Therefore, the stationary noise sources such as loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity originating from a designated fixed location or private property such as AGSP Development Site, are evaluated against the policies adopted in the City's Development Code. (11)

The Project operational noise impacts are governed by the City of San Bernardino Municipal Code, Section 8.54. Section 8.54.060 states when: *such noises are an accompaniment and effect of a lawful business, commercial or industrial enterprise carried on in an area zoned for that purpose*…these activities shall be exempt (Section 8.54.060(B)). (12) However, due to the Project's close proximity to residential land uses, located north of the Development Site boundary, Development Code, Section 19.20.030.15(A), limits the operational stationary-source noise from Airport Gateway Specific Plan Project to an exterior noise level of 65 dBA L_{eq} for residential land use. (11) The City of San Bernardino Municipal Code noise standards are shown on Table 3-1 and included in Appendix 3.1.

3.4.2 CITY OF HIGHLAND

The currently adopted City of Highland Municipal Code does not identify any quantifiable exterior noise level standards for non-transportation (stationary) noise sources. The 24-hour Community Noise Equivalent Levels (CNEL) outlined in Tables 7.1 and 7.2 in the City of Highland General Plan Noise Element do not reflect the currently adopted Municipal Code Noise Criteria. Therefore, this analysis relies on the City of San Bernardino Development Code noise standards to assess the noise impacts for receivers located within the City of Highland. The currently adopted City of Highland Municipal is included in Appendix 3.2 and the City of Highland General Plan Noise Element is included in Appendix 3.3.

TABLE 3-1: OPERATIONAL NOISE STANDARDS

Jurisdiction	Land Use	Exterior Noise Level Standard (dBA L_{eq})[1]
City of San Bernardino[1]	Residential	65
City of Highland	n/a	n/a

[1] City of San Bernardino Municipal Code, Section 19.20.030.15(A) (Appendix 3.1).
"n/a" = The City of Highland Municipal Code does not identify quantifiable exterior noise level standards for non-transportation noise sources (stationary).

3.5 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Project, noise from construction activities are typically limited to the hours of operation established under a jurisdiction's Municipal Code. Section 8.54.070 the City of San Bernardino Municipal Code, provided in Appendix 3.1, indicates that construction activity is restricted to the hours within 7:00 a.m. and 8:00 p.m. However, neither the General Plan Noise Elements or Municipal Codes for the Cities of San Bernardino and Highland establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or permanent increase in ambient noise levels*. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (7 p. 179)

3.6 CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. (7)

To analyze vibration impacts originating from the operation and construction of the AGSP, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the Cities of San Bernardino and Highland do not identify specific vibration level limits and instead this analysis relies on the Caltrans *Transportation and Construction Vibration Guidance Manual*, (13 p. 38) Table 19 and 20,

vibration damage and annoyance criteria are used in this noise study to assess potential temporary construction-related impacts at adjacent receiver locations.

3.6.1 BUILDING DAMAGE:

While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration. The construction vibration damage potential criteria include consideration of the building conditions. (3 p. 182) Table 3-2 describes the maximum acceptable transient and continuous vibration building damage potential levels by structure type and condition.

TABLE 3-2: BUILDING DAMAGE VIBRATION CRITERIA

Structure and Condition	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.

Most of the buildings near the Project site can be described as new residential structures with a maximum acceptable transient building damage vibration threshold of 1.0 PPV (in/sec).

3.6.2 HUMAN ANNOYANCE

For sensitive residential receiver locations, potential annoyance due to construction-related vibration levels is evaluated based on the Caltrans annoyance potential criteria. Table 3-3 describes the maximum acceptable criteria used to describe the transient and continuous sources of vibration. To describe the human annoyance due to construction vibration levels, this analysis relies on the *barely perceptible* maximum transient vibration threshold of 0.04 PPV (in/sec).

TABLE 3-3: HUMAN ANNOYANCE VIBRATION CRITERIA

Human Response	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 20, p. 38.

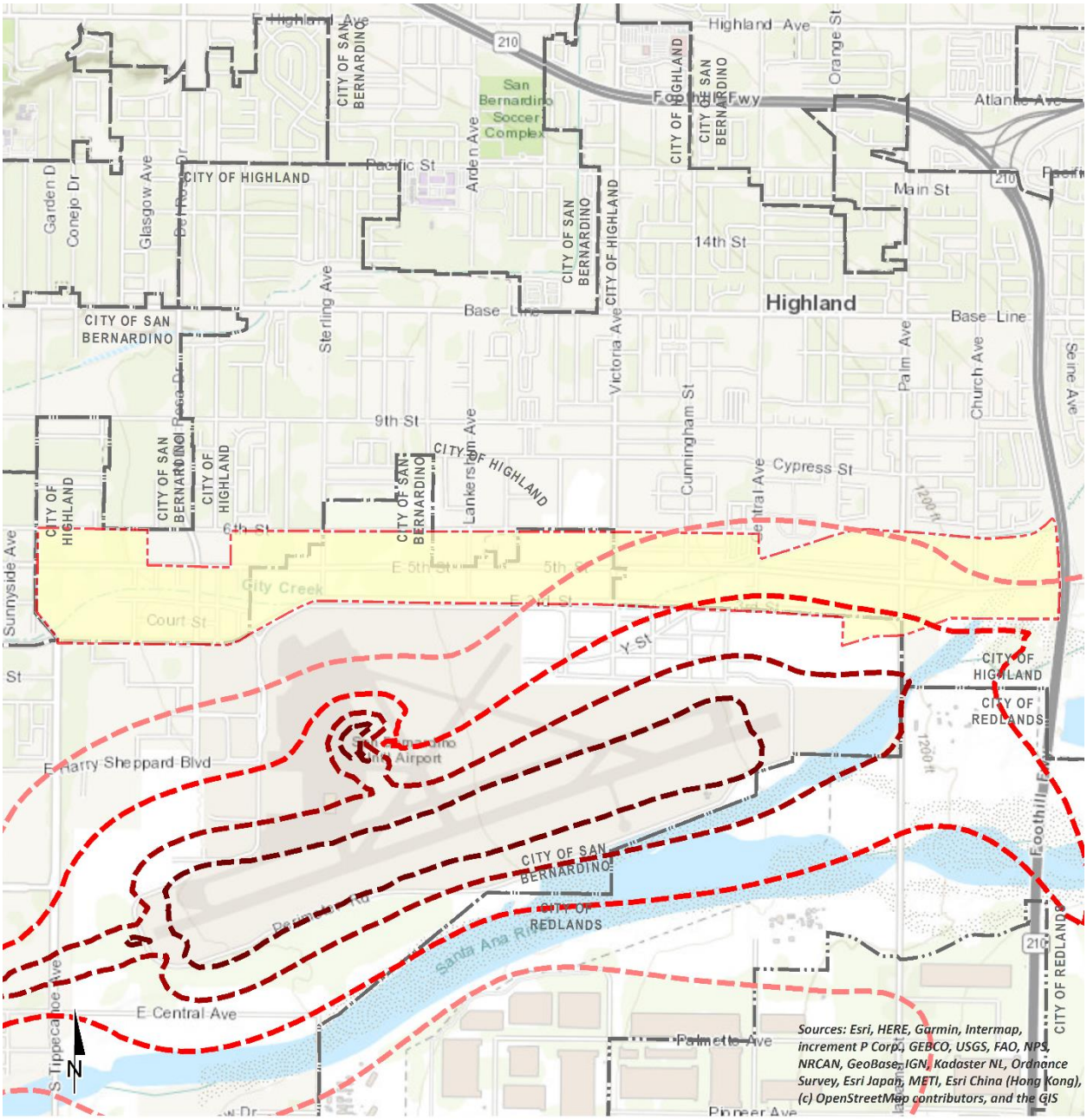
3.7 SAN BERNARDINO INTERNATIONAL AIRPORT (SBIA)

The Airport Gateway Specific Plan is located immediately north of the San Bernardino International Airport (SBIA). This places the Project Site within the SBIA Influence Area. The SBIA was initially built as Norton Air Force Base by the United States Air Force (USAF). Under the Base Realignment and Closure Act of 1990, Norton Air Force base was closed and disposed of by the USAF for a civilian aviation reuse in 1994 and transferred to the San Bernardino International Airport Authority (SBIAA). The SBIAA operates the facility as a public-use general aviation airport that accommodates aircraft ranging from piston-powered propeller aircraft to multi-engine jet aircraft including large air cargo aircraft. (14) The latest aircraft noise contour boundaries for the SBIA were published by the SBIAA on July 2, 2019 as part of the Eastgate Air Cargo Facility Final Environmental Assessment. (14) Figure 4-6 of the Final Environmental Assessment describes the future 2024 Proposed Project CNEL Contours for the SBIA. The future SBIA noise level contours boundaries representing approximately 87,500 annual aircraft operations are shown on Exhibit 3-C.

As shown on Exhibit 3-C the Project industrial land uses are generally located within the 60 to 65 dBA CNEL noise level contours of the SBIA. Therefore, the Project land use is considered *normally acceptable* according to the Cities of San Bernardino and Highland *Land Use Compatibility for Community Noise Exposure* as shown on Exhibit 3-A and must reduce the interior noise levels to 50 dBA L_{eq} to satisfy State of California Green Building Standards (Section 5.507.4.2) previously described in Section 3.2.

Standard building construction practices required under the State of California Green Building Standards Code (CALGreen) typically provide up to 25 dBA of attenuation. With respect to noise generated by the SBIA facilities and activities, application of standard CALGreen construction practices would yield acceptable Project interior noise levels of approximately 45 dBA L_{eq}. In addition, the Project does not propose or require facilities or actions that would contribute to or exacerbate noise generated by SBIA. Therefore, the Project would not be adversely affected by SBIA noise, nor would the Project contribute to or result in adverse airport noise impacts.

EXHIBIT 3-C: SAN BERNARDINO INTERNATIONAL AIRPORT (SBIA) NOISE CONTOURS



LEGEND: ***San Bernardino International (SBD) Airport Future Noise Level Contour Boundaries***

Development Site Boundary | 60 dBA CNEL | 65 dBA CNEL | 70 dBA CNEL | 75 dBA CNEL

Jurisdictional Boundaries

Source: Figure 4-6 of the Eastgate Air Cargo Facility Final Environmental Assessment published by the SBIAA on July 2, 2019.

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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

B. Generation of excessive ground-borne vibration or ground-borne noise levels?

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

While the Cities of San Bernardino and Highland General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial temporary or permanent for use under Guideline A. CEQA Appendix G Guideline C applies to the nearest public and private airports, if any, and the Project's land use compatibility.

4.1 CEQA GUIDELINES NOT FURTHER ANALYZED

As previously indicated in Section 3.6, the SBIA noise contour boundaries are presented on Exhibit 3-C of this report show that the Project is considered *normally acceptable* land use since it is located within the 60 to 65 dBA CNEL dBA CNEL noise level contour boundary and must reduce interior noise levels to 50 dBA L_{eq}. Standard building construction practices required under the State of California Green Building Standards Code (CALGreen) typically provide up to 25 dBA CNEL of attenuation. As such, application of standard CALGreen construction practices would yield acceptable Project interior noise levels of approximately 45 dBA L_{eq}. Since the Project would not be adversely affected by SBIA noise, nor would the Project contribute to or result in adverse airport noise impacts, potential airport noise impacts affecting the Project are therefore not further analyzed.

4.2 NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the nearest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise level increase represents a significant adverse environmental impact. In effect, *there is no single noise increase that renders the noise impact significant.* (15) Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing

environment to which one has adapted—the so-called *ambient* environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. Since neither the Cities of San Bernardino and Highland General Plan Noise Element or Municipal Code identify any noise level increase thresholds, the substantial noise level increase criteria are derived from the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual.*

To describe the amount to which a given noise level increase (stationary or mobile) is considered acceptable, the FTA criteria is used to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Threshold A. The amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. In effect, the amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Table 4-1 below provides a summary of the allowable criteria used to identify potentially significant incremental noise level increases for off-site and operational noise source activity.

TABLE 4-1: SIGNIFICANCE OF NOISE LEVEL INCREASES

Without Project Noise Level	Potential Significant Impact (dBA CNEL)
< 55 dBA	5 dBA or more
55 - 60 dBA	3 dBA or more
60 - 65 dBA	2 dBA or more
> 65 dBA	1 dBA or more

FTA Transit Noise and Vibration Impact Assessment Manual, 2018 (Table 4-6).

4.3 NON-NOISE-SENSITIVE RECEIVERS

The Cities of San Bernardino and Highland General Plan Noise Element, Figure N-1, *Land Use Compatibility for Community Noise Exposure* was used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Exhibit 3-A, the *normally acceptable* exterior noise level for non-noise-sensitive land use, such as office, retail and commercial use is 70 dBA CNEL and 75 dBA CNEL for industrial uses.

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *barely perceptible* 3 dBA criteria is used. (4) When the without Project noise levels are greater than the *normally acceptable* 70 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a *significant impact* since the noise level criteria is already exceeded.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed Project. Table 4-2 shows the significance criteria summary matrix.

TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive[1]	If ambient is < 55 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 55 - 60 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 2 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1 dBA CNEL Project increase	
	Non-Noise-Sensitive[2]	if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive[1]	Exterior Noise Level Limit[3]	65 dBA L_{eq}	
		If ambient is < 55 dBA L_{eq}	≥ 5 dBA L_{eq} Project increase	
		If ambient is 55 - 60 dBA L_{eq}	≥ 3 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA L_{eq}	≥ 2 dBA L_{eq} Project increase	
		If ambient is > 65 dBA L_{eq}	≥ 1 dBA L_{eq} Project increase	
	Non-Noise-Sensitive[2]	if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Construction	Noise-Sensitive	Restricted to the hours within 7:00 a.m. and 8:00 p.m.[4]		
		Noise Level Threshold[1]	80 dBA L_{eq}	n/a
		Building Damage Vibration Threshold[5]	1.0 PPV (in/sec)	
		Human Annoyance Vibration Threshold[5]	0.04 PPV (in/sec)	

[1] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018.
[2] City of San Bernardino General Plan Noise Element, Figure N-1.
[3] City of San Bernardino Development Code, Section 19.20.030.15(A) (Appendix 3.1).
[4] Section 8.54.070 of the City of San Bernardino Municipal Code (Appendix 3.1).
[5] Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19 & 20, p. 38.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at eight locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, September 9th, 2020. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (16)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (2) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (7)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (7) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels.

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

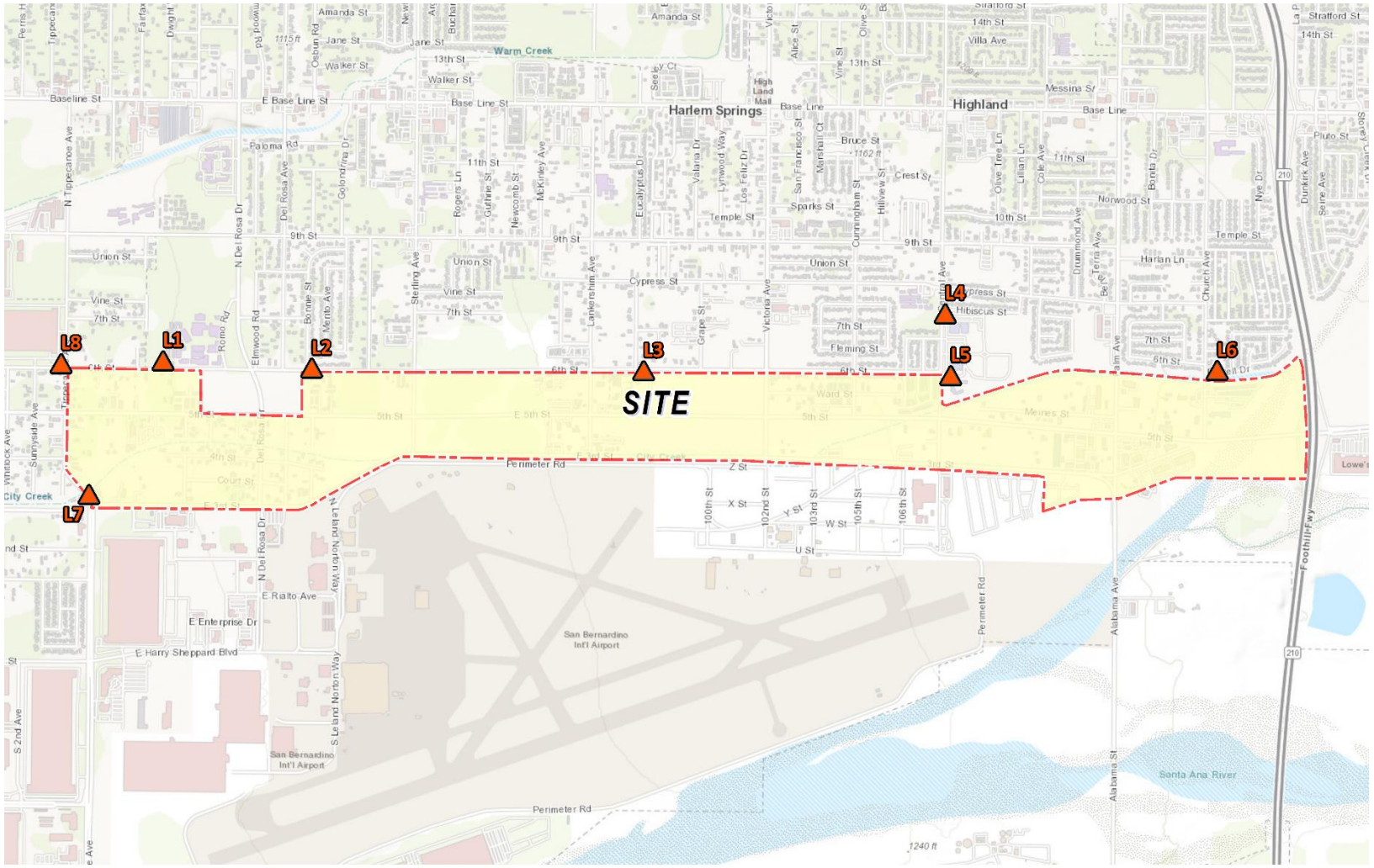
Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]		CNEL
		Daytime	Nighttime	
L1	Located north of the Project site in Indian Springs High School at 650 N Del Rosa Drive.	57.7	54.9	62.3
L2	Located north of the Project site on 6th Street near existing single family residential home at 7891 Bonnie Street.	64.2	59.1	67.2
L3	Located north of the Project site on 6th Street near existing single-family residential home at 7904 Roberts Street.	60.5	57.2	64.7
L4	Located north of the Project site on Central Avenue near the Highland Family YMCA at 7793 Central Avenue.	61.4	58.6	66.1
L5	Located north of the Project site by the Highland Branch Library at 7863 Central Avenue.	51.9	48.4	56.0
L6	Located northeast of the Project site on Powell Drive near existing single-family residential home at 7885 Church Avenue.	58.5	57.1	63.9
L7	Located southwest of the Project site on Tippecanoe Avenue across from Trinity Christian Fellowship Church at 8174 Tippecanoe Avenue.	70.6	68.8	75.8
L8	Located northwest of the Project site on 6th Street and Tippecanoe Avenue.	64.4	61.6	68.8

[1] See Exhibit 5-A and 5-B for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with surface streets. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations. The 24-hour existing noise level measurement results are shown on Table 5-1.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



LEGEND:

N

▲ Measurement Locations

6 TRAFFIC NOISE PREDICTION METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future off-site traffic noise environment.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (17) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (18) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (19)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 6-1 identifies the 39 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of San Bernardino and City of Highland General Plan Circulation Element, and the posted vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on *Airport Gateway Specific Plan Traffic Impact Study*, prepared by Kimley-Horn and Associates, Inc. for the following traffic scenarios under both Without and With Project conditions: Existing, and Future Build-Out 2040. (20)

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts, without and with project ADT traffic volumes from the Project traffic study.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Receiving Land Use[1]	Classification[2]	Centerline Distance to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	Major Arterial	50'	40
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	Major Arterial	50'	40
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	Secondary Arterial	44'	45
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	Secondary Arterial	44'	45
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	Major Arterial	50'	45
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	Major Arterial	50'	45
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	Major Arterial	50'	45
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	Major Arterial	50'	45
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	Major Arterial	33'	35
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	Major Arterial	50'	45
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	Major Arterial	50'	45
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	Major Arterial	50'	45
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	Major Arterial	50'	45
14	Sterling Avenue	Base Line to 9th Street	Sensitive	Major Arterial	50'	40
15	Sterling Avenue	9th Street to 6th Street	Sensitive	Major Arterial	50'	40
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	Major Arterial	50'	40
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	Secondary Arterial	44'	40
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	Secondary Arterial	44'	40
19	Victoria Avenue	Base Line to 9th Street	Sensitive	Secondary Arterial	44'	45
20	Victoria Avenue	9th Street to 6th Street	Sensitive	Secondary Arterial	44'	45
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	Secondary Arterial	44'	45
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	Collector	30'	40

ID	Roadway	Segment	Receiving Land Use[1]	Classification[2]	Centerline Distance to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	Collector	30'	40
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	Collector	30'	40
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	Collector	30'	40
26	5th Street	I-215 NB Ramps to E Street	Sensitive	Major Arterial	50'	45
27	5th Street	E Street to Waterman Avenue	Sensitive	Major Arterial	50'	45
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	Major Arterial	33'	45
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	Major Arterial	33'	45
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	Major Arterial	50'	45
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	Major Arterial	33'	45
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	Major Arterial	50'	45
33	5th Street	Central Avenue to Palm Avenue	Sensitive	Major Arterial	50'	45
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	Major Arterial	50'	45
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	Major Arterial	50'	45
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	Major Arterial	50'	45
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	Major Arterial	50'	45
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	Major Arterial	50'	45
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	Major Arterial	50'	45

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] City of San Bernardino Circulation Project Figure 3-11a and City of Highland Circulation Element Figure 3-12a.
[3] Based upon the right-of-way distances for each roadway classification provided in the General Plan Circulation Element.

Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Traffic Impact Study*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]			
			Existing		Future Build-Out 2040	
			Without Project	With Project	Without Project	With Project
1	Waterman Avenue	Baseline Street to 5th Street	25,741	26,062	28,982	29,303
2	Waterman Avenue	5th Street to 3rd Street	27,528	28,232	31,551	32,255
3	Tippecanoe Avenue	Baseline Street to 6th Street	12,006	13,152	19,291	20,437
4	Tippecanoe Avenue	6th Street to 3rd Street	14,330	19,390	16,328	21,388
5	Tippecanoe Avenue	3rd Street to Mill Street	28,362	38,124	43,928	53,690
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	32,591	42,353	47,921	57,683
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	25,471	35,233	29,159	38,921
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	23,780	26,080	26,238	28,538
9	Del Rosa Drive	Highland Avenue to Pacific Street	17,645	19,945	19,585	21,885
10	Del Rosa Drive	Pacific Street to Baseline Street	12,318	14,618	15,318	17,618
11	Del Rosa Drive	Baseline Street to 9th Street	9,963	16,471	12,139	18,647
12	Del Rosa Drive	9th Street to 6th Street	9,871	16,379	12,294	18,802
13	Del Rosa Drive	6th Street to 3rd Street	9,576	11,560	12,774	14,758
14	Sterling Avenue	Base Line to 9th Street	13,368	16,806	13,433	16,871
15	Sterling Avenue	9th Street to 6th Street	10,609	12,775	14,385	16,551
16	Sterling Avenue	6th Street to 3rd Street	6,984	14,366	11,619	19,001
17	Victoria Avenue	Highland Avenue to Pacific Street	12,184	16,944	26,114	30,874
18	Victoria Avenue	Pacific Street to Base Line	14,431	19,687	17,643	22,899
19	Victoria Avenue	Base Line to 9th Street	11,210	16,466	13,063	18,319
20	Victoria Avenue	9th Street to 6th Street	8,368	13,624	10,302	15,558
21	Victoria Avenue	6th Street to 3rd Street	8,368	9,436	12,525	13,593
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	3,249	4,491	5,359	6,601
23	6th Street	Del Rosa Drive to Sterling Avenue	4,714	7,674	7,501	10,461
24	6th Street	Sterling Avenue to Victoria Avenue	3,519	10,051	8,278	14,810
25	6th Street	Victoria Avenue to Central Avenue	4,047	10,918	5,844	12,715

ID	Roadway	Segment	Average Daily Traffic Volumes[1]			
			Existing		Future Build-Out 2040	
			Without Project	With Project	Without Project	With Project
26	5th Street	I-215 NB Ramps to E Street	30,975	43,371	37,481	49,877
27	5th Street	E Street to Waterman Avenue	20,083	32,479	22,657	35,053
28	5th Street	Waterman Avenue to Tippecanoe Avenue	9,167	22,329	13,621	26,783
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	8,725	23,858	14,297	29,430
30	5th Street	Del Rosa Drive to Sterling Avenue	5,595	26,122	10,664	31,191
31	5th Street	Sterling Avenue to Victoria Avenue	3,911	25,904	8,476	30,469
32	5th Street	Victoria Avenue to Central Avenue	9,939	32,258	11,954	34,273
33	5th Street	Central Avenue to Palm Avenue	9,939	35,031	11,912	37,004
34	5th Street	Palm Avenue to SR-210 EB Ramps	26,098	52,097	33,870	59,869
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	10,460	11,686	13,621	14,847
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	15,620	27,119	19,594	31,093
37	3rd Street	Del Rosa Drive to Sterling Avenue	18,143	28,583	34,523	44,963
38	3rd Street	Sterling Avenue to Victoria Avenue	13,457	19,662	21,178	27,383
39	3rd Street	Victoria Avenue to Palm Avenue	10,714	17,123	18,390	24,799

[1] Traffic Impact Study for the Airport Gateway Specific Plan Project, Kimley-Horn and Associates, Inc.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

[1] Typical Southern California vehicle mix.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: WITHOUT PROJECT VEHICLE MIX

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	97.86%	1.28%	0.86%	100.00%

Based on an existing vehicle count taken at Tippecanoe Avenue and 5th Street (Traffic Impact Study for the Airport Gateway Specific Plan, Kimley-Horn and Associates, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

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7 OFF-SITE TRAFFIC NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on *Airport Gateway Specific Plan Traffic Impact Study*. (20) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area.

Tables 7-1 through 7-4 present a summary of the exterior dBA CNEL traffic noise levels without barrier attenuation. Roadway segments are analyzed from the without Project to the with Project conditions in each of the following timeframes: Existing and Future Build-Out 2040. Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios.

TABLE 7-1: EXISTING WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	69.5	RW	99	214
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	71.4	62	135	290
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	68.3	RW	73	156
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.0	RW	82	176
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	72.8	77	166	359
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	71.8	66	141	304
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	72.4	72	155	334
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.4	53	114	247
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.0	RW	61	132
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	67.5	RW	74	159
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	66.6	RW	64	138
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	66.6	RW	64	137
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	66.4	RW	62	134
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.6	RW	64	138
15	Sterling Avenue	9th Street to 6th Street	Sensitive	65.6	RW	55	119
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	63.8	RW	RW	90
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	67.1	RW	60	130
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	67.8	RW	68	146
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.0	RW	69	149
20	Victoria Avenue	9th Street to 6th Street	Sensitive	66.7	RW	57	123
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	66.7	RW	57	123
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	63.9	RW	RW	55

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	65.5	RW	33	70
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	64.3	RW	RW	58
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	64.9	RW	RW	63
26	5th Street	I-215 NB Ramps to E Street	Sensitive	71.5	63	136	294
27	5th Street	E Street to Waterman Avenue	Sensitive	69.7	RW	102	220
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.8	RW	59	128
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	RW	57	124
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	64.1	RW	RW	94
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	65.1	RW	34	73
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	66.6	RW	64	138
33	5th Street	Central Avenue to Palm Avenue	Sensitive	66.6	RW	64	138
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	70.8	57	122	262
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	66.8	RW	66	143
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	RW	86	186
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	69.2	RW	96	206
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	67.9	RW	78	169
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	66.9	31	67	145

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	69.5	RW	100	216
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	71.6	64	137	295
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	68.7	RW	77	166
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	70.3	46	100	215
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	74.1	94	203	437
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	72.9	78	168	362
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	73.8	89	192	414
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.8	56	122	262
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.6	RW	66	143
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	68.3	RW	83	178
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	68.8	RW	90	193
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	68.8	RW	89	192
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	67.3	RW	71	152
14	Sterling Avenue	Base Line to 9th Street	Sensitive	67.6	RW	75	161
15	Sterling Avenue	9th Street to 6th Street	Sensitive	66.4	RW	62	134
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	66.9	RW	67	145
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	68.5	RW	75	162
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	69.1	RW	83	179
19	Victoria Avenue	Base Line to 9th Street	Sensitive	69.6	RW	90	193
20	Victoria Avenue	9th Street to 6th Street	Sensitive	68.8	RW	79	170
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	67.2	RW	62	133
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	65.3	RW	31	68

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	67.6	RW	45	97
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.8	RW	54	116
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	69.2	RW	57	123
26	5th Street	I-215 NB Ramps to E Street	Sensitive	73.0	79	171	368
27	5th Street	E Street to Waterman Avenue	Sensitive	71.7	65	141	303
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	72.7	50	108	232
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	73.0	52	112	242
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	70.8	57	122	262
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	73.3	55	119	256
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	71.7	65	140	302
33	5th Street	Central Avenue to Palm Avenue	Sensitive	72.1	69	148	319
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	73.8	90	193	416
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	67.3	RW	71	154
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	71.0	58	125	269
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	71.2	60	129	279
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	69.6	RW	101	217
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	69.0	RW	92	198

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: FUTURE BUILD-OUT 2040 WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	70.0	50	108	232
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	72.0	68	147	317
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	70.3	46	99	214
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.6	RW	89	192
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	74.7	103	223	480
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	73.4	85	183	393
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	73.0	79	170	365
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.8	57	122	263
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.5	RW	66	141
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	68.5	RW	85	184
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	67.5	RW	73	157
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	67.5	RW	74	159
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	67.7	RW	76	163
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.7	RW	64	139
15	Sterling Avenue	9th Street to 6th Street	Sensitive	67.0	RW	67	145
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	66.0	RW	59	126
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	70.4	47	100	216
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	68.7	RW	77	167
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.6	RW	77	165
20	Victoria Avenue	9th Street to 6th Street	Sensitive	67.6	RW	65	141
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	68.4	RW	75	161
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	66.1	RW	35	76

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	67.5	RW	44	95
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.0	RW	47	102
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	66.5	RW	38	81
26	5th Street	I-215 NB Ramps to E Street	Sensitive	72.4	72	155	334
27	5th Street	E Street to Waterman Avenue	Sensitive	70.2	51	111	239
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	70.6	36	77	167
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	70.8	37	80	172
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	66.9	RW	67	144
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.5	RW	56	121
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	67.4	RW	72	156
33	5th Street	Central Avenue to Palm Avenue	Sensitive	67.4	RW	72	155
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	71.9	67	145	312
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.0	RW	79	170
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	69.6	RW	101	217
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	72.0	68	147	316
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	69.9	RW	106	228
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	69.3	RW	96	208

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: FUTURE BUILD-OUT 2040 WITH PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	70.0	50	108	234
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	72.1	69	150	322
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	70.6	48	103	223
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	70.8	49	107	230
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	75.6	118	255	549
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	74.2	96	207	445
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	74.2	95	206	443
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	71.2	60	129	278
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	70.0	33	71	152
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	69.1	RW	94	202
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	69.3	RW	97	210
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	69.4	RW	98	211
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	68.3	RW	83	179
14	Sterling Avenue	Base Line to 9th Street	Sensitive	67.6	RW	75	162
15	Sterling Avenue	9th Street to 6th Street	Sensitive	67.6	RW	74	160
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	68.2	RW	81	175
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	71.1	52	112	242
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	69.8	RW	92	198
19	Victoria Avenue	Base Line to 9th Street	Sensitive	70.1	45	96	207
20	Victoria Avenue	9th Street to 6th Street	Sensitive	69.4	RW	86	186
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	68.8	RW	79	170
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	67.0	RW	41	88

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	69.0	RW	55	119
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	70.5	32	70	150
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	69.8	RW	63	136
26	5th Street	I-215 NB Ramps to E Street	Sensitive	73.6	87	187	404
27	5th Street	E Street to Waterman Avenue	Sensitive	72.1	69	148	319
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	73.5	56	121	262
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	73.9	60	129	279
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	71.6	64	137	295
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	74.0	61	132	285
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	72.0	68	146	315
33	5th Street	Central Avenue to Palm Avenue	Sensitive	72.3	71	154	331
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	74.4	98	212	456
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.3	RW	84	180
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	71.6	64	137	295
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	73.2	81	175	377
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	71.0	58	126	271
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	70.6	55	118	254

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in *Airport Gateway Specific Plan Traffic Impact Study*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 63.8 to 72.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 65.3 to 74.1 dBA CNEL. Table 7-5 shows that the Project off-site traffic noise level impacts will range from 0.0 to 8.2 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-2, 28 of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise level increases due to the proposed Project under Existing with Project conditions.

Section 7.4 describes the off-site traffic noise mitigation measures considered in this analysis. All other roadway segments would not experience noise level increases under Existing with Project conditions that would exceed the established thresholds of significance.

7.3 FUTURE BUILD-OUT 2040 WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Future Build-Out 2040 without Project conditions CNEL noise levels. The Future Build-Out 2040 without Project exterior noise levels are expected to range from 66.0 to 74.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the Future Build-Out 2040 with Project conditions will range from 67.0 to 75.6 dBA CNEL. Table 7-6 shows that the Project off-site traffic noise level increases will range from 0.0 to 5.5 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-2, 24 of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise level increases due to the proposed Project under Future Build-Out (2040) with Project conditions.

TABLE 7-5: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	69.5	69.5	0.0	1.0	No
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	71.4	71.6	0.2	1.0	No
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	68.3	68.7	0.4	1.0	No
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.0	70.3	1.3	1.0	Yes
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	72.8	74.1	1.3	1.0	Yes
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	71.8	72.9	1.1	1.0	Yes
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	72.4	73.8	1.4	1.0	Yes
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.4	70.8	0.4	1.0	No
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.0	69.6	0.6	1.0	No
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	67.5	68.3	0.8	1.0	No
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	66.6	68.8	2.2	1.0	Yes
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	66.6	68.8	2.2	1.0	Yes
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	66.4	67.3	0.9	1.0	No
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.6	67.6	1.0	1.0	Yes
15	Sterling Avenue	9th Street to 6th Street	Sensitive	65.6	66.4	0.8	1.0	No
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	63.8	66.9	3.1	2.0	Yes
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	67.1	68.5	1.4	1.0	Yes
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	67.8	69.1	1.3	1.0	Yes
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.0	69.6	1.6	1.0	Yes
20	Victoria Avenue	9th Street to 6th Street	Sensitive	66.7	68.8	2.1	1.0	Yes
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	66.7	67.2	0.5	1.0	No

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	63.9	65.3	1.4	2.0	No
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	65.5	67.6	2.1	1.0	Yes
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	64.3	68.8	4.5	2.0	Yes
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	64.9	69.2	4.3	2.0	Yes
26	5th Street	I-215 NB Ramps to E Street	Sensitive	71.5	73.0	1.5	1.0	Yes
27	5th Street	E Street to Waterman Avenue	Sensitive	69.7	71.7	2.0	1.0	Yes
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.8	72.7	3.9	1.0	Yes
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	73.0	4.4	1.0	Yes
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	64.1	70.8	6.7	2.0	Yes
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	65.1	73.3	8.2	1.0	Yes
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	66.6	71.7	5.1	1.0	Yes
33	5th Street	Central Avenue to Palm Avenue	Sensitive	66.6	72.1	5.5	1.0	Yes
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	70.8	73.8	3.0	1.0	Yes
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	66.8	67.3	0.5	1.0	No
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	71.0	2.4	1.0	Yes
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	69.2	71.2	2.0	1.0	Yes
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	67.9	69.6	1.7	1.0	Yes
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	66.9	69.0	2.1	1.0	Yes

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-2)?

TABLE 7-6: FUTURE BUILD-OUT 2040 WITH PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	70.0	70.0	0.0	1.0	No
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	72.0	72.1	0.1	1.0	No
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	70.3	70.6	0.3	1.0	No
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.6	70.8	1.2	1.0	Yes
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	74.7	75.6	0.9	1.0	No
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	73.4	74.2	0.8	1.0	No
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	73.0	74.2	1.2	1.0	Yes
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.8	71.2	0.4	1.0	No
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.5	70.0	0.5	1.0	No
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	68.5	69.1	0.6	1.0	No
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	67.5	69.3	1.8	1.0	Yes
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	67.5	69.4	1.9	1.0	Yes
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	67.7	68.3	0.6	1.0	No
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.7	67.6	0.9	1.0	No
15	Sterling Avenue	9th Street to 6th Street	Sensitive	67.0	67.6	0.6	1.0	No
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	66.0	68.2	2.2	1.0	Yes
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	70.4	71.1	0.7	1.0	No
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	68.7	69.8	1.1	1.0	Yes
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.6	70.1	1.5	1.0	Yes
20	Victoria Avenue	9th Street to 6th Street	Sensitive	67.6	69.4	1.8	1.0	Yes
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	68.4	68.8	0.4	1.0	No
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	66.1	67.0	0.9	1.0	No

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	67.5	69.0	1.5	1.0	Yes
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.0	70.5	2.5	1.0	Yes
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	66.5	69.8	3.3	1.0	Yes
26	5th Street	I-215 NB Ramps to E Street	Sensitive	72.4	73.6	1.2	1.0	Yes
27	5th Street	E Street to Waterman Avenue	Sensitive	70.2	72.1	1.9	1.0	Yes
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	70.6	73.5	2.9	1.0	Yes
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	70.8	73.9	3.1	1.0	Yes
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	66.9	71.6	4.7	1.0	Yes
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.5	74.0	5.5	1.0	Yes
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	67.4	72.0	4.6	1.0	Yes
33	5th Street	Central Avenue to Palm Avenue	Sensitive	67.4	72.3	4.9	1.0	Yes
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	71.9	74.4	2.5	1.0	Yes
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.0	68.3	0.3	1.0	No
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	69.6	71.6	2.0	1.0	Yes
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	72.0	73.2	1.2	1.0	Yes
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	69.9	71.0	1.1	1.0	Yes
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	69.3	70.6	1.3	1.0	Yes

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-2)?

7.4 OFF-SITE TRAFFIC NOISE MITIGATION

To reduce the *potentially significant* Project traffic noise level increases on the 28 study area roadway segments for Existing plus Project, and on the 24 study area roadway segments for Future Build-Out with Project conditions, potential noise mitigation measures are identified in this analysis. Potential mitigation measures discussed below include rubberized asphalt hot mix pavement and off-site noise barriers for the existing residential land uses adjacent to impacted roadway segments.

7.4.1 RUBBERIZED ASPHALT

Due to the potential noise attenuation benefits, rubberized asphalt is considered as a mitigation measure for the off-site Project-related traffic noise level increases. To reduce traffic noise levels at the noise source, Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile traffic noise levels. (21) Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobiles noise, as much as 75 to 90-percent of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher and constant speeds. (2) According to research conducted by Caltrans (21) and the Canadian Ministry of Transportation and Highways (22) a 4 dBA reduction in tire/pavement noise is attainable using rubberized asphalt under typical operating conditions.

The effectiveness of reducing traffic noise levels is higher on roadways with low percentages of heavy trucks, since the heavy truck engine and exhaust noise is not affected by rubberized alternative pavement due to the truck engine and exhaust stack height above the pavement itself. (21) Per Caltrans guidance a truck stack height is modeled using a height of 11.5 feet above the road. (4) (23) With the primary off-site traffic noise source consisting of heavy trucks with a stack height of 11.5 feet off the ground, the tire/pavement noise reduction benefits associated rubberized asphalt will be primarily limited to autos.

While the off-site Project-related traffic noise level increases would theoretically be reduced with the 4 dBA reduction provided by rubberized asphalt, the reduction would not provide reliable benefits for the noise levels generated by heavy truck traffic. This is, as previously stated, due to the noise source height difference between automobiles and trucks. While rubberized asphalt will provide some noise reduction, this noise study recognizes that this is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks to less than significant levels. Since the use of rubberized asphalt would not lower the off-site traffic noise levels below a level of significance, rubberized asphalt is not proposed as mitigation for the Project and the off-site Project-related traffic noise level increases at adjacent land uses would remain *significant.*

7.4.2 OFF-SITE NOISE BARRIERS

Since existing and future noise-sensitive receiving land uses are located adjacent to the impacted roadway segments in the Project study area, off-site noise barriers were considered in this analysis as a potential traffic noise mitigation measure to reduce the impacts. Off-site noise barriers are estimated to provide a *readily perceptible* 5 dBA reduction which, according to the FHWA, is *simple* to attain when blocking the line-of-sight from the noise source to the receiver. (4) As previously discussed, Caltrans guidance in the Highway Design Manual, Section 1102.3(3), indicates that for design purposes, *the noise barrier should intercept the line of sight from the exhaust stack of a truck to the receptor*, and an 11.5-foot-high truck stack height is assumed to represent the truck engine and exhaust noise source. (23) Therefore, any exterior noise barriers at receiving noise sensitive land uses experiencing Project-related traffic noise level increases would need to be high enough and long enough to block the line-of-sight from the noise source (at 11.5 feet high per Caltrans) to the receiver (at 5 feet high per FHWA guidance) in order to provide a 5 dBA reduction per FHWA guidance. (23)

In addition, according to FHWA guidance, outdoor living areas are generally limited to outdoor living areas of frequent human use (e.g., backyards of single-family homes). Therefore, front and side yards of residential homes adjacent to off-site roadway segments do not represent noise sensitive areas of frequent human use that require exterior noise mitigation. (4) Exterior noise mitigation in the form of noise barriers is not anticipated to provide the FHWA attainable reduction of 5 dBA required to reduce the off-site traffic noise level increases and would also require potential openings for driveway access to individual residential lots fronting the road. As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance, and therefore, noise barriers are not proposed as mitigation for the Project.

7.4.3 SIGNIFICANT OFF-SITE TRAFFIC NOISE IMPACTS

Both rubberized asphalt and off-site noise barriers are considered as potential noise mitigation measures to reduce the *potentially significant* off-site traffic noise level increases shown on Tables 7-5 and 7-6. However, neither form of mitigation would eliminate the off-site traffic noise level increases at the adjacent land uses to the impacted roadway segments. Therefore, the Project-related off-site traffic noise level increases at adjacent noise-sensitive land are considered a *significant and unavoidable* impact.

8 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, eight receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

R1: Location R1 represents the existing noise sensitive residence at 7886 Fairfax Lane, approximately 74 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive residence at 25498 6th Street, approximately 84 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing noise sensitive residence at 26188 6th Street, approximately 98 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R3 is placed at the residential building façade. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment.

R4: Location R4 represents the existing noise sensitive residence at 26740 6th Street, approximately 31 feet south of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R4 is placed at the residential building

façade. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment.

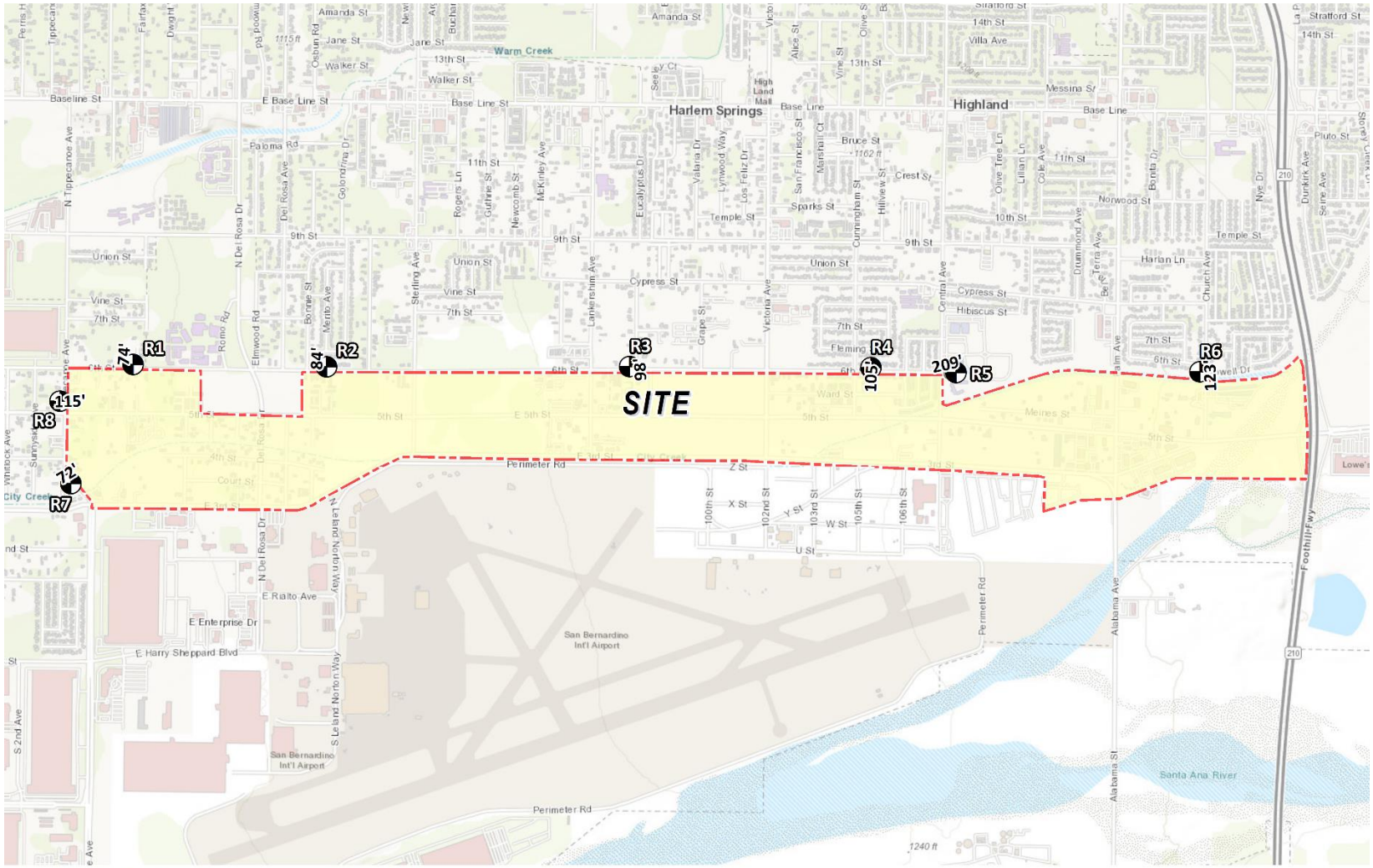
R5: Location R5 represents the Highland Branch Library at 7863 Central Avenue, approximately 209 feet northeast of the Project site. Receiver R5 is placed at the building façade. A 24-hour noise measurement near this location, L5, is used to describe the existing ambient noise environment.

R6: Location R6 represents the existing noise sensitive residence at 27487 E 6th Street, approximately 123 feet north of the Project site. R6 is placed at the private outdoor living area (backyard) facing the Project site. A 24-hour noise measurement near this location, L6, is used to describe the existing ambient noise environment.

R7: Location R6 represents the Trinity Christian Fellowship Church at 8174 Tippecanoe Avenue, approximately 72 feet southwest of the Project site. R7 is placed at the building façade. A 24-hour noise measurement near this location, L7 is used to describe the existing ambient noise environment.

R8: Location R8 represents the existing noise sensitive residence at 7976 Tippecanoe Avenue, approximately 115 feet west of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R8 is placed at the residential building façade. A 24-hour noise measurement near this location, L8, is used to describe the existing ambient noise environment.

EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS



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9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the AGSP.

9.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the typical daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. The on-site Project-related noise sources are expected to include loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity.

9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity all operating continuously. These sources of noise activity will likely vary throughout the day.

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precisions sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (16)

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source[1]	Noise Source Height (Feet)	Min./Hour[2]		Reference Noise Level @50 feet (dBA L_{eq})	Sound Power Level (dBA)[3]
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Delivery Van Activity	5'	60	60	61.4	101.2
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	20	20	56.8	89.0
Parking Lot Activity	5'	60	60	55.5	79.9

[1] As measured by Urban Crossroads, Inc.
[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.
[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical operational noise activities associated with the Project. This includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, unloading/loading, docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. To describe the loading dock activities for cold storage, a reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA L_{eq} at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked. Noise associated with parking lot vehicle movements is expected 24 hours per day.

9.2.3 DELIVERY VAN ACTIVITY

To describe the delivery van activity, Urban Crossroads, collected reference noise level measurements from a delivery service partner. The delivery service partner maintains over 50 delivery vans and supporting operations. The reference noise level measurements suggest that at the center of activity the delivery vans generate a noise level of 61.4 dBA L_{eq} at a reference distance of 50 feet. The delivery van activities are limited to the daytime hours with no deliveries during the noise sensitive nighttime hours.

9.2.4 ROOF-TOP AIR CONDITIONING UNITS

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for an average of 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. For this noise analysis, the air conditioning units are expected to be located on the roof of the proposed building. This reference noise level describes the expected roof-top air conditioning units located 5 feet above the roof for the planned air conditioning units at the Development Site.

9.2.5 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 56.8 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building. Typical trash enclosure activities are estimated to occur for 20 minutes per hour.

9.2.6 PARKING LOT ACTIVITY

To determine the noise levels associated with parking lot vehicle movements, Urban Crossroads collected reference noise level measurements at an existing warehouse parking lot. The reference noise level at 50 feet from parking lot vehicle movements was measured at 55.5 dBA L_{eq}. The parking lot noise levels are mainly due to employee shift changes with cars pulling in and out of spaces during peak lunch hour activity and employees talking. Noise associated with parking lot vehicle movements is expected 24 hours per day.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613 protocol, the CadnaA noise prediction model relies on the reference sound power level (Lw) to describe individual noise sources. While sound pressure levels (e.g. L_{eq})

quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (Lw) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish from intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces consistent with study area conditions. Appendix 9.1 includes the detailed noise model inputs.

9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity, Urban Crossroads, Inc. calculated the unmitigated operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. The hourly Project operational noise levels at the off-site receiver locations are expected to range from 60.9 to 62.9 dBA L_{eq}.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the exterior noise level standards at nearest noise-sensitive receiver locations. Table 9-2 shows the operational noise levels associated with AGSP will satisfy the 65 dBA L_{eq} exterior noise level standards at the nearest receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.

9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels.

TABLE 9-2: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Noise Level (dBA Leq)[2]	Noise Level Standards (dBA Leq)[3]	Noise Level Standards Exceeded?[4]
R1	62.9	65	No
R2	62.7	65	No
R3	62.7	65	No
R4	62.5	65	No
R5	60.9	65	No
R6	62.2	65	No
R7	62.5	65	No
R8	61.5	65	No

[1] See Exhibit 8-A for the receiver locations.
[2] Project CadnaA operational noise level calculations are included in Appendix 9.1.
[3] Exterior noise level standards as shown on Table 4-1.
[4] Do the estimated Project operational noise source activities exceed the noise level standards?

The difference between the combined Project and ambient noise levels describe the Project noise level increases to the existing ambient noise environment. As indicated on Tables 9-3 and 9-4, the Project will generate daytime and nighttime operational noise level increases ranging from 0.9 to 12.7 dBA L_{eq} at the nearest receiver locations. Therefore, the unmitigated Project operational incremental noise level increase is considered *potentially significant*.

9.7 OPERATIONAL NOISE ABATEMENT MEASURES

To reduce potential operational noise levels increases at the nearby noise-sensitive receiver locations, the AGSP shall include the following operational noise mitigation measures:

- The AGSP shall be designed to minimize the potential noise exposure to nearby noise sensitive land uses including:
    - locating driveways and vehicle access points away from noise sensitive uses.
    - locating loading docks away from adjacent noise sensitive uses.
    - minimize the use of outside speakers and amplifiers.
    - incorporate walls landscaping and other noise buffers and barriers between uses, as appropriate.
- Sound barrier walls or earth berms of sufficient height and length shall be provided to reduce exterior noise levels to 65 CNEL or lower at nearby noise sensitive uses. Prior to the issuance of grading permits, an acoustical analysis report shall be prepared by a qualified acoustical consultant. The report shall specify the noise barriers' height, location, and types capable of achieving the desired mitigation affect.

- All on-site operating equipment that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers.
- Maintain quality pavement conditions on the property that are free of vertical deflection (i.e. speed bumps) to minimize truck noise.
- The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:
    - Truck drivers shall turn off engines when not in use;
    - Diesel trucks servicing the Project shall not idle for more than five (5) minutes; and
    - Post telephone numbers of the building facilities manager to report idling violations.

With the implementation of the recommended operational noise mitigation measures, the incremental noise level increase will be reduced to less than significant.

TABLE 9-3: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Noise Sensitive Land Use?	Increase Criteria[7]	Increase Criteria Exceeded?
R1	62.9	L1	57.7	64.0	6.3	Yes	3.0	Yes
R2	62.7	L2	64.2	66.5	2.3	Yes	3.0	No
R3	62.7	L3	60.5	64.7	4.2	Yes	3.0	Yes
R4	62.5	L4	61.4	65.0	3.6	Yes	3.0	Yes
R5	60.9	L5	51.9	61.4	9.5	Yes	5.0	Yes
R6	62.2	L6	58.5	63.7	5.2	Yes	5.0	Yes
R7	62.5	L7	70.6	71.2	0.6	Yes	1.5	No
R8	61.5	L8	64.4	66.2	1.8	Yes	3.0	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project operational noise levels as shown on Table 9-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-2.

TABLE 9-4: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Noise Sensitive Land Use?	Increase Criteria[7]	Increase Criteria Exceeded?
R1	62.9	L1	54.9	63.5	8.6	Yes	5.0	Yes
R2	62.7	L2	59.1	64.3	5.2	Yes	3.0	Yes
R3	62.7	L3	57.2	63.8	6.6	Yes	3.0	Yes
R4	62.5	L4	58.6	64.0	5.4	Yes	3.0	Yes
R5	60.9	L5	48.4	61.1	12.7	Yes	5.0	Yes
R6	62.2	L6	57.1	63.4	6.3	Yes	3.0	Yes
R7	62.5	L7	68.8	69.7	0.9	Yes	1.0	No
R8	61.5	L8	61.6	64.6	3.0	Yes	2.0	Yes

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project operational noise levels as shown on Table 9-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-2.

10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibits 10-A and 10-B show the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 8.

10.1 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators operating simultaneously that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving/Landscaping
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver.

10.2 TYPICAL CONSTRUCTION REFERENCE NOISE LEVELS

To describe the Project typical construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the construction reference noise level measurements. Since the reference noise levels were collected at varying distances of 30 feet and 50 feet, all construction noise level measurements presented on Table 10-1 have been adjusted for consistency to describe a uniform reference distance of 50 feet.

EXHIBIT 10-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS

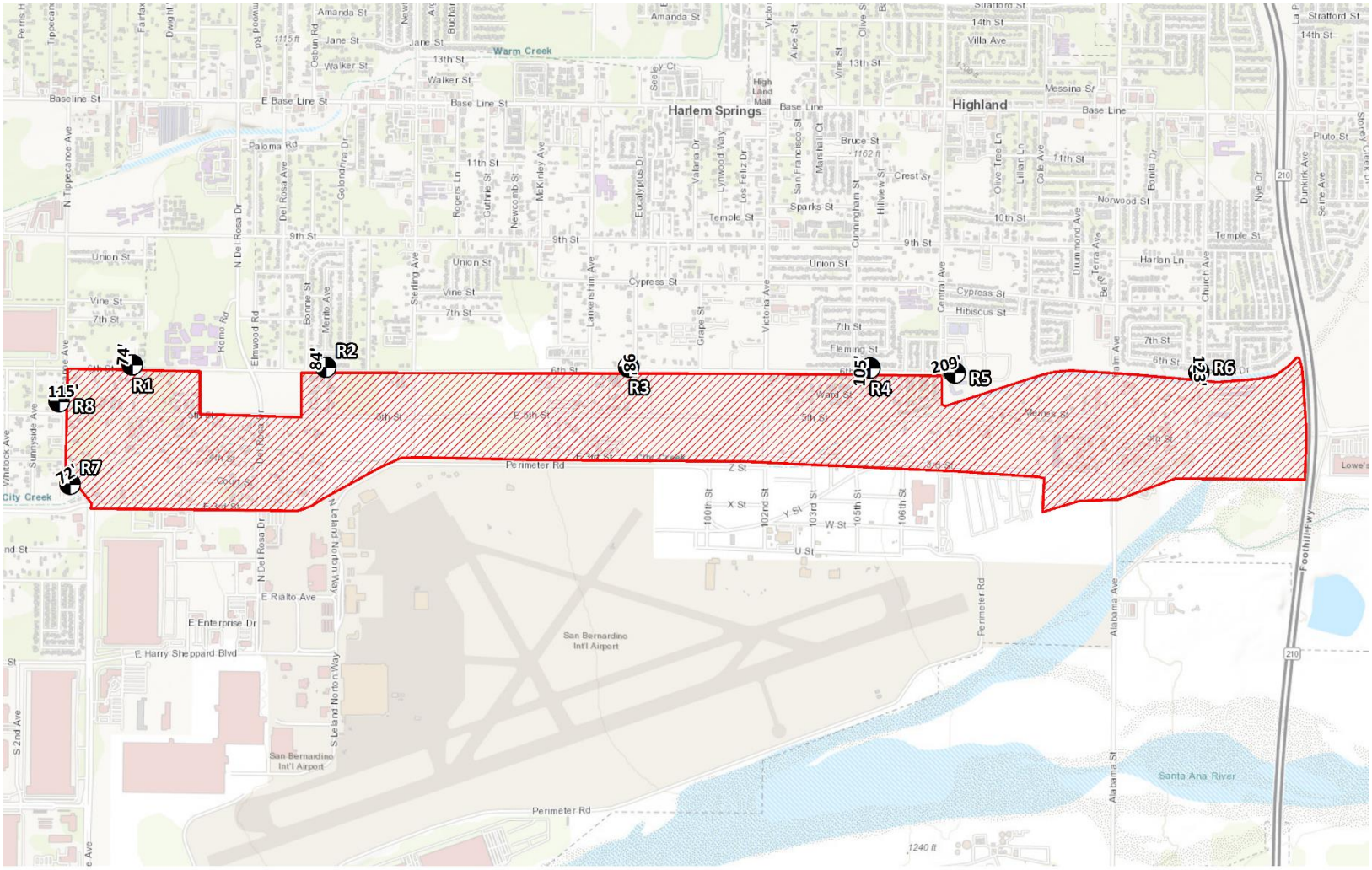


TABLE 10-1: TYPICAL CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Highest Reference Noise Level (dBA L_{eq})
Demolition	Demolition Activity	67.9	71.9
	Backhoe	64.2	
	Water Truck Pass-By & Backup Alarm	71.9	
Site Preparation	Scraper, Water Truck, & Dozer Activity	75.3	75.3
	Backhoe	64.2	
	Water Truck Pass-By & Backup Alarm	71.9	
Grading	Rough Grading Activities	73.5	73.5
	Water Truck Pass-By & Backup Alarm	71.9	
	Construction Vehicle Maintenance Activities	67.5	
Building Construction	Foundation Trenching	68.2	71.6
	Framing	62.3	
	Concrete Mixer Backup Alarms & Air Brakes	71.6	
Paving/ Landscaping	Concrete Mixer Truck Movements	71.2	71.2
	Concrete Paver Activities	65.6	
	Concrete Mixer Pour & Paving Activities	65.9	
Architectural Coating	Air Compressors	65.2	65.2
	Generator	64.9	
	Crane	62.3	

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc.

10.3 TYPICAL CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts with multiple pieces of equipment operating simultaneously at the nearest sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project Site boundary) to each receiver location. As shown on Table 10-2, the construction noise levels are expected to range from 60.4 to 72.5 dBA L_{eq}, and the highest construction levels are expected to range from 70.5 to 72.5 dBA L_{eq} at the nearest receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

TABLE 10-2: TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})						
	Demolition	Site Preparation	Grading	Building Construction	Paving/ Landscaping	Architectural Coating	Highest Levels[2]
R1	69.1	72.5	70.7	68.8	68.4	62.4	72.5
R2	68.8	72.2	70.4	68.5	68.1	62.1	72.2
R3	68.8	72.2	70.4	68.5	68.1	62.1	72.2
R4	68.7	72.1	70.3	68.4	68.0	62.0	72.1
R5	67.1	70.5	68.7	66.8	66.4	60.4	70.5
R6	68.4	71.8	70.0	68.1	67.7	61.7	71.8
R7	68.7	72.1	70.3	68.4	68.0	62.0	72.1
R8	67.7	71.1	69.3	67.4	67.0	61.0	71.1

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 TYPICAL CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 10-3. Therefore, the noise impacts due to Project construction noise is considered *less than significant* at all nearest receiver locations.

TABLE 10-3: TYPICAL CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	72.5	80	No
R2	72.2	80	No
R3	72.2	80	No
R4	72.1	80	No
R5	70.5	80	No
R6	71.8	80	No
R7	72.1	80	No
R8	71.1	80	No

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 10-2.
[3] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.6 TYPICAL CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-4. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 10-4: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-5 presents the expected Project related typical construction activity vibration levels at each of the receiver locations. At distances ranging from 72 to 209 feet from Project construction activity, the transient construction vibration velocity levels are estimated to range from 0.004 to 0.018 PPV in/sec, as shown on Table 10-5. Based on maximum acceptable transient vibration threshold of 1.0 PPV (in/sec) for new residential structures, the typical Project construction vibration levels will satisfy the building damage thresholds at all the nearest receiver locations.

In addition, the construction vibration analysis on Table 10-5 shows that the vibration levels will satisfy the *barely perceptible* maximum transient vibration human annoyance threshold of 0.04 PPV (in/sec) at all the nearest receiver locations. Therefore, the vibration impacts due to the typical Project construction activities are considered *less than significant*. In addition, the typical construction vibration levels at the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site boundaries.

TABLE 10-5: TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver[1]	Structure Type[2]	Distance to Const. Activity (Feet)[3]	Typical Construction Vibration Levels PPV (in/sec)[4]					Thresholds PPV (in/sec)[5]		Thresholds Exceeded?[6]	
			Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Highest Vibration Level	Building Damage	Human Annoyance	Building Damage	Human Annoyance
R1	Residential	74'	0.001	0.007	0.015	0.017	0.017	1.00	0.04	No	No
R2	Residential	84'	0.000	0.006	0.012	0.014	0.014	1.00	0.04	No	No
R3	Residential	98'	0.000	0.005	0.010	0.011	0.011	1.00	0.04	No	No
R4	Residential	105'	0.000	0.004	0.009	0.010	0.010	1.00	0.04	No	No
R5	Library	209'	0.000	0.001	0.003	0.004	0.004	1.00	0.04	No	No
R6	Residential	123'	0.000	0.003	0.007	0.008	0.008	1.00	0.04	No	No
R7	Church	72'	0.001	0.007	0.016	0.018	0.018	1.00	0.04	No	No
R8	Residential	115'	0.000	0.004	0.008	0.009	0.009	1.00	0.04	No	No

[1] Receiver locations are shown on Exhibit 8-A.
[2] Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19, p. 38.
[3] Distance from receiver location to Project construction boundary.
[4] Based on the Vibration Source Levels of Construction Equipment (Table 10-4).
[5] Thresholds for transient sources associated with typical construction activities, Caltrans Transportation and Construction Vibration Manual, April 2020 p.38. (see Tables 3-2 & 3-3).
[6] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

11 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2018.
2. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
3. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
4. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.
5. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
6. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
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8. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2017.
9. **State of California.** *2016 California Green Building Standards Code.* August 2019 Supplement.
10. **City of San Bernardino.** *General Plan, Noise Element.* November 2005.
11. —. *Development Code, Title 19, Article III, Chapter 19.20 - Property Development Standards.*
12. —. *Municipal Code, Title 8, Section 8.54 - Noise Control.*
13. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
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15. **California Court of Appeal.** *King and Gardiner Farms, LLC v. County of Kern (2020) .* 45 Cal.App.5th 814, 893,
16. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
17. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.
18. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
19. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
20. **Kimley-Horn and Associates, Inc.** *Traffic Impact Study for the Airport Gateway Specific Plan Project .* November 2020.

21. **California Department of Transportation Environmental Program.** *I-80 Davis OGAC Pavement Noise Study.* September 2001.

22. **Canadian Ministry of Transportation and Highways, Highway Environment Branch.** *Open-Graded Asphalt 'Quiet Pavement' - Assessment of Traffic Noise Reduction Performance.* November 1995.

23. **California Department of Transportation.** *Highway Design Manual, Chapter 1100 Highway Traffic Noise Abatement.* November 2017.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Airport Gateway Specific Plan Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.



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EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF SAN BERNARDINO MUNICIPAL CODE

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CHAPTER 19.20
PROPERTY DEVELOPMENT STANDARDS

Sections:

19.20.010 Purpose
19.20.020 Applicability
19.20.030 General Standards

Tables:

20.01 Fences and Walls Height and Type Limits

19.20.010 Purpose

These standards shall ensure that new or modified uses and development will produce an urban environment of stable, desirable character which is harmonious with the existing and future development, consistent with the General Plan.

19.20.020 Applicability

Any permit which authorizes new construction or modifications to an existing structure in excess of 25% of the structure floor area shall be subject to the standards set forth in this Chapter.

19.20.030 General Standards

No permit shall be approved unless it conforms to all of the following standards set forth in this Chapter:

1. Access
2. Additional Structural Setback Restirictions
3. Antennae, Satellite Dishes and Telecommunications Facilities
4. Design Considerations
5. Dust and Dirt
6. Environmental Resources/Constraints
7. Exterior Building/Structure Walls

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14. LIGHTING

Exterior lighting shall be energy-efficient and shielded or recessed so that direct glare and reflections are contained within the boundaries of the parcel, and shall be directed downward and away from adjoining properties and public rights-of-way. No lighting shall blink, flash, or be of unusually high intensity or brightness. All lighting fixtures shall be appropriate in scale, intensity, and height to the use it is serving. Security lighting shall be provided at all entrances/exits.

15. NOISE

No loudspeaker, bells, gongs, buzzers, mechanical equipment or other sounds, attention-attracting, or communication device associated with any use shall be discernible beyond any boundary line of the parcel, except fire protection devices, burglar alarms and church bells. The following provisions shall apply:

A. In residential areas, no exterior noise level shall exceed 65dBA and no interior noise level shall exceed 45dBA.

B. All residential developments shall incorporate the following standards to mitigate noise levels:

1. Increase the distance between the noise source and receiver.

2. Locate land uses not sensitive to noise (i.e., parking lots, garages, maintenance facilities, utility areas, etc.) between the noise source and the receiver.

3. Bedrooms should be located on the side of the structure away from major rights-of-way.

4. Quiet outdoor spaces may be provided next to a noisy right-of-way by creating a U-shaped development which faces away from the right-of-way.

C. The minimum acceptable surface weight for a noise barrier is four pounds per square foot (equivalent to ¾-inch plywood). The barrier shall be of a continuous material which is resistant to sound including:

1. Masonry block

2. Precast concrete

3. Earth berm or a combination of earth berm with block concrete.

D. Noise barriers shall interrupt the line-of-sight between noise source and receiver.

16. ODOR

No use shall emit any obnoxious odor or fumes.

17. PROJECTIONS/CONSTRUCTION AND EQUIPMENT PERMITTED INTO SETBACKS

The following list represents the only projections, construction, or equipment that shall be permitted within the required setbacks:

A. Front Setback: Roof overhangs, fireplace chimney, awnings & canopies

B. Rear Setback: Roof overhangs, pools, patio covers, tennis courts, gazebos, and awnings & canopies, provided there is no projection within 10 feet of the property line. Accessory structures may be built to the interior side or rear property lines provided that such structures are not closer than 10 feet to any other structures.

(Ord. MC-876, 6-09-93)

C. Side Setback: Roof overhangs, fireplace chimney, awnings & canopies

Building Code requirements may further restrict the distance required to be maintained from the property lines and other structures.

28. VIBRATION

No vibration associated with any use shall be permitted which is discernible beyond the boundary line of the property.

Chapter 8.54
NOISE CONTROL

Sections:

8.54.010 Purpose and Intent
8.54.020 Prohibited Acts
8.54.030 Issuance of Written Notice and Impoundment
8.54.040 Cost Recovery for Second Response
8.54.050 Controlled Hours of Operation
8.54.060 Exemptions
8.54.070 Disturbances From Construction Activity
8.54.080 Violation - Penalty
8.54.090 Severability

8.54.010 Purpose and Intent

A. It is the purpose and intent of these regulations to establish community-wide noise standards. It is further the purpose of these regulations to recognize that the existence of excessive noise within the City is a condition which is detrimental to the health, safety, welfare, and quality of life of the citizens and shall be regulated in the public interest.

B. In furtherance of the foregoing purpose, it is found and declared as follows:

1. The making, creation, or maintenance of such loud, unnecessary, unnatural, or unusual noises that are prolonged, unusual, annoying, disturbing and unnatural in their time, place, and use are a detriment to public health, comfort, convenience, safety, general welfare, and the peace and quiet of the City and its inhabitants; and

2. The public interest and necessity of the provisions and prohibitions hereinafter contained and enacted is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuance of, and for the purpose of, securing and promoting the public health, comfort, convenience, safety, general welfare and property, and the peace and quiet of the City and its inhabitants.

(Ord. MC-1246, 5-23-07; Ord. 1925, 11-06-51)

8.54.020 Prohibited Acts

It shall be unlawful for any person to engage in the following activities:

A. Sounding any horn or signal device on any automobile, motorcycle, bus, or other motor vehicle in any other manner or circumstances or for any other purpose than required or permitted by the California Vehicle Code, or other laws, for an unnecessary or unreasonable period of time;

B. Racing the engine of any motor vehicle while the vehicle is not in motion, except when necessary to do so in the course of repairing, adjusting, or testing the same.

C. Operating or permitting the use of any motor vehicle on any public right-of-way or public place or on private property within a residential zone for which the exhaust muffler, intake muffler, or any other noise abatement device has been modified or changed in a manner such that the noise emitted by the motor vehicle is increased above that emitted by the vehicle as originally manufactured.

D. Using, operating, or permitting to be played, used or operated any radio receiving set, musical instrument, phonograph, or other sound amplification or production equipment for producing or reproducing sound in such a manner as to disturb the peace, quiet, or comfort of neighboring persons, or at any time with louder volume than is necessary for the convenient hearing of the person or persons who are in the room, vehicle, or other enclosure in which such machine or device is operated, and who are voluntary listeners thereto and that is:

    1. Plainly audible across property boundaries;

    2. Plainly audible through partitions common to two residences within a building;

    3. Plainly audible at a distance of 50 feet in any direction from the source of the music or sound between the hours of 8:00 a.m. and 10:00 p.m.; or

    4. Plainly audible at a distance of 25 feet in any direction from the source of the music or sound between the hours of 10:00 p.m. and 8:00 a.m.

E. The intentional sounding or permitting the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or any motor vehicle burglar alarm, except for emergency purposes or for testing, unless such alarm is terminated within fifteen minutes of activation.

F. Yelling, shouting, whistling, or singing in a loud and boisterous manner on the public streets so as to disturb the quiet, comfort, or repose of persons in any office, dwelling, hotel, or other type of residence, or neighborhood.

G. The keeping of any animal, fowl, or bird which by causing frequent or long continued noise disturbs the comfort, quiet, or repose of any person or neighborhood.

H. The unnecessary or excessive blowing of whistles, sounding of horns, ringing of bells, or use of signaling devices by operators of trains, motor trucks, and other transportation equipment.

I. The creation of loud and excessive noise in connection with the loading or unloading of motor trucks and other vehicles.

J. The shouting and crying of peddlers, hawkers, and vendors which disturbs the peace and quiet of any considerable number of persons or neighborhood.

K. The doing of automobile, automotive body or fender repair work, or other work on metal objects and metal parts in a residential district so as to cause loud and excessive noise which disturbs the peace, quiet, and repose of any person occupying adjoining or closely situated property or neighborhood.

L. The operation or use between the hours of 10:00 p.m. and 8:00 a.m. of any pile driver, steam shovel, pneumatic hammers, derrick, steam or electric hoist, power driven saw, or any other tool or apparatus, the use of which is attended by loud and excessive noise, except with the approval of the City.

M. Creating excessive noise adjacent to any school, church, court, or library while the same is in use, or adjacent to any hospital or care facility, which unreasonably interferes with the workings of such institution, or which disturbs or unduly annoys patients in the hospital, provided conspicuous signs are displayed in such streets indicating the presence of a school, institution of learning, church, court, or hospital.

N. Making or knowingly and unreasonably permitting to be made any unreasonably loud, unnecessary, or unusual noise that disturbs the comfort, repose, health, peace and quiet, or which causes discomfort or annoyance to any reasonable person of normal sensitivity. The characteristics and conditions that may be considered in determining whether this section has been violated include, but are not limited to, the following:

1. The level of noise;

2. The level of background noise;

3. The proximity of the noise to sleeping facilities;

4. The nature and zoning of the areas within which the noise emanates;

5. The density of the inhabitation of the area within which the noise emanates;

6. The time of day or night the noise occurs;

7. The duration of the noise;

8. Whether the noise is recurrent, intermittent, or constant; and

9. Whether the noise is produced by a commercial or noncommercial activity.

(Ord. MC-1246, 5-23-07; Ord. 2102, 4-03-56; Ord. 1925, 11-06-51)

8.54.030 Issuance of Written Notice and Impoundment

A. Any officer who encounters a violation of this section may issue a written notice to the Responsible Person demanding immediate abatement of the violation. The written notice shall inform the recipient that a second violation of the same provision within a seventy two (72) hour period may result in the issuance of a criminal citation, the imposition of criminal and civil penalties, and confiscation and impoundment, as evidence, of the components that are amplifying or transmitting the prohibited noise.

1. Responsible Person means (a) any person who owns, leases, or is lawfully in charge of the property or motor vehicle where the noise violation takes place, or (b) any person who owns or controls the source of the noise or violation. If the Responsible Person is a minor, then the parent or guardian who has custody of the child at the time of the violation shall be the Responsible Person who is liable under this chapter.

B. Any officer who encounters a second violation of this chapter within a seventy two (72) hour period following the issuance of a written notice is empowered to confiscate and impound, as evidence, any or all of the components amplifying or transmitting the sound. The immediate confiscation of a motor vehicle to which a component is attached may be made if the same may not be removed without causing harm to the vehicle or component.

C. Any person claiming legal ownership of the items confiscated and impounded under this chapter may request the return of the item by filing a written request with the police department within seven (7) calendar days of the confiscation. Such requests shall be processed in accordance with the procedures adopted by the department.

(Ord. MC-1246, 5-23-07; Ord. MC-649, 1-04-89; Ord. 1925, 11-06-51)

8.54.040 Cost Recovery for Second Response

A. Whenever any officer issues a written notice to a responsible person to discontinue a noise violation, the Responsible Person shall be liable for the actual cost of each subsequent response required to abate the violation within seventy two (72) hours of the issuance of the written warning.

B. The bill for the response charge shall be served upon the Responsible Person within thirty (30) days after the violation. If the Responsible Person has no last known business or residence address, the location of the violation shall be deemed to be the proper address for service. The bill shall include a notice of the right of the person being charged to request a hearing to dispute the imposition of the response charge or the amount of the charge.

C. The response charge shall be deemed to be a civil debt to the City.

(Ord. MC-1246, 5-23-07; Ord. MC-460, 5-15-85; Ord. 1925, 11-06-51)

8.54.050 Controlled Hours of Operation

It shall be unlawful for any person to engage in the following activities other than between the hours of 8:00 a.m. and 8:00 p.m. in residential zones and other than between the hours of 7:00 a.m. and 8:00 p.m. in all other zones:

A. Operate or permit the use of powered model vehicles and planes.

B. Load or unload any vehicle, or operate or permit the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous, or unnecessary noise within one thousand (1,000) feet of a residence.

C. Operate or permit the use of domestic power tools, or machinery or any other equipment or tool in any garage, workshop, house, or any other structure.

D. Operate or permit the use of gasoline or electric powered leaf blowers, such as commonly used by gardeners and other persons for cleaning lawns, yards, driveways, gutters, and other property.

E. Operate or permit the use of privately operated street/parking lot sweepers or vacuums, except that emergency work and/or work necessitated by unusual conditions may be performed with the written consent of the City Manager.

F. Operate or permit the use of electrically operated compressor, fan, and other similar devices.

G. Operate or permit the use of any motor vehicle with a gross vehicle weight rating in excess of ten thousand (10,000) pounds, or of any auxiliary equipment attached to such a vehicle, including, but not limited to, refrigerated truck compressors for a period longer than fifteen (15) minutes in any hour while the vehicle is stationary and on a public right-of-way or public space except when movement of said vehicle is restricted by other traffic.

H. Repair, rebuild, reconstruct, or dismantle any motor vehicle or other mechanical equipment or devices in a manner so as to be plainly audible across property lines.

(Ord. MC-1246, 5-23-07)

8.54.060 Exemptions

The following activities and noise sources shall be exempt from the provisions of this chapter:

A. The use of horns, sirens, or other signaling or warning devices by persons vested with legal authority to use the same, and in pursuit of their lawful duties, such as on ambulances, fire, police, or other governmental or official equipment.

B. Such noises as are an accompaniment and effect of a lawful business, commercial or industrial enterprise carried on in an area zoned for that purpose, except where there is evidence that such noise is a nuisance and that such a nuisance is a result of the employment of unnecessary and injurious methods of operation.

C. Activities conducted on the grounds of any public or private school during regular hours of operation.

D. Outdoor gatherings, public dances, shows, and sporting and entertainment events provided said events are authorized by the City.

E. Activities conducted at public spaces during regular hours of operation.

F. Any mechanical devices, apparatus, or equipment used, related to, or connected with emergency machinery, vehicle, or work.

G. Construction, repair, or excavation necessary for the immediate preservation of life or property.

H. Construction, operation, maintenance, and repairs of equipment, apparatus, or facilities of park and recreation departments, public work projects, or essential public services and facilities, including, but not limited to, trash collection and those of public utilities subject to the regulatory jurisdiction of the California Public Utilities Commission.

I. Construction, repair, or excavation work performed pursuant to a valid written agreement with the City, or any of its political subdivisions, which provides for noise mitigation measures.

J. Any activity to the extent that regulation thereof has been preempted by State or Federal law.

K. Sounds generated in connection with speech or communication protected by the United States Constitution or the California Constitution, except to the extent such sounds are subject to permissible time, place, and manner restrictions.

(Ord. MC-1246, 5-23-07)

8.54.070 Disturbances from Construction Activity

No person shall be engaged or employed, or cause any other person to be engaged or employed, in any work of construction, erection, alteration, repair, addition, movement, demolition, or improvement to any building or structure except within the hours of 7:00 a.m. and 8:00 p.m.

(Ord. MC-1246, 5-23-07)

8.54.080 Violation - Penalty

Any person violating any of the provisions of this Chapter is guilty of an infraction or a misdemeanor, which upon conviction thereof is punishable in accordance with the provisions of Section 1.12.010 of this code.

(Ord. MC-1246, 5-23-07)

8.54.090 Severability

The provisions of this Chapter are severable, and, if any sentence, section or other part of this Chapter should be found to be invalid, such invalidity shall not affect the remaining provisions, and the remaining provisions shall continue in full force and effect.

(Ord. MC-1246, 5-23-07)

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APPENDIX 3.2:

CITY OF HIGHLAND MUNICIPAL CODE

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Chapter 8.50

NOISE CONTROL

Sections:
8.50.010 Findings and purpose.
8.50.020 Definitions.
8.50.030 Prohibited acts.
8.50.040 Excessive noise and vibration emanating from a motor vehicle.
8.50.050 Controlled hours of operation.
8.50.060 Exemptions.
8.50.070 Enforcement and administration.
8.50.080 Enforcement – Interference.
8.50.090 Violations – Notices – Abatement.
8.50.100 *Repealed.*
8.50.110 Violations – Notices – Service – Effect.
8.50.120 Immediate threats to health and welfare.
8.50.130 Administrative citations and costs of second and subsequent responses.
8.50.140 Modification, suspension and/or revocation of validly issued city permit and/or city license.

8.50.010 Findings and purpose.

A. It is the purpose of these regulations to implement the goals and objectives of the noise element of the city's general plan, to establish community-wide noise standards and to serve as a reference for locating other city regulations relating to noise in the community. It is further the purpose of these regulations to recognize that the existence of excessive noise within the city is a condition which is detrimental to the health, safety, welfare and quality of life of the citizens which should be regulated in the public interest.

B. In furtherance of the foregoing purpose, the city council finds and declares as follows:

1. The making, creation or maintenance of such loud, unnecessary, unnatural or unusual noises or vibrations that are prolonged, unusual, annoying, disturbing and unnatural in their time, place and use are a detriment to the public health, comfort, convenience, safety, general welfare and the peace and quiet of the city and its inhabitants; and

2. The public interest necessity for the provisions and prohibitions hereinafter contained and enacted is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuit of and for the purpose of securing and promoting the public health, comfort, convenience, safety, general welfare and property and the peace and quiet of the city and its inhabitants. (Ord. 324 § 2, 2008)

8.50.020 Definitions.

For the purposes of this chapter, the following terms shall have the meanings given:

"Construction equipment" means tools, machinery or equipment used in connection with construction operations, including all types of "special construction" equipment as defined in the pertinent sections of the California Vehicle Code when used in the construction process on any construction site, home improvement site or property maintenance site, regardless of whether such site be located on highway or off highway.

"Enforcement officer" means a city code enforcement officer or peace officer authorized to enforce the provisions and prohibitions of this chapter pursuant to HMC 8.50.070.

"Plainly audible" means any sound that can be detected by a person using his or her unaided hearing faculties. As an example, if the sound source under investigation is a portable or personal vehicular sound amplification or reproduction device, the investigating enforcement officer need not determine the title of any music, specific words, or the artist performing the music. The detection of the vibration from the rhythmic bass component of the music is sufficient to constitute a plainly audible sound.

"Public right-of-way" means any street, avenue, boulevard, highway, sidewalk, alley or similar place, owned or controlled by a government entity.

"Public space" means any real property or structure(s) on real property, owned by a government entity and normally accessible to the public, including but not limited to parks and other recreation areas.

"Responsible person" means (1) any person who owns, leases or is lawfully in charge of the property or motor vehicle where the noise violation takes place or (2) any person who owns or controls the source of the noise or violation. If the responsible person is a minor, then the parent or guardian who has custody of the child at the time of the violation shall be the responsible person who is liable under this chapter. (Ord. 324 § 2, 2008)

8.50.030 Prohibited acts.

A. It shall be unlawful for any person to engage in the following activities:

1. Sounding any horn or signal device on any automobile, motorcycle, bus or other motor vehicle in any other manner or circumstance(s) or for any other purpose than required or permitted by the Vehicle Code or other state laws.

2. Racing the engine of any motor vehicle while the vehicle is not in motion, except when necessary to do so in the course of repairing, adjusting or testing the same.

3. Operating or permitting the use of any motor vehicle on any public right-of-way or public place or on private property within a residential zone for which the exhaust muffler, intake muffler or any other noise abatement device has been modified or changed in a manner such that the noise emitted by the motor vehicle is increased above that emitted by the vehicle as originally manufactured.

4. Operating or permitting the use or operation of personal or commercial music or sound amplification or production equipment that is:

a. Plainly audible across property boundaries;

b. Plainly audible through partitions common to two residences within a building;

c. Plainly audible at a distance of 50 feet in any direction from the source of music or sound, between the hours of 7:00 a.m. and 10:00 p.m.; or

d. Plainly audible at a distance of 25 feet in any direction from the source of music or sound, between the hours of 10:00 p.m. and 7:00 a.m.

5. The intentional sounding or permitting the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or any motor vehicle burglar alarm, except for emergency purposes or for testing, unless such alarm is terminated within 15 minutes of activation.

6. Creating excessive noise adjacent to any school, church, court or library while the same is in use, or adjacent to any hospital or care facility, which unreasonably interferes with the workings of such institution, or which disturbs or unduly annoys patients in the hospital, provided conspicuous signs are displayed, clearly visible to the motoring public, indicating the presence of a school, institution of learning, church, court or hospital.

7. Making or knowingly and unreasonably permitting to be made any unreasonably loud, unnecessary or unusual noise that disturbs the comfort, repose, health, peace and quiet or which causes discomfort or annoyance to any reasonable person of normal sensitivity. The characteristics and conditions that may be considered in determining whether this section has been violated include, but are not limited to, the following:

a. The level of noise;

b. Whether the nature of the noise is usual or unusual;

c. Whether the origin of the noise is natural or unnatural;

d. The level of the background noise;

e. The proximity of the noise to sleeping facilities;

f. The nature and zoning of the area(s) within which the noise emanates;

g. The density of the inhabitation of the area within which the noise emanates;

h. The time of day or night the noise occurs;

i. The duration of the noise; and

j. Whether the noise is produced by a commercial or noncommercial activity.

B. A violation of this section is a public nuisance.

C. A violation of this section may result in the following:

1. Issuance of an administrative citation, where the fines and penalties shall be assessed as infractions in accordance with HMC 2.56.110;

2. Issuance of a notice of public nuisance and abatement pursuant to Chapter 8.28 HMC;

3. Imposition of criminal and civil penalties, including those in Chapter 1.24 HMC; and

4. Confiscation and impoundment as evidence of the components that are amplifying or transmitting the prohibited noise.

D. An enforcement officer who encounters a violation of this section may issue a written notice to the responsible person demanding immediate abatement of the violation (written notice). The written notice shall inform the recipient that a second violation of the same provision within a 72-hour period may result in the issuance of a criminal citation and/or notice of public nuisance, the imposition of criminal and civil penalties, and confiscation and impoundment as evidence of the components that are amplifying or transmitting the prohibited noise.

E. Any peace officer who encounters a second violation of this section within a 72-hour period following issuance of a written notice is empowered to confiscate and impound as evidence any or all of the components amplifying or transmitting the sound.

F. Any person claiming legal ownership of the items confiscated and impounded under this section may request the return of the item by filing a written request with the police department within seven calendar days of the confiscation. Such requests shall be processed in accordance with the procedures adopted by the police department. (Ord. 370 § 27, 2012; Ord. 324 § 2, 2008)

8.50.040 Excessive noise and vibration emanating from a motor vehicle.

A. No person shall operate or occupy a motor vehicle on any public right-of-way, public place or private property, while operating or permitting the use or operation of any radio, stereo receiver, musical instrument, television, computer, compact disc player, tape recorder, cassette player or any other device for the production or reproduction of sound from within the motor vehicle, so that the sound is plainly audible at a distance of 50 feet from such vehicle, or in the case of a motor vehicle on private property, beyond the property line.

B. A violation of this section is a public nuisance.

C. A violation of this section may result in the following:

1. Issuance of an administrative citation, where the fines and penalties shall be assessed as infractions in accordance with HMC 2.56.110;

2. Issuance of a notice of public nuisance and abatement pursuant to Chapter 8.28 HMC;

3. Imposition of criminal and civil penalties, including those in Chapter 1.24 HMC; and

4. Immediate confiscation and impoundment as evidence of the components that are amplifying or transmitting the prohibited noises or the immediate confiscation and impoundment of the motor vehicle to which the component is attached if the same may not be removed without causing harm to the vehicle or the component.

D. Any person claiming legal ownership of a motor vehicle confiscated and impounded under this section may request the return of the vehicle by filing a written request with the police department within seven calendar days of the confiscation. Such requests shall be processed in accordance with procedures adopted by the police department.

E. Any person claiming legal ownership of the items confiscated and impounded under this section, other than a motor vehicle, may request the return of the item by filing a written request with the police department, which shall be processed in accordance with procedures adopted by the police department. (Ord. 370 § 28, 2012; Ord. 324 § 2, 2008)

8.50.050 Controlled hours of operation.

It shall be unlawful for any person to engage in the following activities at a time other than between the hours of 5:00 a.m. and 10:00 p.m. on any day in the industrial (I) zone, and between the hours of 7:00 a.m. and 10:00 p.m. on any day in all other zones:

A. Operate or permit the use of powered model vehicles and planes.

B. Load or unload any vehicle, or operate or permit the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous or unnecessary noise within 1,000 feet of a residence.

C. Operate or permit the use of domestic power tools, machinery, or any other equipment or tool in any garage, workshop, house or any other structure.

D. Operate or permit the use of gasoline or electric-powered leaf blowers such as commonly used by gardeners and other persons for cleaning lawns, yards, driveways, gutters and other property.

E. Operate or permit the use of privately operated street/parking lot sweepers or vacuums, except that emergency work and/or work necessitated by unusual conditions may be performed with the written consent of the code enforcement officer.

F. Operate or permit the use of electrically operated compressor(s), fan(s) and other similar device(s).

G. Operate or permit the use of pile driver(s), steam or gasoline shovel(s), pneumatic hammer(s), steam or electric hoist(s) or other similar device(s).

H. Perform ground maintenance on golf course grounds and tennis courts contiguous to golf courses that creates a noise disturbance across a residential or commercial property line.

I. Operate or permit the use of any motor vehicle with a gross vehicle weight rating in excess of 10,000 pounds, or of any auxiliary equipment attached to such a vehicle, including but not limited to refrigerated truck compressors, for a period longer than 15 minutes in any hour while the vehicle is stationary and on a public right-of-way or public space, except when movement of said vehicle is restricted by other traffic.

J. Repair, rebuild, reconstruct or dismantle any motor vehicle or other mechanical equipment or device(s) in a manner so as to be plainly audible across property lines.

K. Load, unload, open, close or otherwise handle garbage cans, recycling bins or other similar objects between the hours of 10:00 p.m. and 7:00 a.m. the following morning, except city-permitted trash collection. (Ord. 352 § 1, 2010; Ord. 324 § 2, 2008)

8.50.060 Exemptions.

The following activities and noise sources shall not be subject to the provisions of this chapter:

A. Those noise events in the community (e.g., airport noise, arterial traffic noise, railroad noise) that are more accurately measured by application of the general plan noise element policy, utilizing the community noise equivalent level (CNEL) method.

B. Activities conducted on the grounds of any public or private school during regular hours of operation.

C. Outdoor gatherings, public dances, shows and sporting and entertainment events, provided said events are authorized by the city.

D. Legally permitted activities conducted at public places during regular hours of operation.

E. Any mechanical device, apparatus, or equipment used, related to or connected with emergency machinery, vehicle or work.

F. All mechanical devices, apparatus, or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions.

G. Mobile noise sounds associated with agricultural operations, provided such operations do not take place between the hours of 10:00 p.m. and 7:00 a.m. on weekdays, including Saturdays, or at any time on Sunday or a state holiday.

H. Mobile noise sources associated with agricultural pest control through pesticide application.

I. Warning devices necessary for the protection of the public safety, including, but not limited to, police, fire and ambulance sirens and train horns and sounds for the purpose of alerting persons to the existence of an emergency.

J. Construction, repair or excavation necessary for the immediate preservation of life or property.

K. Construction, operation, maintenance and repair of equipment, apparatus or facilities of the park and recreation department, public work projects or essential public services and facilities, including trash collection and those of public utilities subject to the regulatory jurisdiction of the Public Utilities Commission.

L. Construction, repair or excavation work performed pursuant to a valid written agreement with the city or any of its political subdivisions, which agreement provides for noise mitigation measures.

M. Any activity, to the extent regulation thereof has been preempted by state or federal law.

N. Any specific activity or noise source governed elsewhere in this code. Such activities include, but are not limited to:

1. Security alarm systems (Chapter 8.04 HMC);

2. Animal noise (Chapter 6.04 HMC);

3. Loud, unruly or disorderly private parties or assemblies (Chapter 9.17 HMC). (Ord. 324 § 2, 2008)

8.50.070 Enforcement and administration.
The city manager, chief of police and/or their designees shall be responsible for administering and enforcing the provisions of this chapter. (Ord. 324 § 2, 2008)

8.50.080 Enforcement – Interference.
No person shall interfere with, oppose, or resist any authorized person charged with the enforcement of this chapter while such person is engaged in the performance of his duty. (Ord. 324 § 3, 2008; Ord. 283 § 4, 2002. Formerly 8.50.140)

8.50.090 Violations – Notices – Abatement.
Violations of this chapter shall be prosecuted in the same manner as other violations of this code; provided, however, in the event of an initial violation of the provisions of this chapter, a written notice shall be given the

alleged violator which specifies the time by which the condition shall be corrected or, where applicable, an application for a permit shall be received by the planning division. No complaint or further action shall be taken in the event the cause of the violation has been removed or the condition abated or fully corrected within the time period specified in the written notice. (Ord. 370 § 29, 2012; Ord. 324 § 3, 2008; Ord. 283 § 4, 2002. Formerly 8.50.150)

8.50.100 Violations – Penalties.
Repealed by Ord. 370. (Ord. 324 § 3, 2008; Ord. 283 § 4, 2002. Formerly 8.50.160)

8.50.110 Violations – Notices – Service – Effect.
In the event the alleged violator cannot be located in order to serve the violation of intention to prosecute, such notice shall be deemed to be given upon mailing such notice by registered or certified mail to the alleged violator at his last known address or at the place where the violation occurred, in which event the specified time period for abating the violation or applying for a variance shall commence on the date of the day following the mailing of such notice. Subsequent violations of the same offense shall result in the immediate filing of a complaint. (Ord. 370 § 30, 2012; Ord. 324 § 3, 2008; Ord. 283 § 4, 2002. Formerly 8.50.170)

8.50.120 Immediate threats to health and welfare.
A. The city manager may order an immediate halt to any sound which exposes any person, except those excluded pursuant to HMC 8.50.060, to continuous sound levels in excess of those described herein. Within two days following the issuance of any such order, the city shall apply to the appropriate court for an injunction to replace the order.

B. No order pursuant to subsection A of this section shall be issued if the only persons exposed to sound levels in excess of those contained herein are exposed as a result of (1) trespassing; (2) an invitation upon private property by the person causing or permitting the sound; or (3) employment by the person or contractor of the person causing or permitting the sound.

C. Any person subject to an order issued pursuant to subsection A of this section shall comply with such order until (1) the sound is brought into compliance with the order, as determined by the city manager; or (2) a judicial order has superseded the order of the city manager. (Ord. 324 § 3, 2008; Ord. 283 § 4, 2002. Formerly 8.50.180)

8.50.130 Administrative citations and costs of second and subsequent responses.
The city manager or his designee, in his/her sole discretion, may prosecute violations of this chapter through the administrative citation process set forth in Chapter 2.56 HMC, in lieu of the criminal or nuisance abatement process. In the case of second and subsequent violations of this chapter, the city may assess a second response service fee in compliance with HMC 9.17.030 through 9.17.060, inclusive. (Ord. 324 § 4, 2008)

8.50.140 Modification, suspension and/or revocation of validly issued city permit and/or city license.
The violation of this chapter by any city permittee or licensee more than twice in any six-calendar-month period, in the course of operating pursuant to a validly issued city permit and/or license, may be grounds for the modification, suspension or revocation of such license subject to normal city processes, in the discretion of the city manager. (Ord. 324 § 4, 2008)

APPENDIX 3.3:

CITY OF HIGHLAND GENERAL PLAN NOISE ELEMENT

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7. Noise Element

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Chapter 7. Noise

INTRODUCTION

Purpose and Function

The everyday activities of residents, visitors and workers have the potential to generate a variety of noise sources in the City of Highland. The San Bernardino International Airport (SBIA) is a public, full-service airport designed to serve the western United States with commercial and cargo air traffic. The SBIA contains and is surrounded by multiple commercial and industrial properties, all of which have the potential to generate noise through their business activities. Highland also generates and draws a significant level of passenger and truck traffic through the City along the major roadways and highways, creating mobile sources of noise that can impact noise-sensitive land uses such as homes and schools.

The Noise Element provides the goals and strategies necessary to ensure an appropriately quiet environment for the residents, employees and visitors in Highland. Since the regulation of transportation noise sources such as roadway and aircraft primarily fall under either state or federal jurisdiction, local land use and development planning decisions are generally made in terms of limiting locations or volumes of such sources, of avoiding development in noise impact zones or in shielding impacted receiver sites.

As development continues, the City shall carefully review proposals to ensure that land uses incompatible with the noise environment are avoided. This Element identifies noise issues within the City and provides goals and policies aimed at minimizing noise conflicts and furthering the public health, safety and welfare.

Element Components

The Noise Element has been organized into three sections:

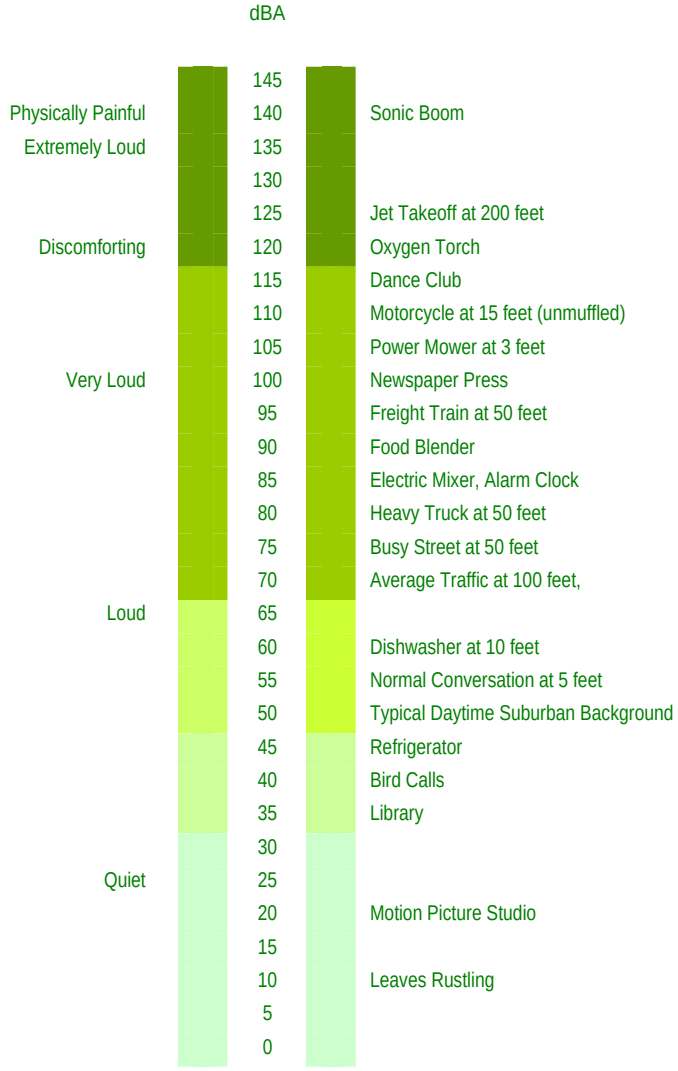
- **Introduction**. This section states the purpose of the Element, provides a brief introduction to the topic of noise and discusses other related plans and programs that affect the noise environment of Highland.
- **Noise Assessment and Modeling**. This section presents the findings and standards of the General Plan noise analysis on the buildout of the General Plan Land Use Plan.
- **Goals and Policies**. This section provides a discussion of noise issues that apply to one area of the City or apply Citywide. Each of the issue discussions is followed by a series of goals and policies.

Understanding Noise

The principal characteristics of sound are its loudness (amplitude) and frequency (pitch). The frequency of a sound is significant because the human ear is not equally sensitive to all frequencies. At low frequencies, characterized as a rumble or roar, the ear is not very sensitive while at higher frequencies, characterized as a screech or a whine, the ear is most sensitive. To reflect this varying sensitivity, an A-weighted decibel scale (dBA) is typically used to measure the perceived loudness of a sound.

Noise refers to sound pressure variations audible to the ear. The audibility of a sound depends on the amplitude and frequency of the sound and the individual's capability to hear the sound. Whether the sound is judged as noise depends largely on the listener's current activity and attitude toward the sound source, as well as the amplitude and frequency of the sound. To obtain convenient measurements and sensitivities at extremely low and high sound pressures, sound is measured in units of the decibel (dB). A listener often judges an increase in sound levels of 10 dBA as a doubling of sound. Examples of the decibel level of various noise sources are shown in Figure 7.1.

Figure 7.1: Noise Levels of Familiar Sources



Ranges and Effects of Noise

The most common sounds vary between 40 dBA (very quiet) and 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud engine noises equate to 110 dBA, which can cause serious discomfort. Physical health, psychological well-being, social cohesion, property values and economic productivity can all be affected by excessive amounts of noise.

The effects of noise on people can be grouped into three general categories: subjective effects, such as annoyance and nuisance; interference with activities such as conversation and sleep; and physiological effects, for example, a startle or hearing loss.

Noise Terminology

dB (Decibel) – The unit of measure that denotes the ratio between two quantities that are proportional to power; the number of decibels corresponding to the ratio of the two amounts of power is based on a logarithmic scale.

dBA (A-weighted decibel) – The A-weighted decibel scale discriminates against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale ranges from zero for the least perceptible sound to about 130 for the pain level.

CNEL (Community Noise Equivalent Level) – The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. CNEL and Ldn are the metrics used in this document to describe annoyance due to noise and to establish land use planning criteria for noise.

L50 – The A-weighted sound level that is exceeded 50 percent of the sample time. Alternatively, the A-weighted sound level that is exceeded 30 minutes in a 60-minute period (similarly, L10, L25, etc.). These values are typically used to demonstrate compliance with noise restrictions included in the City noise ordinance.

Leq (Equivalent Energy Level) – The average acoustic energy content of noise during the time it lasts. The Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure, no matter what time of day they occur.

Ldn (Day-Night Average Level) – The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. Note: CNEL and Ldn represent daily levels of noise exposure averaged on an annual or daily basis, while Leq represents the equivalent energy noise exposure for a shorter time period, typically one hour. CNEL and Ldn are the metrics used in this document to describe annoyance due to noise and to establish land use planning criteria for noise.

Noise Contours – Lines drawn around a noise source indicating equal levels of noise exposure.

Adverse reactions to noise generally increase with an increase in the difference between background or ambient noise and the noise generated from a particularly intrusive source such as a barking dog, traffic, aircraft or industrial operations. In most situations, noise control measures must reduce noise by 5 to 10 dBA in order to effectively lower the perceived sound. Therefore, loud, short duration noises from barking dogs and low-flying aircraft generally have little impact upon the Community Noise Equivalent Level (CNEL) levels of an area, due to the CNEL being a 24-hour weighted average of noise levels.

Managing the Noise Environment

There are a variety of strategies available for managing the City's noise environment and preserving those qualities of peace and quiet that are essential and highly valued community assets. Land use planning, transportation planning, project design mitigation, simple and sophisticated technical fixes, and acoustical barriers can be applied to address community noise compatibility issues.

In areas subject to significant or potentially significant noise impacts, site planning and design standards are geared to provide noise impact mitigation. Other mitigation measures include the use of buffer zones consisting of earthen berms, walls and landscaping between sensitive land uses and roadways and other noise sources. In addition, site planning and building orientation can provide shielding of outdoor living spaces and orient operable windows away from roadways. Effective acoustical materials can also be incorporated into building windows and walls that adequately reduce outdoor noise.

Sensitive Noise Receptors

A series of land uses have been deemed "noise-sensitive" by the State of California. These land uses require a serene environment as part of the overall facility or residential experience. Many of these facilities depend on low levels of sound to promote the well being of the occupants. Land uses deemed noise-sensitive by the State of California include residences, schools, hospitals, rest homes, long-term care and mental care facilities. Highland considers residential dwellings and institutional uses such as hospitals, convalescent homes and churches to be sensitive noise receptors. Activities conducted in proximity to these facilities must consider the noise output and ensure that they don't create unacceptable noise levels that may unduly affect the noise-sensitive uses.

Relatively noise insensitive land uses include retail and office developments. Land uses that are the least impacted by noise include industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, rifle ranges, warehousing, liquid and solid waste facilities, salvage yards and transit terminals.

Related Plans and Program

Other Elements

The Noise Element is most closely related to the Land Use and Airport Elements. The Land Use Element identifies land use patterns and policies to address land use compatibility. The Airport Element addresses comprehensive issues related to the San Bernardino International and Redlands Municipal Airports, including noise.

Municipal Code

The City of Highland Municipal Code sets forth the City's standards, guidelines and procedures concerning the regulation of noise use. Specifically, the Code includes Title 8, Health and Safety, which includes a chapter on noise control, and Title 16, Land Use and Development. Title 8 directly regulates noise while Title 16 lays out land use standards that indirectly regulate noise-generating and sensitive land uses. These regulations are intended to implement the goals, objectives and policies of the General Plan; protect property values and the health and general well being of the public; and ensure that any negative effects of noise are minimized or completely avoided.

The City categorizes land uses into designated noise zones to assign appropriate interior and exterior noise standards. The appropriate interior and exterior noise standards are identified in Tables 7.1 and 7.2, respectively.

Table 7.1: City of Highland Interior Noise Standards

Type of Land Use	*CNEL (dBA)*
Residential	45
Educational/churches, other institutional uses	45
General offices	50
Retail stores, restaurants	55
Manufacturing, warehousing	65
Agricultural	55
Sand and gravel operations	75

Source: Chapter 8.50, Noise Control, City of Highland Municipal Code.

Table 7.2: City of Highland Exterior Noise Standards		
Type of Land Use	*Time Interval*	*CNEL (dBA)*
Residential	10:00 p.m. – 7:00 a.m.	55
	7:00 a.m. – 10:00 p.m.	60
Agricultural/Equestrian	10:00 p.m. – 7:00 a.m.	60
	7:00 a.m. – 10:00 p.m.	65
Commercial	10:00 p.m. – 7:00 a.m.	65
	7:00 a.m. – 10:00 p.m.	70
Manufacturing or Industrial	Any Time	75
Open Space	Any Time	75

Source: Chapter 8.50, Noise Control, City of Highland Municipal Code.

San Bernardino International Airport Plans

For a more detailed discussion of issues and policies related to the San Bernardino International Airport and Redlands Municipal Airport, please refer to the Airport Element.

The San Bernardino International Airport (SBD), located just outside the City's southern boundary, has the capacity to provide regional air traffic for domestic and international service, both commercial and cargo, along with the necessary support facilities for major and smaller airlines. When adopted, the Airport Master Plan should contain standards and guidelines on the appropriate range and design of land uses within areas impacted by noise emanating from airport operations.

Redlands Municipal Airport Land Use Compatibility Plan

Redlands Municipal Airport (RMA) is a General Aviation facility located south of Highland near the Santa Ana Wash. The Redlands Municipal Airport Land Use Compatibility Plan (LUCP) establishes procedures and criteria by which the City of Redlands can address, evaluate and review airport compatibility issues in the vicinity of the Redlands Municipal Airport. The (LUCP) also serves to alert the City of Highland to the potential effects of air traffic from the Redlands Municipal Airport on land uses in southern Highland.

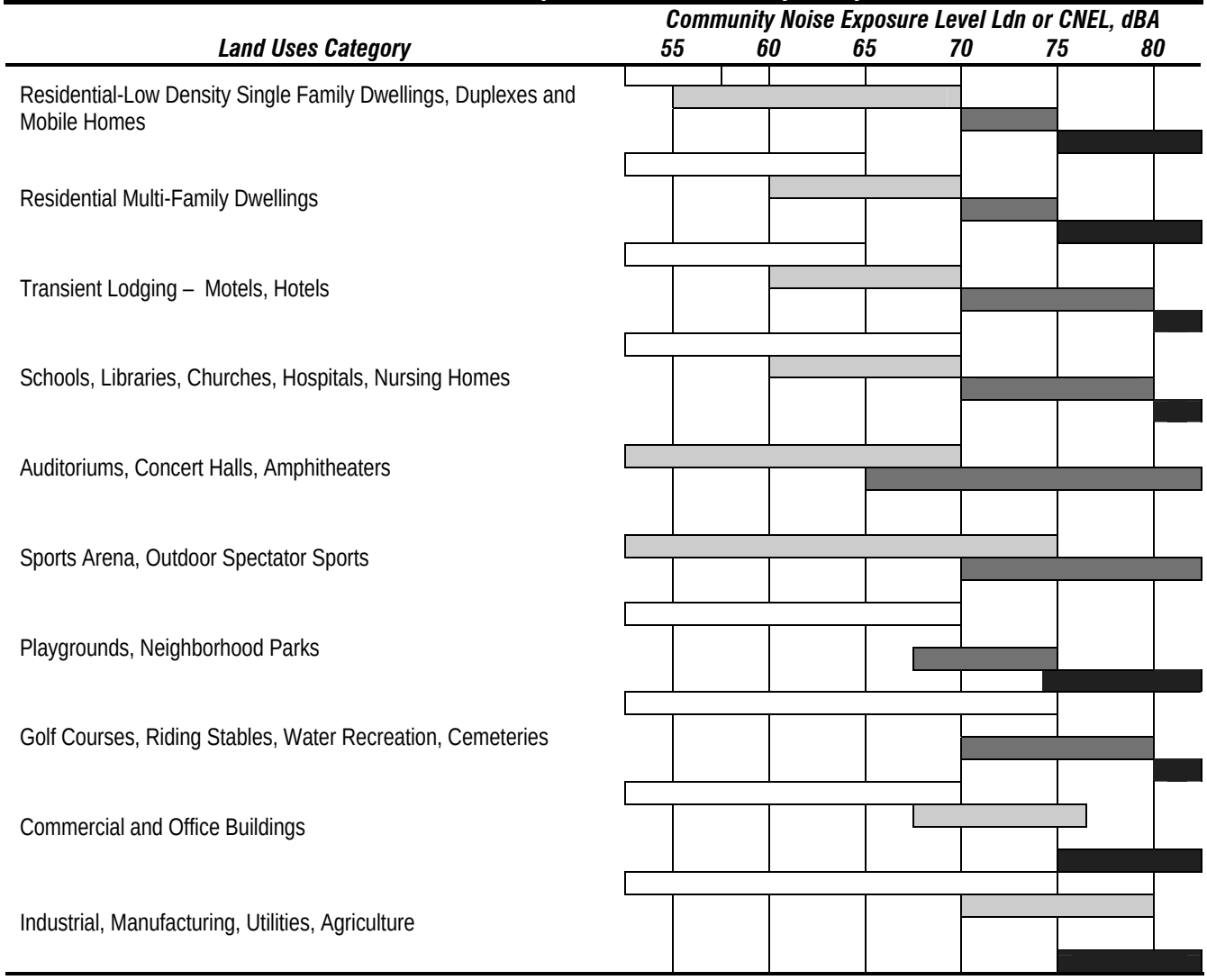
Federal Regulations

State routes and freeways that run through the City are subject to federal funding and, as such, are under the purview of the Federal Highway Administration (FHWA). The FHWA has developed noise standards that are typically used for federally funded roadway projects or projects that require either federal or Caltrans review. The Environmental Protection Agency is charged with the regulation of railroad noise under the Noise Control Act, which is enforced by the Federal Railroad Administration.

California Department of Health Services

The California Department of Health Services (DHS) Office of Noise Control studied the correlation of noise levels and their effects on various land uses. As a result, the DHS established four categories for judging the severity of noise intrusion on specified land uses. Table 7.3 presents a land use compatibility chart for community noise prepared by the California Office of Noise Control to demonstrate land use compatibility. Whereas the interior and exterior noise standards presented in Tables 7.1 and 7.2 provides limits on noise exposure for land uses from those sources of noise under the jurisdiction of the City, Table 7.3 provides planning guidelines for the review and approval of development applications in terms of the compatibility of land uses with the existing and future noise environment.

Table 7.3: Community Noise and Land Use Compatibility



Explanatory Notes

Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice. Outdoor environment will seem noisy.

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.

Clearly Unacceptable:
New construction or development should generally not be undertaken. Construction cost to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: California Office of Noise Control

NOISE ASSESSMENT AND MODELING

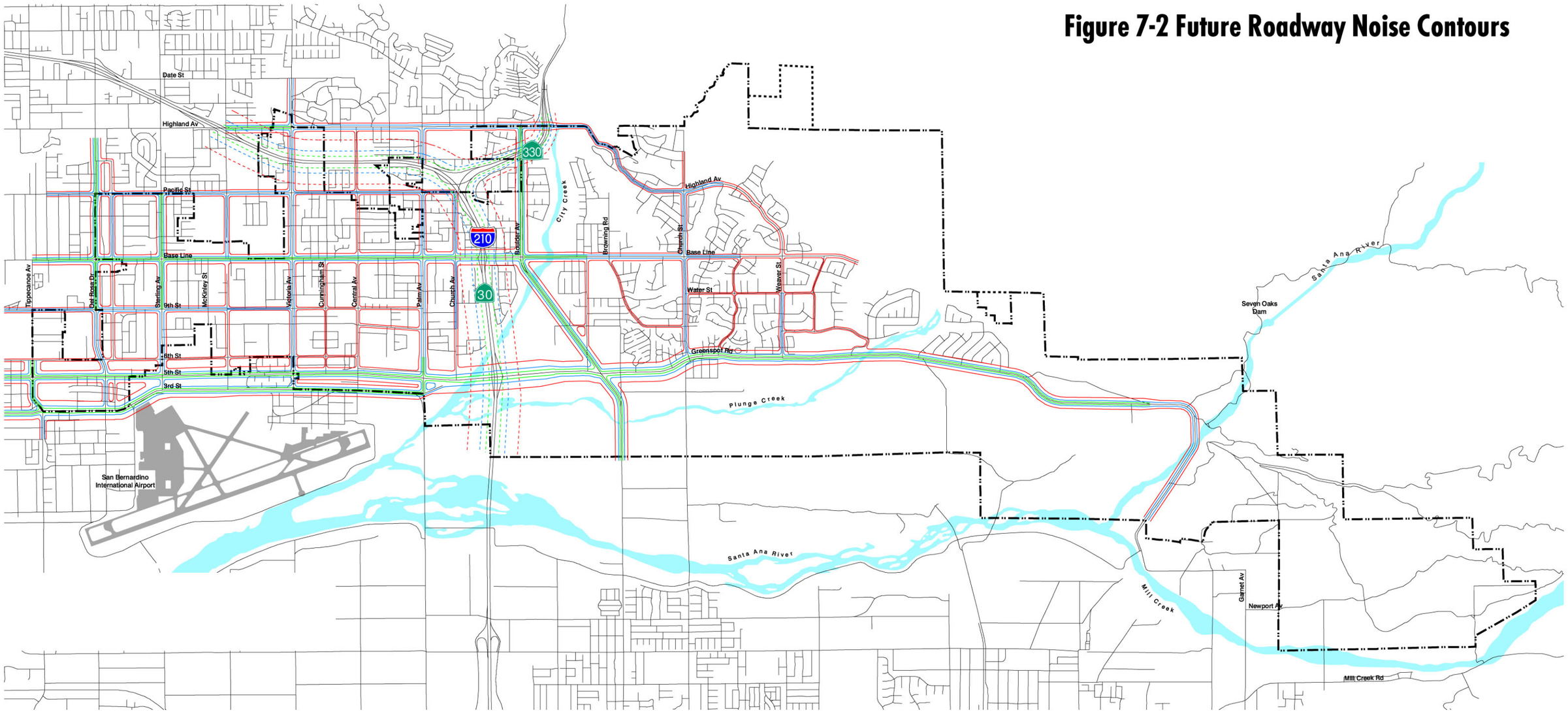
To understand and evaluate the impacts of land use patterns, traffic and individual developments on the noise environment, the General Plan Environmental Impact Report incorporates a comprehensive noise analysis of existing noise sources and projections of traffic volumes associated with the buildout of the General Plan. Existing and future impacts have been modeled, with projected noise contours for the City's roadways and freeways at buildout presented in Figure 7.2.

Like all highly urbanized areas, the City of Highland is subject to noise from a myriad of sources. The major source of noise is from mobile sources and most specifically, traffic traveling through the City on its various roadways and freeways. Future noise impacts to the community are expected to be primarily generated by increasing traffic volumes.

It is important to note that special attention to project specific site design may substantially reduce noise impacts below those projected; therefore, these estimates are considered to be conservative and unmitigated. A wide range of design criteria affecting roadway engineering and traffic noise abatement include differences in final grade between the roadbed and the top of walls, spacing of intersections, setbacks and parkway widths, roadway composition and other considerations.

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Figure 7-2 Future Roadway Noise Contours



65 CNEL
70 CNEL
75 CNEL
Freeway 65 CNEL
Freeway 70 CNEL
Freeway 75 CNEL
City Boundary
Sphere of Influence

0' 4000'

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GOALS AND POLICIES

This section contains a brief discussion and detailed policy direction for noise issues within Highland. The first issue, Land Use Planning and Design, concerns the relationship between the design and approval of land uses and existing or potential noise sources. The second issue, Transportation Related Noise Sources, considers impacts that can be created by the operation of motor vehicles, trucks, aircraft and railways in the City. Non-Transportation-Related Noise Sources, the third issue, involves noise impacts created by business or residential activities, such as air conditioning units, mining activities, barking dogs or community events. By following the policies associated with each issue, Highland will ensure compatible development, protect noise-sensitive land uses and minimize the effects of excessive and nuisance noise.

In addition to these goals, it is important to note that additional land use direction is provided through other General Plan Elements, the Development Code and redevelopment efforts.

Land Use Planning and Design

As Highland grows, the City's population, employment and commercial activity may generate more traffic and attract additional noise producing uses. In addition, some undeveloped and underdeveloped areas are designated for land uses that may be noise-sensitive and are located in proximity to roadways and transit facilities. For example, along Base Line, mixed-use and medium density residential development is encouraged to stimulate the development of vibrant commercial activity. In addition, some older neighborhoods in the southwestern portion of the City adjacent to the SBIA are currently located in areas that are transitioning to potential noise-generating business park and industrial uses.

As a result, land use compatibility with noise is an important consideration in the planning and design process. To identify potential mitigation to address noise abatement strategies, noise evaluations should be conducted when a proposed project places sensitive land uses and major noise generators within close proximity to each other. The City's Community Development Department currently uses the project review process to identify potential noise issues and works with developers or landowners to apply site planning and other design strategies to reduce noise impacts. A developer, for example, could take advantage of the natural shape and contours of a site to arrange buildings and other uses in a manner that would reduce and possibly eliminate noise impacts. Examples of other site and architectural techniques could include:

- Increasing the distance between noise source and receiver;

- Placing non-noise-sensitive land uses such as parking lots, maintenance facilities and utility areas between the noise source and receiver, while maintaining aesthetic considerations;
- Using non-noise-sensitive structures such as garages to shield noise-sensitive areas;
- Orienting buildings to shield outdoor spaces from a noise source; and
- Locating bedrooms in residential developments on the side of the house facing away from major roads.

GOAL 7.1

Protect sensitive land uses and the citizens of Highland from annoying and excessive noise through diligent planning and regulation.

Policies

1) Enforce the City's Noise Control Ordinance consistent with health and quality of life goals and employ effective techniques of noise abatement through such means as a noise ordinance, building codes and subdivision and zoning regulations.

2) Encourage the use of site planning and architectural techniques such as alternative building orientation and walls combined with landscaping to mitigate noise to levels consistent with interior and exterior noise standards.

3) Require mitigation where sensitive uses are to be placed along transportation routes to ensure compliance with interior and exterior noise standards.

4) Consider the compatibility of proposed land uses with the noise environment when preparing, revising or reviewing development proposals.

5) Prevent the siting of sensitive uses in areas in excess of established 65 dBA CNEL without appropriate mitigation. Special attention should be paid to potential development within the 65 dBA CNEL noise contour of the San Bernardino International Airport and mining operations of the Santa Ana River.

6) Work with San Bernardino International Airport Authority to ensure that future airport planning activities encourage consistency with adopted City land use plans and minimize impacts on Highland's economic development opportunities and quality of life.

7) Require that site-specific noise studies be conducted by a qualified acoustic consultant utilizing acceptable methodologies while reviewing the development of sensitive land uses or development that has the potential to impact sensitive land uses. Also require a site-specific noise study if the proposed development could potentially violate the noise provisions of the General Plan or City ordinance.

Actions

1) Coordinate with school districts to ensure that schools are located and designed so that:

   - interior noise in classrooms does not exceed 45 CNEL
   - noise exposure does not exceed 65 CNEL at classroom buildings; and
   - noise exposure does not exceed 70 CNEL on playgrounds and athletic fields.

2) Coordinate with the San Bernardino International Airport Authority to minimize flight patterns over the City.

3) When site and architectural design features cannot sufficiently reduce adverse noise levels, or cannot be economically provided, require the provision of noise barriers/berms, provided that noise barriers:

   - are sufficiently massive to prevent significant noise transmission and high enough to shield receiver from noise source;
   - noise barriers exhibit a minimum acceptable density of four pounds per square foot (equivalent to 3/4-inch plywood):
   - contain no cracks or openings; and
   - minimize the effect of flanking by bending the barrier back from the noise source at the end of the barrier.

4) Require landscaping treatment to be provided in conjunction with noise barriers to provide visual relief and to reduce aesthetic impacts.

5) Require realtors representing homebuyers in the vicinity of the gun club to inform new buyers of the existence of potential noise impacts associated with gunfire.

6) Maintain a noise complaint file to document areas of excessive noise in the City.

Transportation-Related Noise Sources

Highland's proximity to southern Californian mountains, desert resorts and other cultural and recreational attractions draws a significant level of passenger and truck traffic through the City. The City contains two major highways (State Routes 30 and 330) and a number of major arterials (such as Base Line and 5th Street), and sits next to the San Bernardino International Airport. These transportation facilities, while important components to mobility and economic vitality, are the major contributors of noise in Highland. Cost effective strategies to reduce their influence on the community noise environment are an essential part of the Noise Element.

While local government has little direct control of transportation noise at the source, as these levels are set by state and federal agencies, the City does have some control over transportation noise that exceeds state and/or federal standards through the enforcement of the Municipal Code. The most effective method the City has to mitigate transportation noise is by reducing the impact of the noise onto the community through noise barriers and site design review. The effect of a noise barrier is critically dependent on the distance between the noise source and the receiver. Noise attenuation from barriers occurs when the barrier penetrates the "line of sight" between the source and receiver; the greater the penetration or height of the barrier, the greater the noise reduction. Additional attenuation can be achieved depending upon the source of transportation-related noise.

Roadways

Roadways are one of the biggest sources of noise in the City. Everyday, thousands of vehicles travel through and around Highland. Noise levels along roadways are determined by a number of traffic characteristics. The most important is the average daily traffic levels. Additional factors include the percentage of trucks, vehicle speed, the time distribution of this traffic and gradient of the roadway.

One way the City can control vehicle noise is through speed reduction. A change of just 5 miles per hour can change the resultant noise by approximately 1 to 2 dB. The difference in noise associated with a reduction of 10 miles per hour could be roughly equivalent to reducing the traffic volume by one-half. The City also has some control over traffic-generated noise through weight limitations and the designation of truck routes. Medium trucks (i.e., those with a gross vehicle weight between 5 and 13.25 tons) produce as much acoustical energy as approximately 5 to 16 automobiles depending on the speed, with slower speeds demonstrating greater differential. Similarly, heavy trucks (i.e.,

those with a gross vehicle weight in excess of 13.25 tons) produce as much acoustical energy as 10 to 60 automobiles.

The City can further reduce traffic-generated noise by ensuring that street paving is maintained and bumps and dips are minimized. Poor paving causes vehicles to bounce and this bouncing exacerbates the noise due to the rattling of the vehicle. This is especially important along those routes that realize augmented volumes of truck traffic. Noise contours for the City's roadways and freeways are presented in Figure 7.2. Future conditions consider sound levels given the buildout of land uses and the roadway network, but do not consider sound attenuation measures such as soundwalls.

Aircraft

Highland is subject to the activities of the San Bernardino International Airport (SBIA) and the Redlands Municipal Airport (RMA). Airport operations of the SBIA and RMA are of significant importance to the City of Highland because of their impacts to Highland's safety, physical development and economic welfare. In addition, local helicopter air traffic is commonplace throughout the City. News and other helicopters (e.g., freeway traffic report helicopters) fly through the area. Helicopter use for fire and police services and at local hospitals is considered as an emergency activity and is addressed by FAA regulations.

☞ Specific policy direction on aircraft noise is provided in the Airport Element.

GOAL 7.2

Encourage the reduction of noise from transportation-related noise sources such as automobile and truck traffic.

Policies

1) Guide the location and design of transportation facilities to minimize the exposure of noise on noise-sensitive land uses.

2) Employ noise mitigation practices, as necessary, when designing future streets and highways, and when improvements occur along existing road segments. Mitigation measures should emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.

3) Require that development generating increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses provide appropriate mitigation measures.

4) Minimize truck traffic through residential neighborhoods.

5) Encourage the development of alternative transportation modes such as bicycle paths and pedestrian walkways to minimize the number of automobile trips and noise.

Actions

1) Maintain roadways so that the paving is in good condition to reduce noise-generating cracks, bumps and potholes.

2) Use the daily design capacity identified in the General Plan and the posted speed limit to quantify the design noise levels adjacent to transportation routes for mitigation purposes.

3) Require evaluation of highway and arterial roadway extensions for potential noise impacts on existing and future land uses.

4) Consider the effects of truck routes, truck traffic, posted speed limits and future motor vehicle volumes on noise levels adjacent to transportation routes when planning improvements to the circulation system.

5) Work with Caltrans to landscape or install mitigation elements along freeways and highways adjacent to existing residential subdivisions or noise-sensitive uses to beautify the landscape and reduce noise, where appropriate.

6) Monitor proposals for future transit systems and require noise control to be considered in the selection of transportation systems that may affect the City.

Non-Transportation-Related Noise Sources

The City currently maintains a diversity of land uses, most of which generate their own noise. Noise from one land use can "spill over" into other uses and can potentially create undesirable noise impacts. Industrial facilities generate noise through various processes that involve the use of heavy equipment and machinery. However, even commercial facilities and residential units can generate noise from the use of heating, ventilating and air conditioning (HVAC) units.

Restaurants, bars and entertainment establishments may use sound amplification equipment that operates well into the night. Residential areas are also subject to noise from the use of landscape maintenance equipment, barking dogs, etc. Mixed-use areas that place residential uses alongside or above commercial uses can present their own challenges. Requiring that the commercial component meet a residential standard could make commercial operations difficult.

Alternatively, applying a commercial standard to a mixed-use project could result in unacceptable noise levels at the residential portion of the structure/site. Still, mixed-use projects offer several advantages from both an air quality and transportation perspective, and should be encouraged.

One major stationary noise generator associated with mining and processing of sand and gravel operations is located southeast of the City's boundary. Noise generated from the gravel pit is produced by the use of vehicles and aggregate processing equipment. Vehicles include bulldozers, loaders and other heavy machinery, as well as heavy trucks used to load finished aggregate products for delivery via public roadways. Low frequency noise source emissions can be reduced by modifying equipment.

Noise emissions from mineral extraction activities are most heavily concentrated within the processing area. A combination of individual point noise sources and a diffuse collection of mobile equipment are the primary cause for the noise observed in the nearest residential neighborhoods north of the sand and gravel operations.

GOAL 7.3

Protect residents from the effects of "spill over" or nuisance noise.

Policies

1) Enforce the City's Noise Control Ordinance so that new projects located in commercial or entertainment areas do not exceed stationary-source noise standards at the property line of proximate residential or commercial uses, as appropriate.

2) Prohibit new industrial uses from exceeding commercial or residential stationary-source noise standards at the most proximate land uses, as appropriate. (Industrial noise may spill over to proximate industrial uses so long as the combined noise does not exceed the appropriate industrial standards.)

3) Require that construction activities employ feasible and practical techniques to minimize noise impacts on adjacent uses. Particular emphasis shall be placed on the restriction of hours in which work other than emergency work may occur.

4) Require that the hours of truck deliveries to commercial properties abutting residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour.

5) Ensure that buildings are constructed to prevent adverse noise transmission between differing uses located in the same structure and individual residences in multi-family buildings.

Actions

1) As a condition of approval, limit non-emergency construction activities adjacent to existing noise-sensitive uses to daylight hours between 7:00 a.m. and 6:00 p.m. Discourage construction on weekends or holidays except in the case of construction proximate to schools where these operations could disturb the classroom environment.

2) Ensure that the design and placement of air conditioning units and pool equipment within residential areas is accomplished in a manner that does not intrude upon the peace and quiet of adjacent noise-sensitive uses.

3) Encourage the use of portable noise barriers for heavy equipment operations performed within 100 feet of existing residences or make applicant provide evidence as to why the use of such barriers is infeasible.

APPENDIX 5.1:

STUDY AREA PHOTOS

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JN: 13635 Study Area Photos



L1_E
34, 6' 37.840000", 117, 15' 22.190000"



L1_N
34, 6' 37.840000", 117, 15' 22.190000"



L1_S
34, 6' 37.810000", 117, 15' 22.160000"



L1_W
34, 6' 37.790000", 117, 15' 22.160000"



L2_E
34, 6' 36.870000", 117, 14' 55.390000"



L2_N
34, 6' 36.870000", 117, 14' 55.390000"

JN: 13635 Study Area Photos



L2_S
34, 6' 36.870000", 117, 14' 55.390000"



L2_W
34, 6' 36.850000", 117, 14' 55.360000"



L3_E
34, 6' 37.200000", 117, 13' 55.730000"



L3_N
34, 6' 37.070000", 117, 13' 55.810000"



L3_S
34, 6' 37.200000", 117, 13' 55.730000"



L3_W
34, 6' 37.110000", 117, 13' 55.810000"



L4_E
34, 6' 45.890000", 117, 13' 2.230000"



L4_N
34, 6' 45.620000", 117, 13' 2.340000"



L4_S
34, 6' 45.970000", 117, 13' 2.310000"



L4_W
34, 6' 46.030000", 117, 13' 2.420000"



L5_E
34, 6' 36.800000", 117, 13' 1.620000"



L5_N
34, 6' 36.800000", 117, 13' 1.620000"



L5_S
34, 6' 36.770000", 117, 13' 1.680000"



L5_W
34, 6' 36.770000", 117, 13' 1.700000"



L6_E
34, 6' 38.060000", 117, 12' 12.240000"



L6_N
34, 6' 38.060000", 117, 12' 12.240000"



L6_S
34, 6' 38.050000", 117, 12' 12.240000"



L6_W
34, 6' 38.050000", 117, 12' 12.240000"

JN: 13635 Study Area Photos



L7_E
34, 6' 17.570000", 117, 15' 34.830000"



L7_N
34, 6' 17.380000", 117, 15' 35.320000"



L7_S
34, 6' 17.500000", 117, 15' 34.800000"



L7_W
34, 6' 17.490000", 117, 15' 34.830000"



L8_E
34, 6' 37.390000", 117, 15' 40.430000"



L8_N
34, 6' 36.550000", 117, 15' 41.170000"

JN: 13635 Study Area Photos



L8_S
34, 6' 37.470000", 117, 15' 40.400000"



L8_W
34, 6' 37.490000", 117, 15' 40.430000"

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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24-Hour Noise Level Measurement Summary

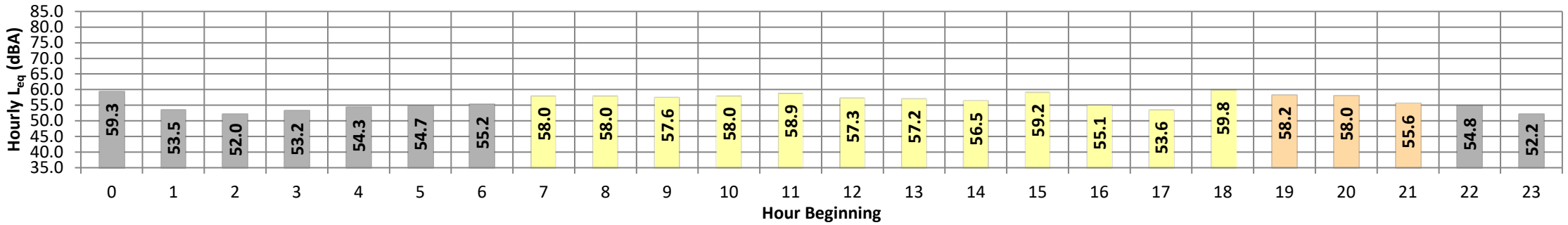
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L1 - Located north of the Project site in Indian Springs High School at 650 N Del Rosa Drive.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	59.3	68.7	60.3	68.1	67.7	66.8	66.0	62.5	61.3	60.6	60.5	60.4	59.3	10.0	69.3
	1	53.5	60.7	49.5	59.9	59.3	58.0	57.2	53.8	51.8	50.1	49.9	49.6	53.5	10.0	63.5
	2	52.0	55.7	50.5	55.3	55.0	54.2	53.5	52.3	51.6	50.8	50.7	50.5	52.0	10.0	62.0
	3	53.2	57.8	50.6	57.4	57.0	56.3	55.8	53.8	52.3	51.0	50.9	50.7	53.2	10.0	63.2
	4	54.3	60.6	51.3	60.1	59.5	58.0	57.1	54.4	53.3	51.9	51.6	51.4	54.3	10.0	64.3
	5	54.7	59.0	52.3	58.6	58.2	57.5	57.1	55.3	54.0	52.9	52.7	52.4	54.7	10.0	64.7
	6	55.2	61.8	52.3	61.2	60.9	60.4	59.7	54.5	53.7	52.7	52.6	52.4	55.2	10.0	65.2
Day	7	58.0	67.1	52.4	66.5	66.2	65.4	64.3	55.6	54.3	52.9	52.7	52.5	58.0	0.0	58.0
	8	58.0	67.4	49.4	67.2	66.9	66.1	64.7	55.4	52.1	49.9	49.7	49.5	58.0	0.0	58.0
	9	57.6	67.2	51.2	66.5	66.1	64.7	63.8	55.6	53.7	51.7	51.5	51.3	57.6	0.0	57.6
	10	58.0	67.2	49.8	66.9	66.4	65.1	64.0	57.5	53.2	50.7	50.3	49.9	58.0	0.0	58.0
	11	58.9	69.2	51.4	68.6	68.2	67.5	66.0	54.5	53.4	52.0	51.8	51.5	58.9	0.0	58.9
	12	57.3	67.2	50.0	66.6	66.3	65.5	63.9	53.8	52.4	50.7	50.4	50.1	57.3	0.0	57.3
	13	57.2	66.2	50.7	65.7	65.3	64.5	63.2	56.1	53.4	51.4	51.1	50.8	57.2	0.0	57.2
	14	56.5	67.0	48.3	66.2	65.9	65.1	63.5	52.3	50.7	49.0	48.8	48.4	56.5	0.0	56.5
	15	59.2	70.2	48.9	69.9	69.6	67.3	65.1	55.3	52.3	49.7	49.3	49.0	59.2	0.0	59.2
	16	55.1	64.9	47.7	64.3	64.0	62.0	60.1	54.4	51.2	48.6	48.2	47.8	55.1	0.0	55.1
	17	53.6	62.5	47.1	62.1	61.6	59.9	58.0	53.5	50.5	47.9	47.5	47.2	53.6	0.0	53.6
	18	59.8	72.3	49.1	71.8	70.7	67.3	63.9	57.3	53.3	49.9	49.6	49.2	59.8	0.0	59.8
Evening	19	58.2	66.8	52.9	66.4	66.0	64.2	62.4	58.0	55.5	53.5	53.3	53.0	58.2	5.0	63.2
	20	58.0	63.2	55.8	62.9	62.5	61.5	60.6	58.1	57.0	56.3	56.2	55.9	58.0	5.0	63.0
	21	55.6	60.4	52.1	59.9	59.4	58.5	58.1	56.3	55.0	52.6	52.4	52.2	55.6	5.0	60.6
Night	22	54.8	61.3	51.4	60.7	60.2	59.0	57.8	55.1	53.5	51.9	51.7	51.5	54.8	10.0	64.8
	23	52.2	55.9	49.9	55.3	54.9	54.2	53.8	52.8	51.9	50.6	50.3	50.1	52.2	10.0	62.2

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	53.6	62.5	47.1	62.1	61.6	59.9	58.0	52.3	50.5	47.9	47.5	47.2
	Max	59.8	72.3	52.4	71.8	70.7	67.5	66.0	57.5	54.3	52.9	52.7	52.5
Energy Average		57.7	Average:		66.9	66.4	65.0	63.4	55.1	52.5	50.4	50.1	49.8
Evening	Min	55.6	60.4	52.1	59.9	59.4	58.5	58.1	56.3	55.0	52.6	52.4	52.2
	Max	58.2	66.8	55.8	66.4	66.0	64.2	62.4	58.1	57.0	56.3	56.2	55.9
Energy Average		57.4	Average:		63.1	62.6	61.4	60.4	57.5	55.8	54.1	53.9	53.7
Night	Min	52.0	55.7	49.5	55.3	54.9	54.2	53.5	52.3	51.6	50.1	49.9	49.6
	Max	59.3	68.7	60.3	68.1	67.7	66.8	66.0	62.5	61.3	60.6	60.5	60.4
Energy Average		54.9	Average:		59.6	59.2	58.3	57.6	54.9	53.7	52.5	52.3	52.1

L_{eq} (dBA)		
24-Hour	*Daytime*	*Nighttime*
56.8	**57.7**	**54.9**

24-Hour CNEL (dBA)

62.3

24-Hour Noise Level Measurement Summary

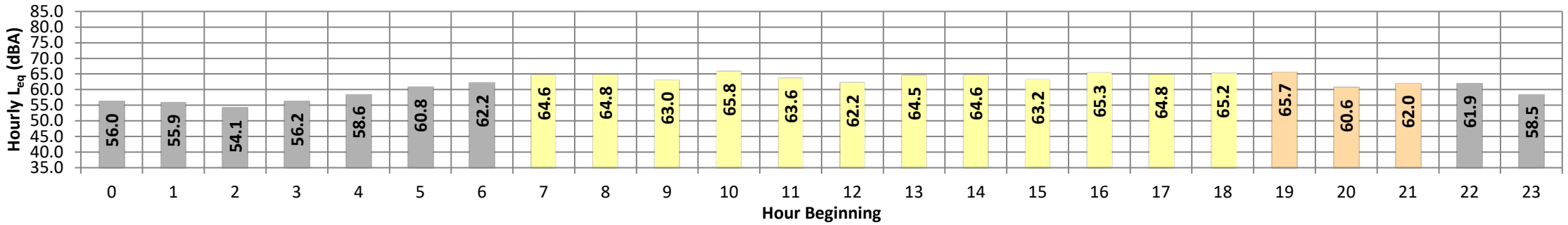
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L2 - Located north of the Project site on 6th Street near existing single family residential home at 7891 Bonnie Street.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	56.0	68.8	45.0	68.4	67.5	63.8	60.7	50.3	47.2	45.6	45.4	45.1	56.0	10.0	66.0
	1	55.9	68.7	46.8	68.3	67.3	63.0	59.2	52.0	49.3	47.5	47.2	46.9	55.9	10.0	65.9
	2	54.1	64.1	49.8	63.8	63.0	59.4	56.6	53.0	51.7	50.4	50.2	50.0	54.1	10.0	64.1
	3	56.2	67.7	49.7	67.3	66.5	63.0	60.0	53.7	51.8	50.3	50.0	49.7	56.2	10.0	66.2
	4	58.6	69.9	51.8	69.6	68.7	65.0	61.7	56.4	54.9	52.5	52.2	51.9	58.6	10.0	68.6
	5	60.8	72.0	54.1	71.6	70.8	67.4	64.7	58.5	56.7	54.8	54.5	54.2	60.8	10.0	70.8
	6	62.2	73.1	56.2	72.5	71.6	68.1	65.8	60.8	58.8	57.0	56.7	56.3	62.2	10.0	72.2
Day	7	64.6	75.3	58.3	74.7	73.8	71.0	68.6	63.3	60.9	59.0	58.7	58.3	64.6	0.0	64.6
	8	64.8	73.2	62.2	72.7	71.8	68.8	66.9	64.3	63.5	62.6	62.5	62.3	64.8	0.0	64.8
	9	63.0	73.7	54.7	73.4	72.8	70.2	68.0	61.0	58.0	55.5	55.2	54.9	63.0	0.0	63.0
	10	65.8	78.5	54.1	78.1	77.1	73.4	70.1	61.8	57.7	55.0	54.6	54.2	65.8	0.0	65.8
	11	63.6	76.1	51.9	75.6	74.7	71.0	68.1	60.4	56.2	52.8	52.4	52.0	63.6	0.0	63.6
	12	62.2	74.2	52.3	73.8	73.0	69.5	66.7	59.2	55.5	53.2	52.8	52.5	62.2	0.0	62.2
	13	64.5	76.9	52.0	76.5	75.6	72.4	69.5	60.5	56.0	52.9	52.5	52.1	64.5	0.0	64.5
	14	64.6	75.8	52.9	75.4	74.7	72.5	70.7	61.3	57.6	54.3	53.7	53.2	64.6	0.0	64.6
	15	63.2	75.9	47.3	75.3	74.0	70.4	68.1	61.0	54.9	48.5	48.0	47.5	63.2	0.0	63.2
	16	65.3	78.5	47.5	77.7	76.2	72.7	70.2	62.1	55.7	48.7	48.2	47.7	65.3	0.0	65.3
	17	64.8	77.1	49.0	76.7	75.7	72.2	69.8	62.1	55.4	51.0	50.3	49.4	64.8	0.0	64.8
	18	65.2	75.6	54.4	75.2	74.4	71.4	69.6	64.7	61.7	57.1	56.0	54.6	65.2	0.0	65.2
Evening	19	65.7	78.7	53.6	78.1	76.9	72.8	69.6	62.6	59.1	55.0	54.3	53.8	65.7	5.0	70.7
	20	60.6	72.6	48.2	72.2	71.3	68.1	65.6	58.1	52.8	49.2	48.8	48.4	60.6	5.0	65.6
	21	62.0	74.2	51.1	73.7	72.7	69.1	67.1	58.8	54.5	52.0	51.7	51.3	62.0	5.0	67.0
Night	22	61.9	74.1	47.2	73.6	72.8	69.9	67.7	58.3	52.3	48.1	47.7	47.4	61.9	10.0	71.9
	23	58.5	70.5	46.7	70.0	69.1	66.2	63.6	55.8	51.4	47.8	47.2	46.9	58.5	10.0	68.5

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	62.2	73.2	47.3	72.7	71.8	68.8	66.7	59.2	54.9	48.5	48.0	47.5
	Max	65.8	78.5	62.2	78.1	77.1	73.4	70.7	64.7	63.5	62.6	62.5	62.3
Energy Average		64.4	Average:		75.4	74.5	71.3	68.8	61.8	57.7	54.2	53.7	53.2
Evening	Min	60.6	72.6	48.2	72.2	71.3	68.1	65.6	58.1	52.8	49.2	48.8	48.4
	Max	65.7	78.7	53.6	78.1	76.9	72.8	69.6	62.6	59.1	55.0	54.3	53.8
Energy Average		63.3	Average:		74.7	73.6	70.0	67.4	59.8	55.5	52.1	51.6	51.2
Night	Min	54.1	64.1	45.0	63.8	63.0	59.4	56.6	50.3	47.2	45.6	45.4	45.1
	Max	62.2	74.1	56.2	73.6	72.8	69.9	67.7	60.8	58.8	57.0	56.7	56.3
Energy Average		59.1	Average:		69.5	68.6	65.1	62.2	55.4	52.7	50.4	50.1	49.8

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
62.9	64.2	59.1

24-Hour CNEL (dBA)
67.2

24-Hour Noise Level Measurement Summary

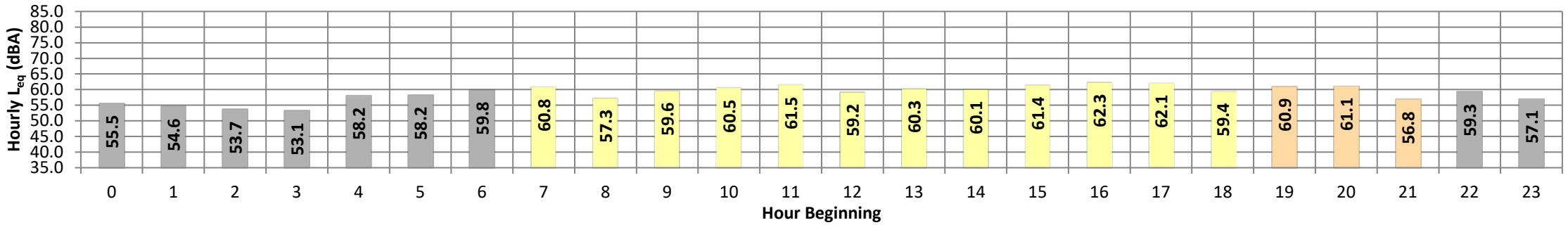
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L3 - Located north of the Project site on 6th Street near existing single-family residential home at 7904 Roberts Street.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	55.5	68.2	43.3	67.7	66.8	63.4	60.4	50.4	45.9	43.9	43.6	43.4	55.5	10.0	65.5
	1	54.6	76.7	45.2	75.3	73.3	68.2	64.2	51.5	47.3	45.8	45.6	45.3	54.6	10.0	64.6
	2	53.7	66.6	44.9	66.2	65.3	61.1	57.1	48.7	46.9	45.5	45.3	45.0	53.7	10.0	63.7
	3	53.1	64.0	45.3	63.6	62.9	59.8	57.3	52.2	48.8	46.0	45.7	45.4	53.1	10.0	63.1
	4	58.2	69.8	51.3	69.3	68.3	64.9	62.1	56.3	53.1	51.9	51.7	51.4	58.2	10.0	68.2
	5	58.2	70.3	48.3	69.9	69.1	65.9	63.2	54.1	51.2	49.0	48.7	48.4	58.2	10.0	68.2
	6	59.8	71.6	50.0	71.1	70.1	67.0	64.9	57.1	53.5	50.9	50.5	50.1	59.8	10.0	69.8
Day	7	60.8	72.9	51.2	72.3	71.3	67.9	65.8	58.0	54.2	52.0	51.7	51.3	60.8	0.0	60.8
	8	57.3	69.1	45.8	68.7	67.8	64.8	62.4	55.0	49.7	46.5	46.2	45.9	57.3	0.0	57.3
	9	59.6	70.5	45.3	70.1	69.4	66.9	65.0	58.3	52.5	47.1	46.3	45.4	59.6	0.0	59.6
	10	60.5	73.2	47.1	72.7	71.5	68.0	64.9	57.5	52.5	48.2	47.7	47.2	60.5	0.0	60.5
	11	61.5	71.9	50.0	71.5	70.8	68.6	66.9	60.6	56.2	51.7	51.0	50.2	61.5	0.0	61.5
	12	59.2	70.5	47.8	70.0	69.0	66.0	64.0	58.4	53.8	49.3	48.6	48.0	59.2	0.0	59.2
	13	60.3	71.9	46.8	71.3	70.5	67.8	65.6	58.4	53.5	48.5	47.8	46.9	60.3	0.0	60.3
	14	60.1	72.3	46.0	71.7	70.7	67.4	64.9	57.7	52.4	47.4	46.8	46.2	60.1	0.0	60.1
	15	61.4	72.8	46.6	72.4	71.5	68.9	67.0	59.4	53.0	48.3	47.7	46.9	61.4	0.0	61.4
	16	62.3	73.8	45.8	73.1	72.4	70.0	68.2	60.9	53.4	47.3	46.7	46.0	62.3	0.0	62.3
	17	62.1	74.1	44.7	73.6	72.6	69.6	67.5	60.2	52.1	45.9	45.5	44.9	62.1	0.0	62.1
	18	59.4	71.4	43.1	71.0	70.0	67.0	64.9	56.8	48.9	44.3	43.8	43.2	59.4	0.0	59.4
Evening	19	60.9	73.3	45.1	72.7	71.7	68.4	65.8	58.7	52.0	46.2	45.8	45.2	60.9	5.0	65.9
	20	61.1	74.2	44.0	73.8	72.8	69.0	65.4	56.2	49.3	45.1	44.7	44.1	61.1	5.0	66.1
	21	56.8	69.0	43.5	68.5	67.5	64.5	62.2	53.5	48.3	44.5	44.1	43.6	56.8	5.0	61.8
Night	22	59.3	71.4	44.0	70.9	70.0	67.2	64.7	56.2	49.3	45.0	44.6	44.2	59.3	10.0	69.3
	23	57.1	69.2	43.6	68.9	68.2	65.1	62.4	52.3	46.6	44.3	44.0	43.7	57.1	10.0	67.1

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	57.3	69.1	43.1	68.7	67.8	64.8	62.4	55.0	48.9	44.3	43.8	43.2
	Max	62.3	74.1	51.2	73.6	72.6	70.0	68.2	60.9	56.2	52.0	51.7	51.3
Energy Average		60.6	Average:		71.5	70.6	67.7	65.6	58.4	52.7	48.0	47.5	46.9
Evening	Min	56.8	69.0	43.5	68.5	67.5	64.5	62.2	53.5	48.3	44.5	44.1	43.6
	Max	61.1	74.2	45.1	73.8	72.8	69.0	65.8	58.7	52.0	46.2	45.8	45.2
Energy Average		60.0	Average:		71.7	70.7	67.3	64.5	56.2	49.9	45.3	44.9	44.3
Night	Min	53.1	64.0	43.3	63.6	62.9	59.8	57.1	48.7	45.9	43.9	43.6	43.4
	Max	59.8	76.7	51.3	75.3	73.3	68.2	64.9	57.1	53.5	51.9	51.7	51.4
Energy Average		57.2	Average:		69.2	68.2	64.7	61.8	53.2	49.2	46.9	46.6	46.3

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
59.5	60.5	57.2

24-Hour CNEL (dBA)
64.7

24-Hour Noise Level Measurement Summary

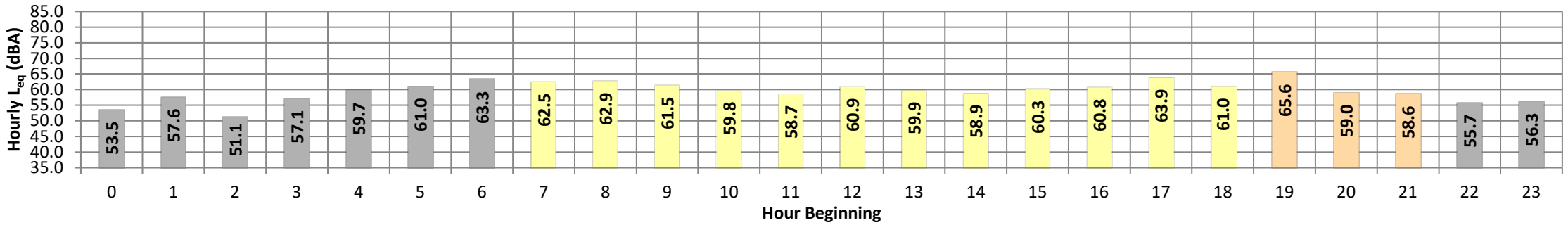
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L4 - Located north of the Project site on Central Avenue near the Highland Family YMCA at 7793 Central Avenue.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	53.5	64.2	47.3	63.9	63.3	60.5	58.0	51.9	48.9	47.6	47.5	47.4	53.5	10.0	63.5
	1	57.6	69.8	49.8	69.2	68.4	64.5	62.1	53.9	51.2	50.2	50.0	49.9	57.6	10.0	67.6
	2	51.1	61.2	45.4	60.9	60.2	57.6	55.6	49.4	47.6	46.1	45.9	45.5	51.1	10.0	61.1
	3	57.1	68.7	47.8	68.3	67.6	64.8	61.9	54.8	50.4	48.5	48.1	47.9	57.1	10.0	67.1
	4	59.7	71.4	50.8	71.1	70.4	67.5	64.5	56.4	52.9	51.2	51.0	50.8	59.7	10.0	69.7
	5	61.0	72.2	50.7	71.9	71.3	68.5	65.8	58.7	54.7	51.6	51.2	50.8	61.0	10.0	71.0
	6	63.3	75.5	50.1	75.0	73.9	71.4	68.4	59.8	55.9	51.2	50.8	50.2	63.3	10.0	73.3
Day	7	62.5	73.9	52.2	73.6	73.0	70.0	67.1	60.3	56.2	53.1	52.8	52.4	62.5	0.0	62.5
	8	62.9	74.6	49.1	74.3	73.5	70.4	67.7	60.8	55.3	50.6	49.8	49.2	62.9	0.0	62.9
	9	61.5	71.8	47.1	71.4	70.9	68.9	67.2	60.9	54.3	48.6	47.9	47.3	61.5	0.0	61.5
	10	59.8	71.6	46.7	71.2	70.3	67.3	64.7	57.7	51.7	47.7	47.2	46.8	59.8	0.0	59.8
	11	58.7	69.4	46.2	69.1	68.3	65.7	63.9	57.9	52.4	47.1	46.7	46.3	58.7	0.0	58.7
	12	60.9	72.8	44.7	72.4	71.5	68.3	65.7	59.4	52.7	46.1	45.5	44.9	60.9	0.0	60.9
	13	59.9	71.3	45.3	70.8	70.1	67.2	65.0	58.5	51.9	46.4	45.9	45.5	59.9	0.0	59.9
	14	58.9	70.2	45.7	69.8	69.0	66.0	64.1	57.7	52.0	46.8	46.2	45.8	58.9	0.0	58.9
	15	60.3	70.6	51.2	70.2	69.5	67.1	65.1	59.8	55.5	52.0	51.7	51.3	60.3	0.0	60.3
	16	60.8	72.5	47.0	72.0	71.0	67.5	65.7	59.7	54.2	48.5	47.8	47.2	60.8	0.0	60.8
	17	63.9	74.8	46.3	74.5	74.0	72.0	69.7	61.7	56.1	48.1	47.2	46.5	63.9	0.0	63.9
	18	61.0	72.6	46.0	72.1	71.1	68.3	65.8	59.7	54.3	48.0	47.0	46.2	61.0	0.0	61.0
Evening	19	65.6	79.2	47.6	78.8	77.8	73.3	69.3	59.3	54.2	49.3	48.6	47.8	65.6	5.0	70.6
	20	59.0	70.9	44.3	70.5	69.6	66.5	64.1	56.6	51.1	45.7	45.0	44.5	59.0	5.0	64.0
	21	58.6	70.0	45.8	69.6	68.9	66.2	63.4	57.1	51.4	47.2	46.6	45.9	58.6	5.0	63.6
Night	22	55.7	66.6	44.8	66.2	65.6	62.9	61.2	53.9	49.3	45.9	45.5	44.9	55.7	10.0	65.7
	23	56.3	68.8	44.4	68.3	67.5	64.6	61.1	50.7	47.7	45.1	44.8	44.5	56.3	10.0	66.3

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	58.7	69.4	44.7	69.1	68.3	65.7	63.9	57.7	51.7	46.1	45.5	44.9
	Max	63.9	74.8	52.2	74.5	74.0	72.0	69.7	61.7	56.2	53.1	52.8	52.4
Energy Average		61.2	Average:		71.8	71.0	68.2	66.0	59.5	53.9	48.6	48.0	47.4
Evening	Min	58.6	70.0	44.3	69.6	68.9	66.2	63.4	56.6	51.1	45.7	45.0	44.5
	Max	65.6	79.2	47.6	78.8	77.8	73.3	69.3	59.3	54.2	49.3	48.6	47.8
Energy Average		62.3	Average:		72.9	72.1	68.7	65.6	57.7	52.2	47.4	46.8	46.1
Night	Min	51.1	61.2	44.4	60.9	60.2	57.6	55.6	49.4	47.6	45.1	44.8	44.5
	Max	63.3	75.5	50.8	75.0	73.9	71.4	68.4	59.8	55.9	51.6	51.2	50.8
Energy Average		58.6	Average:		68.3	67.6	64.7	62.1	54.4	51.0	48.6	48.3	48.0

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
60.6	61.4	58.6

24-Hour CNEL (dBA)
66.1

24-Hour Noise Level Measurement Summary

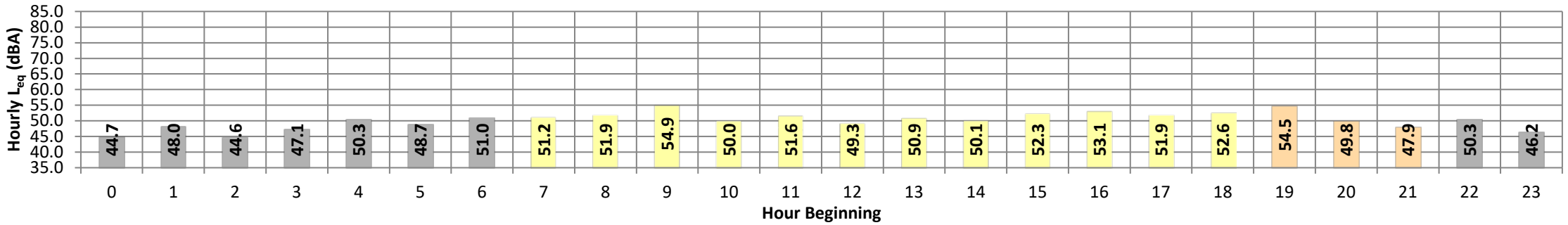
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L5 - Located north of the Project site by the Highland Branch Library at 7863 Central Avenue.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	44.7	51.2	41.4	50.8	50.3	49.0	47.8	44.8	43.4	42.0	41.8	41.5	44.7	10.0	54.7
	1	48.0	57.1	42.7	56.8	56.2	54.1	52.2	47.2	45.0	43.4	43.1	42.8	48.0	10.0	58.0
	2	44.6	50.3	41.5	49.9	49.5	48.2	47.4	45.1	43.6	42.2	41.9	41.6	44.6	10.0	54.6
	3	47.1	54.5	41.8	54.0	53.5	52.1	51.2	47.8	44.7	42.4	42.2	41.9	47.1	10.0	57.1
	4	50.3	61.5	42.0	61.1	60.4	57.9	54.3	48.1	44.9	42.7	42.4	42.1	50.3	10.0	60.3
	5	48.7	56.2	43.9	55.8	55.5	54.1	52.7	49.0	46.6	44.7	44.4	44.0	48.7	10.0	58.7
	6	51.0	60.1	44.9	59.8	59.0	57.4	55.5	50.4	47.8	45.7	45.4	45.0	51.0	10.0	61.0
Day	7	51.2	59.8	46.4	59.2	58.7	56.7	54.9	50.9	49.0	47.1	46.8	46.5	51.2	0.0	51.2
	8	51.9	70.6	46.1	69.9	68.9	68.1	66.8	61.4	58.4	47.9	46.7	46.3	51.9	0.0	51.9
	9	54.9	62.7	44.6	62.4	62.0	61.4	60.6	56.0	49.7	45.7	45.3	44.7	54.9	0.0	54.9
	10	50.0	59.3	44.8	58.7	57.8	55.7	53.9	49.7	47.5	45.6	45.2	44.9	50.0	0.0	50.0
	11	51.6	58.9	46.5	58.4	57.8	56.4	55.4	52.0	49.7	47.4	47.0	46.6	51.6	0.0	51.6
	12	49.3	58.0	43.7	57.5	56.9	55.1	53.4	49.2	46.5	44.4	44.1	43.9	49.3	0.0	49.3
	13	50.9	61.9	43.5	61.2	60.5	58.2	56.5	48.4	46.1	44.1	43.9	43.6	50.9	0.0	50.9
	14	50.1	58.4	45.1	58.0	57.4	55.8	53.9	50.2	48.0	45.8	45.5	45.2	50.1	0.0	50.1
	15	52.3	61.9	45.0	61.4	60.7	58.5	57.3	52.2	48.2	45.8	45.4	45.1	52.3	0.0	52.3
	16	53.1	61.5	44.6	61.1	60.6	59.1	57.9	53.5	49.2	45.4	45.1	44.7	53.1	0.0	53.1
	17	51.9	60.2	44.3	59.8	59.2	57.7	56.6	52.3	48.6	45.1	44.7	44.4	51.9	0.0	51.9
	18	52.6	61.2	43.3	60.9	60.5	59.1	57.4	53.4	48.7	44.0	43.7	43.4	52.6	0.0	52.6
Evening	19	54.5	66.2	44.3	65.9	65.4	62.2	58.5	51.7	49.1	45.1	44.7	44.4	54.5	5.0	59.5
	20	49.8	58.5	40.6	58.1	57.8	56.7	55.6	49.2	45.2	41.5	41.1	40.7	49.8	5.0	54.8
	21	47.9	56.8	40.6	56.5	55.9	53.8	52.0	47.9	45.0	41.8	41.3	40.8	47.9	5.0	52.9
Night	22	50.3	60.6	40.5	59.8	59.2	57.8	56.0	47.5	44.4	41.5	41.1	40.7	50.3	10.0	60.3
	23	46.2	54.2	40.4	53.7	53.1	51.9	50.5	46.4	43.9	41.3	40.9	40.5	46.2	10.0	56.2

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	49.3	58.0	43.3	57.5	56.9	55.1	53.4	48.4	46.1	44.0	43.7	43.4
	Max	54.9	70.6	46.5	69.9	68.9	68.1	66.8	61.4	58.4	47.9	47.0	46.6
Energy Average		51.9	Average:		60.7	60.1	58.5	57.1	52.4	49.1	45.7	45.3	44.9
Evening	Min	47.9	56.8	40.6	56.5	55.9	53.8	52.0	47.9	45.0	41.5	41.1	40.7
	Max	54.5	66.2	44.3	65.9	65.4	62.2	58.5	51.7	49.1	45.1	44.7	44.4
Energy Average		51.7	Average:		60.2	59.7	57.6	55.4	49.6	46.4	42.8	42.4	42.0
Night	Min	44.6	50.3	40.4	49.9	49.5	48.2	47.4	44.8	43.4	41.3	40.9	40.5
	Max	51.0	61.5	44.9	61.1	60.4	57.9	56.0	50.4	47.8	45.7	45.4	45.0
Energy Average		48.4	Average:		55.7	55.2	53.6	52.0	47.4	44.9	42.9	42.6	42.3

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
50.9	51.9	48.4

24-Hour CNEL (dBA)
56.0

24-Hour Noise Level Measurement Summary

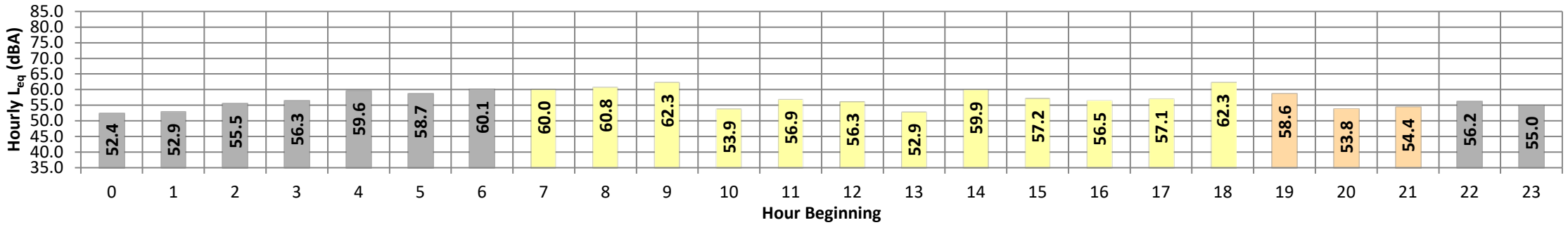
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L6 - Located northeast of the Project site on Powell Drive near existing single-family residential home at 7885 Church Avenue.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	52.4	61.3	47.5	60.9	60.0	57.3	55.6	52.2	50.5	48.2	47.9	47.6	52.4	10.0	62.4
	1	52.9	59.7	48.4	59.1	58.5	57.2	56.4	53.5	51.5	49.3	48.9	48.6	52.9	10.0	62.9
	2	55.5	63.1	51.1	62.7	62.1	60.5	58.9	55.6	53.9	51.9	51.6	51.2	55.5	10.0	65.5
	3	56.3	65.3	50.0	65.0	64.4	62.7	61.0	55.9	53.5	51.0	50.6	50.1	56.3	10.0	66.3
	4	59.6	70.7	52.5	70.2	69.0	65.4	64.0	57.2	55.2	53.3	52.9	52.6	59.6	10.0	69.6
	5	58.7	63.1	55.7	62.7	62.3	61.3	60.7	59.4	58.3	56.5	56.2	55.9	58.7	10.0	68.7
	6	60.1	67.3	56.5	66.8	65.8	63.7	62.5	60.5	59.1	57.3	56.9	56.6	60.1	10.0	70.1
Day	7	60.0	68.7	56.2	68.4	67.6	64.7	62.9	59.6	58.3	56.8	56.5	56.3	60.0	0.0	60.0
	8	60.8	70.8	49.4	70.4	70.0	68.7	67.6	58.4	52.3	50.0	49.8	49.5	60.8	0.0	60.8
	9	62.3	72.8	46.7	72.4	71.9	70.1	68.1	60.6	53.8	47.5	47.2	46.8	62.3	0.0	62.3
	10	53.9	66.1	44.1	65.6	64.8	61.5	58.4	50.1	47.0	44.8	44.5	44.2	53.9	0.0	53.9
	11	56.9	66.7	45.6	66.2	65.5	62.9	61.2	57.2	53.8	46.6	46.1	45.7	56.9	0.0	56.9
	12	56.3	67.4	45.6	67.0	66.1	63.3	60.7	55.2	51.6	47.1	46.1	45.7	56.3	0.0	56.3
	13	52.9	63.2	46.6	62.7	61.9	59.4	56.9	51.6	49.4	47.4	47.1	46.8	52.9	0.0	52.9
	14	59.9	72.1	46.6	71.9	71.3	68.4	64.4	55.3	51.2	47.7	47.3	46.8	59.9	0.0	59.9
	15	57.2	66.7	46.5	66.3	65.8	63.9	62.5	57.2	52.4	47.5	47.1	46.7	57.2	0.0	57.2
	16	56.5	66.3	48.7	65.9	65.2	63.1	61.3	55.8	52.0	49.5	49.2	48.8	56.5	0.0	56.5
	17	57.1	65.8	48.1	65.5	64.9	63.2	62.0	57.7	53.6	49.0	48.7	48.2	57.1	0.0	57.1
	18	62.3	75.7	48.0	75.2	74.0	70.6	66.8	56.4	51.6	48.9	48.6	48.1	62.3	0.0	62.3
Evening	19	58.6	66.6	54.9	66.2	65.3	63.2	61.9	58.7	56.9	55.5	55.3	55.0	58.6	5.0	63.6
	20	53.8	63.9	48.0	63.2	62.6	59.7	57.4	53.5	50.7	48.8	48.5	48.1	53.8	5.0	58.8
	21	54.4	64.6	47.2	64.1	63.2	60.6	58.6	53.8	50.3	48.2	47.7	47.3	54.4	5.0	59.4
Night	22	56.2	67.8	46.3	67.5	67.1	63.8	60.3	52.9	49.5	47.2	46.8	46.4	56.2	10.0	66.2
	23	55.0	65.6	48.7	65.1	63.9	60.8	58.5	54.3	52.1	49.5	49.1	48.9	55.0	10.0	65.0

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	52.9	63.2	44.1	62.7	61.9	59.4	56.9	50.1	47.0	44.8	44.5	44.2
	Max	62.3	75.7	56.2	75.2	74.0	70.6	68.1	60.6	58.3	56.8	56.5	56.3
Energy Average		58.9	Average:		68.1	67.4	65.0	62.7	56.3	52.2	48.6	48.2	47.8
Evening	Min	53.8	63.9	47.2	63.2	62.6	59.7	57.4	53.5	50.3	48.2	47.7	47.3
	Max	58.6	66.6	54.9	66.2	65.3	63.2	61.9	58.7	56.9	55.5	55.3	55.0
Energy Average		56.2	Average:		64.5	63.7	61.2	59.3	55.4	52.7	50.8	50.5	50.2
Night	Min	52.4	59.7	46.3	59.1	58.5	57.2	55.6	52.2	49.5	47.2	46.8	46.4
	Max	60.1	70.7	56.5	70.2	69.0	65.4	64.0	60.5	59.1	57.3	56.9	56.6
Energy Average		57.1	Average:		64.4	63.7	61.4	59.8	55.7	53.7	51.6	51.2	50.9

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
58.0	58.5	57.1

24-Hour CNEL (dBA)

63.9

24-Hour Noise Level Measurement Summary

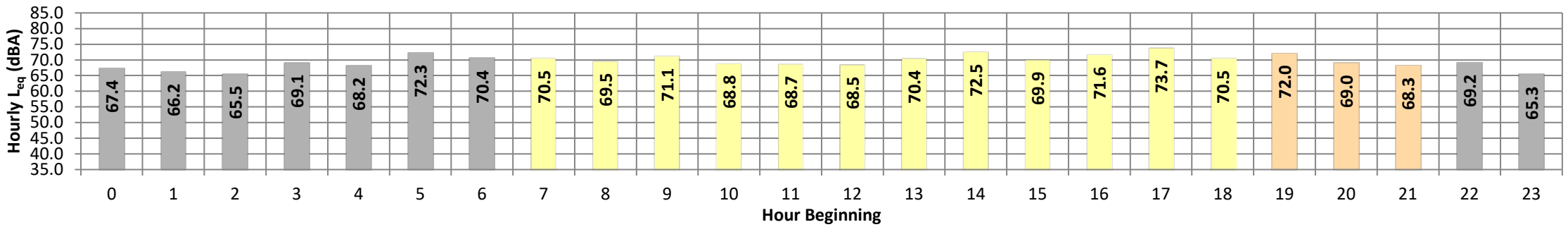
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L7 - Located southwest of the Project site on Tippecanoe Avenue across from Trinity Christian Fellowship Church at 8174 Tippecanoe Avenue.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	67.4	79.5	53.6	79.0	78.1	75.1	72.2	64.8	59.5	54.9	54.2	53.8	67.4	10.0	77.4
	1	66.2	77.0	55.5	76.3	75.5	73.3	71.4	65.5	60.6	56.4	56.0	55.6	66.2	10.0	76.2
	2	65.5	76.1	56.6	75.6	74.9	73.1	71.2	63.4	59.7	57.3	57.0	56.7	65.5	10.0	75.5
	3	69.1	81.0	57.2	80.5	79.5	76.5	74.2	66.2	62.1	58.3	57.8	57.3	69.1	10.0	79.1
	4	68.2	78.3	59.0	77.8	77.0	74.7	72.8	67.8	64.1	60.2	59.6	59.1	68.2	10.0	78.2
	5	72.3	84.6	60.2	84.1	83.0	79.5	76.7	69.2	65.4	61.4	61.0	60.4	72.3	10.0	82.3
	6	70.4	80.8	61.0	80.3	79.7	76.9	74.6	69.9	66.7	62.3	61.6	61.1	70.4	10.0	80.4
Day	7	70.5	80.0	60.7	79.5	78.9	77.0	75.7	70.3	66.3	62.0	61.3	60.8	70.5	0.0	70.5
	8	69.5	79.7	58.7	79.3	78.6	76.2	74.2	68.8	65.4	60.4	59.6	58.8	69.5	0.0	69.5
	9	71.1	82.5	56.9	82.3	81.7	79.1	75.9	68.7	63.8	58.5	57.7	57.1	71.1	0.0	71.1
	10	68.8	79.0	57.7	78.5	77.6	75.4	73.7	68.6	64.3	59.5	58.7	57.9	68.8	0.0	68.8
	11	68.7	79.3	57.4	78.9	78.0	75.1	73.3	68.3	64.0	59.3	58.3	57.5	68.7	0.0	68.7
	12	68.5	79.2	56.8	78.8	77.9	75.3	73.3	67.9	63.5	58.9	57.7	57.0	68.5	0.0	68.5
	13	70.4	82.2	57.4	81.4	80.3	77.1	74.8	69.6	64.7	59.1	58.3	57.6	70.4	0.0	70.4
	14	72.5	85.4	57.6	84.9	83.8	79.9	76.4	69.7	65.0	59.2	58.4	57.8	72.5	0.0	72.5
	15	69.9	79.3	58.5	78.9	78.2	76.5	75.1	70.1	65.9	60.3	59.5	58.7	69.9	0.0	69.9
	16	71.6	83.1	59.6	82.4	81.4	78.2	75.9	70.8	66.9	61.6	60.7	59.8	71.6	0.0	71.6
	17	73.7	86.7	58.7	86.3	85.3	81.2	77.5	70.0	65.9	60.6	59.8	58.9	73.7	0.0	73.7
	18	70.5	81.9	58.8	81.1	80.0	77.2	75.1	69.7	65.3	60.3	59.5	58.9	70.5	0.0	70.5
Evening	19	72.0	84.1	59.4	83.7	82.6	79.3	76.6	69.6	65.9	60.9	60.2	59.6	72.0	5.0	77.0
	20	69.0	79.7	58.1	79.3	78.5	76.2	74.1	67.6	63.7	59.4	58.8	58.3	69.0	5.0	74.0
	21	68.3	79.2	58.5	78.7	77.7	75.3	73.4	66.7	62.9	59.7	59.2	58.6	68.3	5.0	73.3
Night	22	69.2	80.7	57.1	80.4	79.6	76.8	74.1	66.2	62.6	58.8	58.1	57.4	69.2	10.0	79.2
	23	65.3	75.9	55.4	75.4	74.5	71.8	70.2	64.8	60.4	56.6	56.1	55.6	65.3	10.0	75.3

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	68.5	79.0	56.8	78.5	77.6	75.1	73.3	67.9	63.5	58.5	57.7	57.0
	Max	73.7	86.7	60.7	86.3	85.3	81.2	77.5	70.8	66.9	62.0	61.3	60.8
Energy Average		70.8	Average:		81.0	80.2	77.3	75.1	69.4	65.1	60.0	59.1	58.4
Evening	Min	68.3	79.2	58.1	78.7	77.7	75.3	73.4	66.7	62.9	59.4	58.8	58.3
	Max	72.0	84.1	59.4	83.7	82.6	79.3	76.6	69.6	65.9	60.9	60.2	59.6
Energy Average		70.1	Average:		80.6	79.6	76.9	74.7	67.9	64.2	60.0	59.4	58.8
Night	Min	65.3	75.9	53.6	75.4	74.5	71.8	70.2	63.4	59.5	54.9	54.2	53.8
	Max	72.3	84.6	61.0	84.1	83.0	79.5	76.7	69.9	66.7	62.3	61.6	61.1
Energy Average		68.8	Average:		78.8	78.0	75.3	73.0	66.4	62.3	58.5	57.9	57.4

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
70.0	70.6	68.8

24-Hour CNEL (dBA)
75.8

24-Hour Noise Level Measurement Summary

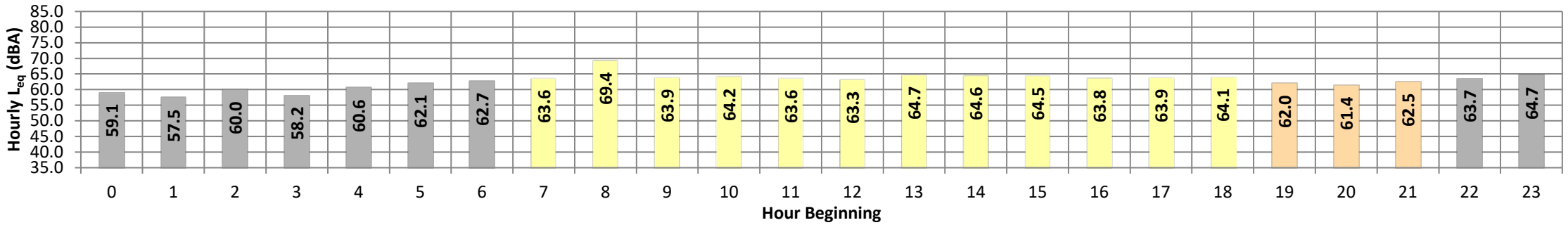
Date: Wednesday, September 09, 2020
Project: Airport Gateway Specific Plan

Location: L8 - Located northwest of the Project site on 6th Street and Tippecanoe Avenue.

Meter: Piccolo II

JN: 13635
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	59.1	69.7	47.4	69.3	68.8	67.0	65.1	56.6	52.1	48.4	48.0	47.6	59.1	10.0	69.1
	1	57.5	69.2	47.7	68.8	68.1	65.0	62.2	54.6	51.2	48.4	48.2	47.8	57.5	10.0	67.5
	2	60.0	70.8	49.5	70.5	70.1	67.9	65.8	56.7	53.3	50.3	50.0	49.6	60.0	10.0	70.0
	3	58.2	68.1	49.4	67.8	67.4	65.4	63.8	56.8	52.9	50.4	50.0	49.5	58.2	10.0	68.2
	4	60.6	71.4	49.9	71.2	70.7	68.6	65.4	58.6	54.6	51.2	50.6	50.0	60.6	10.0	70.6
	5	62.1	73.8	51.2	73.3	72.3	69.5	67.2	59.9	55.4	52.1	51.7	51.3	62.1	10.0	72.1
	6	62.7	73.0	51.4	72.7	72.3	70.1	67.8	61.7	57.1	52.5	52.0	51.5	62.7	10.0	72.7
Day	7	63.6	71.7	53.1	71.3	71.0	69.7	68.6	64.5	60.1	54.3	53.7	53.3	63.6	0.0	63.6
	8	69.4	78.5	56.7	78.3	77.9	76.2	74.6	69.4	65.7	58.6	57.7	56.9	69.4	0.0	69.4
	9	63.9	73.8	54.7	73.3	72.7	70.4	68.1	64.0	60.3	56.0	55.4	54.9	63.9	0.0	63.9
	10	64.2	74.9	52.9	74.4	73.7	71.2	69.3	63.3	58.9	54.6	53.8	53.1	64.2	0.0	64.2
	11	63.6	73.3	54.6	72.9	72.3	70.5	68.7	63.2	59.6	55.9	55.3	54.7	63.6	0.0	63.6
	12	63.3	73.5	53.4	73.1	72.5	70.2	68.1	62.5	59.0	54.9	54.2	53.5	63.3	0.0	63.3
	13	64.7	74.8	54.6	74.2	73.5	71.5	69.8	64.2	60.5	55.9	55.3	54.7	64.7	0.0	64.7
	14	64.6	75.0	53.5	74.5	73.9	71.6	70.2	63.8	58.7	54.8	54.2	53.6	64.6	0.0	64.6
	15	64.5	74.8	54.0	74.4	73.7	71.6	69.8	63.7	59.7	55.3	54.8	54.2	64.5	0.0	64.5
	16	63.8	72.9	53.3	72.6	72.0	70.2	68.6	64.0	60.0	54.9	54.2	53.5	63.8	0.0	63.8
	17	63.9	73.6	52.6	73.2	72.7	70.8	68.9	64.1	59.4	54.0	53.3	52.8	63.9	0.0	63.9
	18	64.1	75.1	50.2	74.5	73.9	71.5	69.3	63.0	58.0	52.3	51.2	50.4	64.1	0.0	64.1
Evening	19	62.0	72.0	50.7	71.6	70.8	69.0	67.4	61.7	57.3	52.4	51.7	51.0	62.0	5.0	67.0
	20	61.4	71.9	48.4	71.6	71.0	68.8	67.0	60.8	55.0	49.9	49.2	48.5	61.4	5.0	66.4
	21	62.5	72.2	51.8	71.8	71.3	69.2	67.6	62.6	57.3	52.7	52.3	51.9	62.5	5.0	67.5
Night	22	63.7	75.3	48.3	74.9	74.2	72.5	70.0	59.3	53.9	49.7	49.0	48.5	63.7	10.0	73.7
	23	64.7	79.1	47.9	78.1	76.8	71.9	67.9	57.8	53.4	49.1	48.5	48.1	64.7	10.0	74.7

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	63.3	71.7	50.2	71.3	71.0	69.7	68.1	62.5	58.0	52.3	51.2	50.4
	Max	69.4	78.5	56.7	78.3	77.9	76.2	74.6	69.4	65.7	58.6	57.7	56.9
Energy Average		64.8	Average:		73.9	73.3	71.3	69.5	64.1	60.0	55.1	54.4	53.8
Evening	Min	61.4	71.9	48.4	71.6	70.8	68.8	67.0	60.8	55.0	49.9	49.2	48.5
	Max	62.5	72.2	51.8	71.8	71.3	69.2	67.6	62.6	57.3	52.7	52.3	51.9
Energy Average		62.0	Average:		71.6	71.0	69.0	67.3	61.7	56.5	51.7	51.0	50.5
Night	Min	57.5	68.1	47.4	67.8	67.4	65.0	62.2	54.6	51.2	48.4	48.0	47.6
	Max	64.7	79.1	51.4	78.1	76.8	72.5	70.0	61.7	57.1	52.5	52.0	51.5
Energy Average		61.6	Average:		71.8	71.2	68.7	66.1	58.0	53.8	50.2	49.8	49.3

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
63.5	64.4	61.6

24-Hour CNEL (dBA)
68.8

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Waterman Avenue
Road Segment: Baseline Street to 5th Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,741	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,574	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.69	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-16.15	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.87	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	66.2	64.4	58.4	67.0	67.6
Medium Trucks:	60.5	59.0	52.6	51.1	59.5	59.8
Heavy Trucks:	64.0	62.6	53.6	54.8	63.2	63.3
Vehicle Noise:	70.1	68.3	65.0	60.5	69.0	69.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	93	200	431
CNEL:	46	99	214	462

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Tippecanoe Avenue
Road Segment: Baseline Street to 6th Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,006	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,201	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.14	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-19.97	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.70	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.4	57.3	66.0	66.6
Medium Trucks:	59.2	57.7	51.4	49.8	58.3	58.5
Heavy Trucks:	62.3	60.9	51.9	53.1	61.5	61.6
Vehicle Noise:	68.8	67.1	63.9	59.3	67.8	68.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	68	146	314
CNEL:	34	73	156	337

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Waterman Avenue
Road Segment: 5th Street to 3rd Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,528	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,753	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.98	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-15.86	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.58	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.2	66.4	60.3	69.0	69.6
Medium Trucks:	62.5	61.0	54.6	53.1	61.5	61.8
Heavy Trucks:	66.0	64.6	55.6	56.8	65.2	65.3
Vehicle Noise:	72.0	70.3	67.0	62.5	71.0	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	58	126	271	583
CNEL:	62	135	290	625

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Tippecanoe Avenue
Road Segment: 6th Street to 3rd Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,330	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,433	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.37	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-19.20	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.93	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.8	65.9	64.2	58.1	66.7	67.3
Medium Trucks:	60.0	58.5	52.1	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.6	53.9	62.2	62.4
Vehicle Noise:	69.6	67.8	64.7	60.0	68.6	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	35	76	164	353
CNEL:	38	82	176	379

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Tippecanoe Avenue
Road Segment: 3rd Street to Mill Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	28,362 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,836 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	67 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.60	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.24	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.97	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.6	69.7	68.0	61.9	70.5	71.1
Medium Trucks:	63.8	62.3	56.0	54.4	62.9	63.1
Heavy Trucks:	66.9	65.5	56.4	57.7	66.1	66.2
Vehicle Noise:	73.4	71.7	68.5	63.8	72.4	72.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	155	334	720
CNEL:	77	166	359	773

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Tippecanoe Avenue
Road Segment: Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,471 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,547 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	67 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.13	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.70	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.43	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.2	69.3	67.5	61.4	70.1	70.7
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.6
Heavy Trucks:	66.4	65.0	56.0	57.2	65.6	65.7
Vehicle Noise:	72.9	71.2	68.0	63.4	71.9	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	67	144	311	670
CNEL:	72	155	334	719

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Tippecanoe Avenue
Road Segment: Mill Street to Orange Show Road /San Bernardino Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,591 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,259 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.20	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.63	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.36	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.6	68.7	66.9	60.8	69.5	70.1
Medium Trucks:	62.7	61.2	54.9	53.3	61.8	62.0
Heavy Trucks:	65.8	64.4	55.4	56.6	65.0	65.1
Vehicle Noise:	72.3	70.6	67.4	62.8	71.3	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	61	132	284	611
CNEL:	66	141	304	655

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Del Rosa Drive
Road Segment: SR-210 EB Ramps to Highland Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,780 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,378 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.83	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-17.00	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.73	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	67.3	65.5	59.5	68.1	68.7
Medium Trucks:	61.4	59.9	53.5	52.0	60.4	60.7
Heavy Trucks:	64.5	63.0	54.0	55.2	63.6	63.7
Vehicle Noise:	71.0	69.2	66.1	61.4	69.9	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	50	107	230	495
CNEL:	53	114	247	531

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Del Rosa Drive
Road Segment: Highland Avenue to Pacific Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,645	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,765	vehicles
Vehicle Speed:	35	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	1.63	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	75.75	-17.21	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	81.57	-18.93	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	65.5	63.7	57.7	66.3	66.9
Medium Trucks:	60.1	58.6	52.2	50.7	59.1	59.4
Heavy Trucks:	64.2	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	69.6	67.9	64.4	60.1	68.6	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	57	123	266
CNEL:	28	61	132	284

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Del Rosa Drive
Road Segment: Baseline Street to 9th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,963	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	996	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.95	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.78	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.51	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.5	61.8	55.7	64.3	64.9
Medium Trucks:	57.6	56.1	49.7	48.2	56.6	56.9
Heavy Trucks:	60.7	59.3	50.2	51.5	59.8	59.9
Vehicle Noise:	67.2	65.4	62.3	57.6	66.2	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	60	129	277
CNEL:	30	64	138	297

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Del Rosa Drive
Road Segment: Pacific Street to Baseline Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,318	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,232	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.03	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.86	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.59	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	64.4	62.7	56.6	65.2	65.9
Medium Trucks:	58.5	57.0	50.7	49.1	57.6	57.8
Heavy Trucks:	61.6	60.2	51.1	52.4	60.7	60.9
Vehicle Noise:	68.1	66.4	63.2	58.5	67.1	67.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	69	148	319
CNEL:	34	74	159	343

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Del Rosa Drive
Road Segment: 9th Street to 6th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,871	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	987	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.99	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.82	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.55	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.5	61.7	55.7	64.3	64.9
Medium Trucks:	57.6	56.1	49.7	48.1	56.6	56.8
Heavy Trucks:	60.6	59.2	50.2	51.4	59.8	59.9
Vehicle Noise:	67.1	65.4	62.3	57.6	66.1	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	59	128	275
CNEL:	30	64	137	296

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Del Rosa Drive
Road Segment: 6th Street to 3rd Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,576 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	958 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.12	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.95	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.68	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.2	63.4	61.6	55.5	64.2	64.8
Medium Trucks:	57.4	55.9	49.6	48.0	56.5	56.7
Heavy Trucks:	60.5	59.1	50.0	51.3	59.6	59.8
Vehicle Noise:	67.0	65.3	62.1	57.4	66.0	66.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	58	125	270
CNEL:	29	62	134	290

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Sterling Avenue
Road Segment: 9th Street to 6th Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,609 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,061 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.16	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-20.00	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.72	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.3	62.4	60.6	54.5	63.2	63.8
Medium Trucks:	56.7	55.1	48.8	47.2	55.7	55.9
Heavy Trucks:	60.2	58.8	49.7	51.0	59.3	59.5
Vehicle Noise:	66.2	64.5	61.2	56.7	65.2	65.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	51	111	239
CNEL:	26	55	119	256

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Sterling Avenue
Road Segment: Base Line to 9th Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,368 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,337 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.16	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-18.99	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.72	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.3	63.4	61.6	55.5	64.2	64.8
Medium Trucks:	57.7	56.1	49.8	48.2	56.7	56.9
Heavy Trucks:	61.2	59.8	50.7	52.0	60.4	60.5
Vehicle Noise:	67.2	65.5	62.2	57.7	66.2	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	60	129	279
CNEL:	30	64	138	298

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Sterling Avenue
Road Segment: 6th Street to 3rd Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,984 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	698 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.98	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-21.81	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-23.54	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.4	60.5	58.8	52.7	61.3	61.9
Medium Trucks:	54.8	53.3	47.0	45.4	53.9	54.1
Heavy Trucks:	58.4	57.0	47.9	49.2	57.5	57.7
Vehicle Noise:	64.4	62.7	59.4	54.8	63.4	63.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	18	39	84	181
CNEL:	19	42	90	194

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Victoria Avenue
Road Segment: Highland Avenue to Pacific Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,184	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,218	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.56	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-19.40	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.12	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.8	62.0	56.0	64.6	65.2
Medium Trucks:	58.1	56.6	50.2	48.7	57.1	57.4
Heavy Trucks:	61.6	60.2	51.2	52.4	60.8	60.9
Vehicle Noise:	67.6	65.9	62.6	58.1	66.6	67.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	56	122	262
CNEL:	28	60	130	280

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Victoria Avenue
Road Segment: Base Line to 9th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,210	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,121	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.44	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-20.27	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.00	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.9	63.1	57.0	65.7	66.3
Medium Trucks:	58.9	57.4	51.1	49.5	58.0	58.2
Heavy Trucks:	62.0	60.6	51.6	52.8	61.2	61.3
Vehicle Noise:	68.5	66.8	63.6	59.0	67.5	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	30	65	139	300
CNEL:	32	69	149	322

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Victoria Avenue
Road Segment: Pacific Street to Base Line

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,431	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,443	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.17	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-18.66	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.39	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.4	64.5	62.8	56.7	65.3	65.9
Medium Trucks:	58.8	57.3	51.0	49.4	57.9	58.1
Heavy Trucks:	62.4	60.9	51.9	53.2	61.5	61.6
Vehicle Noise:	68.4	66.6	63.4	58.8	67.4	67.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	63	136	293
CNEL:	31	68	146	314

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Victoria Avenue
Road Segment: 9th Street to 6th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,368	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	837	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.71	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-21.54	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-23.27	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.6	61.8	55.8	64.4	65.0
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0
Heavy Trucks:	60.8	59.3	50.3	51.5	59.9	60.0
Vehicle Noise:	67.3	65.5	62.4	57.7	66.2	66.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	53	114	247
CNEL:	26	57	123	265

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: Victoria Avenue
Road Segment: 6th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	8,368 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	837 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	24 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	44.0 feet		
Centerline Dist. to Observer:	44.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.71	0.94	-1.20	*-4.61*	0.000	0.000
Medium Trucks:	79.45	-21.54	0.97	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.27	0.96	-1.20	*-5.50*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.6	61.8	55.8	64.4	65.0
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0
Heavy Trucks:	60.8	59.3	50.3	51.5	59.9	60.0
Vehicle Noise:	67.3	65.5	62.4	57.7	66.2	66.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	53	114	247
CNEL:	26	57	123	265

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 6th Street
Road Segment: Del Rosa Drive to Sterling Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	4,714 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	471 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	40 mph		
Near/Far Lane Distance:	20 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	30.0 feet		
Centerline Dist. to Observer:	30.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.69	3.51	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-23.52	3.58	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-25.25	3.57	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.1	62.2	60.5	54.4	63.0	63.6
Medium Trucks:	56.6	55.1	48.7	47.2	55.6	55.9
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4
Vehicle Noise:	66.1	64.4	61.1	56.5	65.1	65.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	30	65	141
CNEL:	15	33	70	151

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 6th Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	3,249 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	325 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	40 mph		
Near/Far Lane Distance:	20 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	30.0 feet		
Centerline Dist. to Observer:	30.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.30	3.51	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-25.14	3.58	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-26.86	3.57	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.5	60.6	58.9	52.8	61.4	62.0
Medium Trucks:	55.0	53.4	47.1	45.5	54.0	54.2
Heavy Trucks:	58.5	57.1	48.0	49.3	57.6	57.8
Vehicle Noise:	64.5	62.8	59.5	54.9	63.5	63.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	11	24	51	110
CNEL:	12	25	55	118

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 6th Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	3,519 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	352 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	40 mph		
Near/Far Lane Distance:	20 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	30.0 feet		
Centerline Dist. to Observer:	30.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.96	3.51	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-24.79	3.58	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-26.52	3.57	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	61.0	59.2	53.1	61.8	62.4
Medium Trucks:	55.3	53.8	47.4	45.9	54.4	54.6
Heavy Trucks:	58.8	57.4	48.4	49.6	58.0	58.1
Vehicle Noise:	64.8	63.1	59.8	55.3	63.8	64.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	12	25	54	116
CNEL:	12	27	58	124

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 6th Street
Road Segment: Victoria Avenue to Central Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,047 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	405 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.35	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-24.18	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-25.91	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.5	61.6	59.8	53.8	62.4	63.0
Medium Trucks:	55.9	54.4	48.0	46.5	55.0	55.2
Heavy Trucks:	59.5	58.0	49.0	50.2	58.6	58.7
Vehicle Noise:	65.4	63.7	60.4	55.9	64.4	64.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	13	27	59	127
CNEL:	14	29	63	136

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: E Street to Waterman Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,083 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,008 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.10	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-17.74	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.46	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	66.6	64.8	58.7	67.4	68.0
Medium Trucks:	60.6	59.1	52.8	51.2	59.7	59.9
Heavy Trucks:	63.7	62.3	53.3	54.5	62.9	63.0
Vehicle Noise:	70.2	68.5	65.3	60.7	69.2	69.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	44	95	205	442
CNEL:	47	102	220	475

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: I-215 NB Ramps to E Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	30,975 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,098 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.98	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.86	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.58	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.3	68.4	66.7	60.6	69.2	69.9
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8
Heavy Trucks:	65.6	64.2	55.1	56.4	64.7	64.9
Vehicle Noise:	72.1	70.4	67.2	62.5	71.1	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	127	274	590
CNEL:	63	136	294	633

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Waterman Avenue to Tippecanoe Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,167 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	917 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	14 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.31	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-21.14	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-22.87	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.7	64.0	57.9	66.5	67.1
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1
Heavy Trucks:	62.9	61.5	52.4	53.7	62.1	62.2
Vehicle Noise:	69.4	67.7	64.5	59.8	68.4	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	55	119	257
CNEL:	28	59	128	276

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,725 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	873 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	14 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.52	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-21.36	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-23.08	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	65.5	63.7	57.7	66.3	66.9
Medium Trucks:	59.6	58.1	51.8	50.2	58.7	58.9
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0
Vehicle Noise:	69.2	67.4	64.3	59.6	68.2	68.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	54	115	249
CNEL:	27	57	124	267

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,911 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	391 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	14 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-6.01	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-24.84	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-26.57	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.9	62.0	60.3	54.2	62.8	63.4
Medium Trucks:	56.1	54.6	48.3	46.7	55.2	55.4
Heavy Trucks:	59.2	57.8	48.8	50.0	58.4	58.5
Vehicle Noise:	65.7	64.0	60.8	56.1	64.7	65.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	15	31	68	146
CNEL:	16	34	73	156

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Del Rosa Drive to Sterling Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,595 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	560 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.45	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-23.29	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.01	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	61.0	59.3	53.2	61.8	62.4
Medium Trucks:	55.1	53.6	47.2	45.7	54.1	54.4
Heavy Trucks:	58.2	56.7	47.7	49.0	57.3	57.4
Vehicle Noise:	64.7	62.9	59.8	55.1	63.7	64.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	19	41	88	189
CNEL:	20	44	94	202

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Victoria Avenue to Central Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,939 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	994 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.96	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.79	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.52	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.5	61.7	55.7	64.3	64.9
Medium Trucks:	57.6	56.1	49.7	48.2	56.6	56.9
Heavy Trucks:	60.7	59.2	50.2	51.5	59.8	59.9
Vehicle Noise:	67.2	65.4	62.3	57.6	66.1	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	60	128	277
CNEL:	30	64	138	297

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Central Avenue to Palm Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,939 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	994 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.96	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.79	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.52	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.5	61.7	55.7	64.3	64.9
Medium Trucks:	57.6	56.1	49.7	48.2	56.6	56.9
Heavy Trucks:	60.7	59.2	50.2	51.5	59.8	59.9
Vehicle Noise:	67.2	65.4	62.3	57.6	66.1	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	60	128	277
CNEL:	30	64	138	297

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 3rd Street
Road Segment: Waterman Avenue to Tippecanoe Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,460 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,046 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.74	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.57	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.30	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.7	62.0	55.9	64.5	65.1
Medium Trucks:	57.8	56.3	49.9	48.4	56.9	57.1
Heavy Trucks:	60.9	59.5	50.4	51.7	60.0	60.2
Vehicle Noise:	67.4	65.7	62.5	57.8	66.4	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	62	133	286
CNEL:	31	66	143	307

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 5th Street
Road Segment: Palm Avenue to SR-210 EB Ramps
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,098 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,610 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.23	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.60	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.33	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.7	65.9	59.9	68.5	69.1
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.1
Heavy Trucks:	64.9	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.4	69.6	66.5	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	113	245	527
CNEL:	57	122	262	565

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 3rd Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,620 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,562 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.01	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.83	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.56	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	65.5	63.7	57.7	66.3	66.9
Medium Trucks:	59.6	58.0	51.7	50.1	58.6	58.8
Heavy Trucks:	62.6	61.2	52.2	53.4	61.8	61.9
Vehicle Noise:	69.1	67.4	64.3	59.6	68.1	68.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	81	174	374
CNEL:	40	86	186	401

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 3rd Street
Road Segment: Del Rosa Drive to Sterling Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,143 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,814 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.66	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.18	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.91	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	66.1	64.4	58.3	66.9	67.5
Medium Trucks:	60.2	58.7	52.3	50.8	59.3	59.5
Heavy Trucks:	63.3	61.9	52.8	54.1	62.4	62.6
Vehicle Noise:	69.8	68.0	64.9	60.2	68.8	69.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	41	89	192	413
CNEL:	44	96	206	443

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 3rd Street
Road Segment: Victoria Avenue to Palm Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,714 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,071 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.63	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.47	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.19	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.8	62.1	56.0	64.6	65.2
Medium Trucks:	57.9	56.4	50.0	48.5	57.0	57.2
Heavy Trucks:	61.0	59.6	50.5	51.8	60.1	60.3
Vehicle Noise:	67.5	65.8	62.6	57.9	66.5	66.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	63	135	291
CNEL:	31	67	145	312

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing
Road Name: 3rd Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,457 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,346 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.64	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.48	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.20	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.7	64.8	63.1	57.0	65.6	66.2
Medium Trucks:	58.9	57.4	51.0	49.5	58.0	58.2
Heavy Trucks:	62.0	60.6	51.5	52.8	61.1	61.3
Vehicle Noise:	68.5	66.7	63.6	58.9	67.5	67.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	34	73	157	339
CNEL:	36	78	169	363

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Waterman Avenue
Road Segment: Baseline Street to 5th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,062 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,606 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.74	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-16.09	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.82	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	66.3	64.5	58.4	67.1	67.7
Medium Trucks:	60.6	59.0	52.7	51.1	59.6	59.8
Heavy Trucks:	64.1	62.7	53.6	54.9	63.3	63.4
Vehicle Noise:	70.1	68.4	65.1	60.6	69.1	69.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	94	202	435
CNEL:	47	100	216	466

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Waterman Avenue
Road Segment: 5th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	28,232	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,823	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	3.09	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-15.75	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.47	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	68.3	66.5	60.5	69.1	69.7
Medium Trucks:	62.6	61.1	54.7	53.2	61.6	61.9
Heavy Trucks:	66.1	64.7	55.7	56.9	65.3	65.4
Vehicle Noise:	72.1	70.4	67.1	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	275	593
CNEL:	64	137	295	635

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Tippecanoe Avenue
Road Segment: 6th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,390	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,939	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.94	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-17.89	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.62	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.1	67.2	65.5	59.4	68.0	68.6
Medium Trucks:	61.3	59.8	53.5	51.9	60.4	60.6
Heavy Trucks:	64.4	63.0	53.9	55.2	63.5	63.7
Vehicle Noise:	70.9	69.2	66.0	61.3	69.9	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	93	200	432
CNEL:	46	100	215	463

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Tippecanoe Avenue
Road Segment: Baseline Street to 6th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,152	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,315	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.74	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-19.58	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.30	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.5	65.6	63.8	57.7	66.4	67.0
Medium Trucks:	59.6	58.1	51.8	50.2	58.7	58.9
Heavy Trucks:	62.7	61.3	52.3	53.5	61.9	62.0
Vehicle Noise:	69.2	67.5	64.3	59.7	68.2	68.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	72	155	333
CNEL:	36	77	166	358

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Tippecanoe Avenue
Road Segment: 3rd Street to Mill Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	38,124	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,812	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.88	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-14.95	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.68	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.9	71.0	69.3	63.2	71.8	72.4
Medium Trucks:	65.1	63.6	57.2	55.7	64.2	64.4
Heavy Trucks:	68.2	66.8	57.7	59.0	67.3	67.5
Vehicle Noise:	74.7	72.9	69.8	65.1	73.7	74.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	88	189	407	877
CNEL:	94	203	437	941

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Tippecanoe Avenue
Road Segment: Mill Street to Orange Show Road /San Bernardino Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	42,353	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	4,235	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.34	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-14.50	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.22	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.7	69.8	68.0	62.0	70.6	71.2
Medium Trucks:	63.9	62.4	56.0	54.5	62.9	63.2
Heavy Trucks:	67.0	65.5	56.5	57.8	66.1	66.2
Vehicle Noise:	73.5	71.7	68.6	63.9	72.4	72.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	73	157	338	727
CNEL:	78	168	362	780

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Del Rosa Drive
Road Segment: SR-210 EB Ramps to Highland Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,080	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,608	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.23	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.60	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.33	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.7	65.9	59.9	68.5	69.1
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.1
Heavy Trucks:	64.9	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.4	69.6	66.5	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	113	244	527
CNEL:	56	122	262	565

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Tippecanoe Avenue
Road Segment: Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,233	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,523	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.54	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.30	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.02	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.6	70.7	68.9	62.9	71.5	72.1
Medium Trucks:	64.8	63.3	56.9	55.4	63.8	64.1
Heavy Trucks:	67.8	66.4	57.4	58.6	67.0	67.1
Vehicle Noise:	74.3	72.6	69.5	64.8	73.3	73.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	83	179	386	832
CNEL:	89	192	414	893

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Del Rosa Drive
Road Segment: Highland Avenue to Pacific Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,945	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,995	vehicles
Vehicle Speed:	35	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	2.16	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	75.75	-16.68	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	81.57	-18.40	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.9	66.0	64.3	58.2	66.8	67.4
Medium Trucks:	60.6	59.1	52.7	51.2	59.7	59.9
Heavy Trucks:	64.7	63.3	54.2	55.5	63.8	64.0
Vehicle Noise:	70.1	68.4	65.0	60.6	69.1	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	62	134	288
CNEL:	31	66	143	308

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Del Rosa Drive
Road Segment: Pacific Street to Baseline Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,618	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,462	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.28	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.12	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.84	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.4	57.4	66.0	66.6
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.5
Heavy Trucks:	62.3	60.9	51.9	53.1	61.5	61.6
Vehicle Noise:	68.8	67.1	64.0	59.3	67.8	68.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	77	166	358
CNEL:	38	83	178	384

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Del Rosa Drive
Road Segment: 9th Street to 6th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,379	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,638	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.21	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.62	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.35	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.7	63.9	57.9	66.5	67.1
Medium Trucks:	59.8	58.3	51.9	50.3	58.8	59.0
Heavy Trucks:	62.8	61.4	52.4	53.6	62.0	62.1
Vehicle Noise:	69.3	67.6	64.5	59.8	68.3	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	83	179	386
CNEL:	41	89	192	414

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Del Rosa Drive
Road Segment: Baseline Street to 9th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,471	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,647	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.24	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.60	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.33	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.7	63.9	57.9	66.5	67.1
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	62.9	61.4	52.4	53.6	62.0	62.1
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	84	180	388
CNEL:	42	90	193	416

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Del Rosa Drive
Road Segment: 6th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,560	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,156	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.30	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.14	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.86	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.1	64.2	62.4	56.3	65.0	65.6
Medium Trucks:	58.2	56.7	50.4	48.8	57.3	57.5
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	67.8	66.1	62.9	58.3	66.8	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	66	142	306
CNEL:	33	71	152	328

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Sterling Avenue
Road Segment: Base Line to 9th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,806	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,681	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.83	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-18.00	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.73	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	64.4	62.6	56.5	65.2	65.8
Medium Trucks:	58.6	57.1	50.8	49.2	57.7	57.9
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3	61.5
Vehicle Noise:	68.2	66.5	63.2	58.7	67.2	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	70	151	325
CNEL:	35	75	161	347

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Sterling Avenue
Road Segment: 6th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,366	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,437	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.15	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-18.68	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.41	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.7	61.9	55.9	64.5	65.1
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.2
Heavy Trucks:	61.5	60.1	51.1	52.3	60.7	60.8
Vehicle Noise:	67.5	65.8	62.5	58.0	66.5	66.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	63	136	292
CNEL:	31	67	145	313

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Sterling Avenue
Road Segment: 9th Street to 6th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,775	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,278	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.36	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-19.19	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.92	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	63.2	61.4	55.3	64.0	64.6
Medium Trucks:	57.5	56.0	49.6	48.0	56.5	56.7
Heavy Trucks:	61.0	59.6	50.5	51.8	60.2	60.3
Vehicle Noise:	67.0	65.3	62.0	57.5	66.0	66.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	58	125	270
CNEL:	29	62	134	289

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Victoria Avenue
Road Segment: Highland Avenue to Pacific Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,944	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,694	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.87	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-17.96	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.69	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.5	57.4	66.0	66.6
Medium Trucks:	59.5	58.0	51.7	50.1	58.6	58.8
Heavy Trucks:	63.1	61.6	52.6	53.9	62.2	62.3
Vehicle Noise:	69.1	67.3	64.1	59.5	68.1	68.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	70	151	326
CNEL:	35	75	162	349

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Victoria Avenue
Road Segment: Pacific Street to Base Line

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,687	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,969	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.52	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-17.31	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.04	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.8	65.9	64.1	58.0	66.7	67.3
Medium Trucks:	60.2	58.7	52.3	50.8	59.2	59.5
Heavy Trucks:	63.7	62.3	53.3	54.5	62.9	63.0
Vehicle Noise:	69.7	68.0	64.7	60.2	68.7	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	78	167	361
CNEL:	39	83	179	386

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Victoria Avenue
Road Segment: 9th Street to 6th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,624	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,362	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.59	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-19.42	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.15	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.7	63.9	57.9	66.5	67.1
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	62.9	61.4	52.4	53.7	62.0	62.1
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	34	74	158	341
CNEL:	37	79	170	366

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Victoria Avenue
Road Segment: Base Line to 9th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,466	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,647	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.23	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-18.60	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.33	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.8	58.7	67.3	67.9
Medium Trucks:	60.6	59.1	52.7	51.2	59.7	59.9
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0
Vehicle Noise:	70.2	68.5	65.3	60.6	69.2	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	83	180	387
CNEL:	42	90	193	416

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: Victoria Avenue
Road Segment: 6th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,436	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	944	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.18	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-21.02	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.74	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.0	64.1	62.3	56.3	64.9	65.5
Medium Trucks:	58.2	56.7	50.3	48.8	57.2	57.5
Heavy Trucks:	61.3	59.9	50.8	52.1	60.4	60.5
Vehicle Noise:	67.8	66.0	62.9	58.2	66.8	67.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	58	124	267
CNEL:	29	62	133	287

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 6th Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,491 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	449 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.90	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-23.73	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-25.46	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.9	62.0	60.3	54.2	62.8	63.4
Medium Trucks:	56.4	54.9	48.5	46.9	55.4	55.6
Heavy Trucks:	59.9	58.5	49.5	50.7	59.1	59.2
Vehicle Noise:	65.9	64.2	60.9	56.3	64.9	65.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	29	63	136
CNEL:	15	31	68	146

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 6th Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,051 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,005 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.40	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-20.23	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.96	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	65.5	63.8	57.7	66.3	66.9
Medium Trucks:	59.9	58.4	52.0	50.4	58.9	59.1
Heavy Trucks:	63.4	62.0	52.9	54.2	62.6	62.7
Vehicle Noise:	69.4	67.7	64.4	59.8	68.4	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	50	108	234
CNEL:	25	54	116	250

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 6th Street
Road Segment: Del Rosa Drive to Sterling Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,674 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	767 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.57	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-21.40	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-23.13	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.4	62.6	56.5	65.2	65.8
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	58.0
Heavy Trucks:	62.2	60.8	51.8	53.0	61.4	61.5
Vehicle Noise:	68.2	66.5	63.2	58.7	67.2	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	20	42	91	195
CNEL:	21	45	97	209

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 6th Street
Road Segment: Victoria Avenue to Central Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,918 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,092 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.04	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-19.87	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.60	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.8	65.9	64.1	58.1	66.7	67.3
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5
Heavy Trucks:	63.8	62.3	53.3	54.6	62.9	63.0
Vehicle Noise:	69.7	68.0	64.7	60.2	68.7	69.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	53	115	247
CNEL:	26	57	123	264

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: I-215 NB Ramps to E Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	43,371	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	4,337	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.44	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-14.39	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.12	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	69.9	68.1	62.1	70.7	71.3
Medium Trucks:	64.0	62.5	56.1	54.6	63.0	63.3
Heavy Trucks:	67.1	65.6	56.6	57.9	66.2	66.3
Vehicle Noise:	73.6	71.8	68.7	64.0	72.5	73.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	74	159	343	739
CNEL:	79	171	368	793

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Waterman Avenue to Tippecanoe Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	22,329	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,233	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.56	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-17.28	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-19.00	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.5	69.6	67.8	61.8	70.4	71.0
Medium Trucks:	63.7	62.2	55.8	54.3	62.7	63.0
Heavy Trucks:	66.8	65.4	56.3	57.6	65.9	66.0
Vehicle Noise:	73.3	71.5	68.4	63.7	72.2	72.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	100	216	465
CNEL:	50	108	232	499

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: E Street to Waterman Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,479	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,248	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.18	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.65	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.38	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.6	68.7	66.9	60.8	69.5	70.1
Medium Trucks:	62.7	61.2	54.9	53.3	61.8	62.0
Heavy Trucks:	65.8	64.4	55.3	56.6	65.0	65.1
Vehicle Noise:	72.3	70.6	67.4	62.7	71.3	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	61	131	283	609
CNEL:	65	141	303	654

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Tippecanoe Avenue to Del Rosa Drive

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,858	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,386	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.84	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-16.99	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-18.72	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	69.9	68.1	62.1	70.7	71.3
Medium Trucks:	64.0	62.5	56.1	54.6	63.0	63.3
Heavy Trucks:	67.1	65.6	56.6	57.9	66.2	66.3
Vehicle Noise:	73.6	71.8	68.7	64.0	72.5	73.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	226	486
CNEL:	52	112	242	522

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 5th Street
Road Segment: Del Rosa Drive to Sterling Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,122	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,612	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.24	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.60	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.32	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.7	65.9	59.9	68.5	69.1
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.1
Heavy Trucks:	64.9	63.4	54.4	55.7	64.0	64.1
Vehicle Noise:	71.4	69.6	66.5	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	114	245	527
CNEL:	57	122	262	565

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 5th Street
Road Segment: Victoria Avenue to Central Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,258	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,226	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.15	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.68	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.41	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.9	60.8	69.4	70.0
Medium Trucks:	62.7	61.2	54.8	53.3	61.7	62.0
Heavy Trucks:	65.8	64.4	55.3	56.6	64.9	65.1
Vehicle Noise:	72.3	70.5	67.4	62.7	71.3	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	61	131	282	607
CNEL:	65	140	302	651

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 5th Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,904	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,590	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.20	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-16.63	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-18.36	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.1	70.2	68.5	62.4	71.0	71.6
Medium Trucks:	64.3	62.8	56.5	54.9	63.4	63.6
Heavy Trucks:	67.4	66.0	57.0	58.2	66.6	66.7
Vehicle Noise:	73.9	72.2	69.0	64.3	72.9	73.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	111	239	514
CNEL:	55	119	256	551

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 5th Street
Road Segment: Central Avenue to Palm Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,031	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,503	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.51	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.32	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.05	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	69.0	67.2	61.2	69.8	70.4
Medium Trucks:	63.1	61.6	55.2	53.6	62.1	62.3
Heavy Trucks:	66.1	64.7	55.7	56.9	65.3	65.4
Vehicle Noise:	72.6	70.9	67.8	63.1	71.6	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	64	138	298	641
CNEL:	69	148	319	688

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 5th Street
Road Segment: Palm Avenue to SR-210 EB Ramps
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	52,097	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	5,210	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.24	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-13.60	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.32	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.6	70.7	68.9	62.9	71.5	72.1
Medium Trucks:	64.8	63.3	56.9	55.4	63.8	64.1
Heavy Trucks:	67.9	66.4	57.4	58.7	67.0	67.1
Vehicle Noise:	74.4	72.6	69.5	64.8	73.3	73.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	84	180	388	835
CNEL:	90	193	416	896

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 3rd Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,119	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,712	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.40	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.43	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.16	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.1	60.1	68.7	69.3
Medium Trucks:	61.9	60.4	54.1	52.5	61.0	61.2
Heavy Trucks:	65.0	63.6	54.6	55.8	64.2	64.3
Vehicle Noise:	71.5	69.8	66.6	62.0	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	116	251	540
CNEL:	58	125	269	580

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 3rd Street
Road Segment: Waterman Avenue to Tippecanoe Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,686	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,169	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.25	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.09	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.82	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.1	64.2	62.4	56.4	65.0	65.6
Medium Trucks:	58.3	56.8	50.4	48.9	57.3	57.6
Heavy Trucks:	61.4	59.9	50.9	52.2	60.5	60.6
Vehicle Noise:	67.9	66.1	63.0	58.3	66.9	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	66	143	308
CNEL:	33	71	154	331

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 3rd Street
Road Segment: Del Rosa Drive to Sterling Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	28,583	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,858	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.63	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.20	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.93	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.0	68.1	66.3	60.3	68.9	69.5
Medium Trucks:	62.2	60.7	54.3	52.8	61.2	61.5
Heavy Trucks:	65.3	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	71.8	70.0	66.9	62.2	70.7	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	260	560
CNEL:	60	129	279	600

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 3rd Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,662	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,966	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.00	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-17.83	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.56	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.7	58.7	67.3	67.9
Medium Trucks:	60.6	59.0	52.7	51.1	59.6	59.8
Heavy Trucks:	63.6	62.2	53.2	54.4	62.8	62.9
Vehicle Noise:	70.1	68.4	65.3	60.6	69.1	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	44	94	202	436
CNEL:	47	101	217	468

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040
Road Name: Waterman Avenue
Road Segment: Baseline Street to 5th Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	28,982	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,898	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	3.20	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-15.63	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.36	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.6	66.7	65.0	58.9	67.5	68.1
Medium Trucks:	61.0	59.5	53.1	51.6	60.1	60.3
Heavy Trucks:	64.6	63.1	54.1	55.4	63.7	63.8
Vehicle Noise:	70.6	68.8	65.6	61.0	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	101	217	467
CNEL:	50	108	232	500

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+Project
Road Name: 3rd Street
Road Segment: Victoria Avenue to Palm Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,123	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,712	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.40	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.43	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.16	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.8	65.9	64.1	58.1	66.7	67.3
Medium Trucks:	60.0	58.4	52.1	50.5	59.0	59.2
Heavy Trucks:	63.0	61.6	52.6	53.8	62.2	62.3
Vehicle Noise:	69.5	67.8	64.6	60.0	68.5	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	40	86	185	398
CNEL:	43	92	198	427

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040
Road Name: Waterman Avenue
Road Segment: 5th Street to 3rd Street

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,551	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,155	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	3.57	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-15.26	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.99	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.7	68.8	67.0	60.9	69.6	70.2
Medium Trucks:	63.1	61.6	55.2	53.7	62.1	62.4
Heavy Trucks:	66.6	65.2	56.2	57.4	65.8	65.9
Vehicle Noise:	72.6	70.9	67.6	63.1	71.6	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	64	138	297	639
CNEL:	68	147	317	684

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Tippecanoe Avenue | Job Number: 13635
Road Segment: Baseline Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,291	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,929	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.92	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-17.91	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.64	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.1	67.2	65.5	59.4	68.0	68.6
Medium Trucks:	61.3	59.8	53.4	51.9	60.4	60.6
Heavy Trucks:	64.4	63.0	53.9	55.2	63.5	63.7
Vehicle Noise:	70.9	69.1	66.0	61.3	69.9	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	93	200	430
CNEL:	46	99	214	462

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Tippecanoe Avenue | Job Number: 13635
Road Segment: 3rd Street to Mill Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	43,928	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	4,393	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.50	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-14.34	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.07	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.5	71.6	69.9	63.8	72.4	73.0
Medium Trucks:	65.7	64.2	57.9	56.3	64.8	65.0
Heavy Trucks:	68.8	67.4	58.3	59.6	68.0	68.1
Vehicle Noise:	75.3	73.6	70.4	65.7	74.3	74.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	96	208	447	964
CNEL:	103	223	480	1,034

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Tippecanoe Avenue | Job Number: 13635
Road Segment: 6th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,328	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,633	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.20	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-18.64	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.36	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.7	58.7	67.3	67.9
Medium Trucks:	60.6	59.1	52.7	51.2	59.6	59.9
Heavy Trucks:	63.7	62.2	53.2	54.4	62.8	62.9
Vehicle Noise:	70.2	68.4	65.3	60.6	69.1	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	83	179	385
CNEL:	41	89	192	413

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Tippecanoe Avenue | Job Number: 13635
Road Segment: Mill Street to Orange Show Road /San Bernardino Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	47,921	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	4,792	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.87	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-13.96	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.69	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.2	70.3	68.6	62.5	71.1	71.8
Medium Trucks:	64.4	62.9	56.6	55.0	63.5	63.7
Heavy Trucks:	67.5	66.1	57.0	58.3	66.6	66.8
Vehicle Noise:	74.0	72.3	69.1	64.4	73.0	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	79	170	367	790
CNEL:	85	183	393	847

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Tippecanoe Avenue | Job Number: 13635
Road Segment: Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,159	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,916	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.72	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.12	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.84	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	69.9	68.1	62.0	70.7	71.3
Medium Trucks:	64.0	62.4	56.1	54.5	63.0	63.2
Heavy Trucks:	67.0	65.6	56.6	57.8	66.2	66.3
Vehicle Noise:	73.5	71.8	68.6	64.0	72.5	73.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	73	158	341	734
CNEL:	79	170	365	787

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: Highland Avenue to Pacific Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,585	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,959	vehicles
Vehicle Speed:	35	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	2.08	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	75.75	-16.75	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	81.57	-18.48	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.9	66.0	64.2	58.1	66.8	67.4
Medium Trucks:	60.5	59.0	52.7	51.1	59.6	59.8
Heavy Trucks:	64.6	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	70.1	68.3	64.9	60.5	69.0	69.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	61	132	285
CNEL:	30	66	141	304

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: SR-210 EB Ramps to Highland Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,238	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,624	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.26	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.58	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.30	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.7	66.0	59.9	68.5	69.1
Medium Trucks:	61.8	60.3	53.9	52.4	60.9	61.1
Heavy Trucks:	64.9	63.5	54.4	55.7	64.0	64.2
Vehicle Noise:	71.4	69.6	66.5	61.8	70.4	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	114	245	529
CNEL:	57	122	263	567

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: Pacific Street to Baseline Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,318	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,532	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.08	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.91	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.64	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	65.4	63.6	57.6	66.2	66.8
Medium Trucks:	59.5	58.0	51.6	50.1	58.5	58.7
Heavy Trucks:	62.5	61.1	52.1	53.3	61.7	61.8
Vehicle Noise:	69.1	67.3	64.2	59.5	68.0	68.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	80	171	369
CNEL:	40	85	184	396

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: Baseline Street to 9th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,139	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,214	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.09	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.92	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.65	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	64.4	62.6	56.6	65.2	65.8
Medium Trucks:	58.5	57.0	50.6	49.0	57.5	57.7
Heavy Trucks:	61.5	60.1	51.1	52.3	60.7	60.8
Vehicle Noise:	68.0	66.3	63.2	58.5	67.0	67.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	68	147	316
CNEL:	34	73	157	339

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: 6th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,774	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,277	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.87	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.70	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.43	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	64.6	62.8	56.8	65.4	66.0
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	58.0
Heavy Trucks:	61.8	60.3	51.3	52.5	60.9	61.0
Vehicle Noise:	68.3	66.5	63.4	58.7	67.2	67.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	70	152	327
CNEL:	35	76	163	351

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: 9th Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,294	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,229	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.03	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.87	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.60	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	64.4	62.7	56.6	65.2	65.8
Medium Trucks:	58.5	57.0	50.6	49.1	57.6	57.8
Heavy Trucks:	61.6	60.2	51.1	52.4	60.7	60.9
Vehicle Noise:	68.1	66.4	63.2	58.5	67.1	67.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	69	148	319
CNEL:	34	74	159	342

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Sterling Avenue | Job Number: 13635
Road Segment: Base Line to 9th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,433	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,343	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.14	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-18.97	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.70	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.3	63.4	61.6	55.6	64.2	64.8
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0
Heavy Trucks:	61.2	59.8	50.8	52.0	60.4	60.5
Vehicle Noise:	67.2	65.5	62.2	57.7	66.2	66.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	60	130	280
CNEL:	30	64	139	299

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Sterling Avenue | Job Number: 13635
Road Segment: 9th Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,385	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,439	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.16	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-18.67	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.40	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.7	61.9	55.9	64.5	65.1
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.3
Heavy Trucks:	61.5	60.1	51.1	52.3	60.7	60.8
Vehicle Noise:	67.5	65.8	62.5	58.0	66.5	67.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	63	136	293
CNEL:	31	67	145	313

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Victoria Avenue | Job Number: 13635
Road Segment: Highland Avenue to Pacific Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,114	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,611	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.75	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-16.09	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.81	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	67.1	65.3	59.3	67.9	68.5
Medium Trucks:	61.4	59.9	53.5	52.0	60.4	60.7
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2
Vehicle Noise:	70.9	69.2	65.9	61.4	69.9	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	44	94	202	435
CNEL:	47	100	216	466

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Sterling Avenue | Job Number: 13635
Road Segment: 6th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,619	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,162	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.77	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-19.60	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.33	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.7	62.8	61.0	54.9	63.6	64.2
Medium Trucks:	57.0	55.5	49.2	47.6	56.1	56.3
Heavy Trucks:	60.6	59.2	50.1	51.4	59.7	59.9
Vehicle Noise:	66.6	64.9	61.6	57.0	65.6	66.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	55	118	254
CNEL:	27	59	126	272

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: Victoria Avenue | Job Number: 13635
Road Segment: Pacific Street to Base Line

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,643	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,764	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.05	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-17.79	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.52	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	65.4	63.6	57.6	66.2	66.8
Medium Trucks:	59.7	58.2	51.8	50.3	58.7	59.0
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4	62.5
Vehicle Noise:	69.2	67.5	64.2	59.7	68.2	68.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	34	72	156	335
CNEL:	36	77	167	359

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: Victoria Avenue | *Job Number:* 13635
Road Segment: Base Line to 9th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,063	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,306	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.77	0.94	-1.20	*-4.61*	0.000	0.000
Medium Trucks:	79.45	-19.60	0.97	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.33	0.96	-1.20	*-5.50*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.4	65.5	63.8	57.7	66.3	66.9
Medium Trucks:	59.6	58.1	51.7	50.2	58.7	58.9
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0
Vehicle Noise:	69.2	67.4	64.3	59.6	68.2	68.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	72	154	332
CNEL:	36	77	165	356

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: Victoria Avenue | *Job Number:* 13635
Road Segment: 6th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,525	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,253	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.95	0.94	-1.20	*-4.61*	0.000	0.000
Medium Trucks:	79.45	-19.79	0.97	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.51	0.96	-1.20	*-5.50*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.2	65.3	63.6	57.5	66.1	66.8
Medium Trucks:	59.4	57.9	51.6	50.0	58.5	58.7
Heavy Trucks:	62.5	61.1	52.0	53.3	61.6	61.8
Vehicle Noise:	69.0	67.3	64.1	59.4	68.0	68.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	32	70	150	323
CNEL:	35	75	161	346

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: Victoria Avenue | *Job Number:* 13635
Road Segment: 9th Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,302	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,030	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.80	0.94	-1.20	*-4.61*	0.000	0.000
Medium Trucks:	79.45	-20.64	0.97	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.36	0.96	-1.20	*-5.50*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.4	64.5	62.7	56.7	65.3	65.9
Medium Trucks:	58.6	57.1	50.7	49.2	57.6	57.9
Heavy Trucks:	61.7	60.2	51.2	52.4	60.8	60.9
Vehicle Noise:	68.2	66.4	63.3	58.6	67.1	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	28	61	132	283
CNEL:	30	65	141	304

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: 6th Street | *Job Number:* 13635
Road Segment: Tippecanoe Avenue to Del Rosa Drive

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,359	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	536	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	20	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	30.0	feet
Centerline Dist. to Observer:	30.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-4.13	3.51	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-22.96	3.58	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-24.69	3.57	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.7	62.8	61.0	55.0	63.6	64.2
Medium Trucks:	57.1	55.6	49.3	47.7	56.2	56.4
Heavy Trucks:	60.7	59.3	50.2	51.5	59.8	59.9
Vehicle Noise:	66.7	64.9	61.6	57.1	65.6	66.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	15	33	71	154
CNEL:	16	35	76	164

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 6th Street | Job Number: 13635
Road Segment: Del Rosa Drive to Sterling Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,501 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	750 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.67	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-21.50	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-23.23	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.3	62.5	56.4	65.1	65.7
Medium Trucks:	58.6	57.1	50.7	49.2	57.6	57.9
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4
Vehicle Noise:	68.1	66.4	63.1	58.6	67.1	67.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	19	41	89	192
CNEL:	21	44	95	206

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 6th Street | Job Number: 13635
Road Segment: Victoria Avenue to Central Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,844 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	584 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.75	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-22.59	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-24.31	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	63.2	61.4	55.3	64.0	64.6
Medium Trucks:	57.5	56.0	49.6	48.1	56.6	56.8
Heavy Trucks:	61.1	59.6	50.6	51.8	60.2	60.3
Vehicle Noise:	67.0	65.3	62.0	57.5	66.0	66.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	16	35	76	163
CNEL:	17	38	81	174

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 6th Street | Job Number: 13635
Road Segment: Sterling Avenue to Victoria Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,278 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	828 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.24	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-21.07	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-22.80	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	64.7	62.9	56.9	65.5	66.1
Medium Trucks:	59.0	57.5	51.1	49.6	58.1	58.3
Heavy Trucks:	62.6	61.1	52.1	53.4	61.7	61.8
Vehicle Noise:	68.5	66.8	63.5	59.0	67.5	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	21	44	95	205
CNEL:	22	47	102	220

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: I-215 NB Ramps to E Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	37,481 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,748 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.81	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.03	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.75	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.2	69.3	67.5	61.5	70.1	70.7
Medium Trucks:	63.4	61.8	55.5	53.9	62.4	62.6
Heavy Trucks:	66.4	65.0	56.0	57.2	65.6	65.7
Vehicle Noise:	72.9	71.2	68.1	63.4	71.9	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	67	144	311	671
CNEL:	72	155	334	719

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: 5th Street | *Job Number:* 13635
Road Segment: E Street to Waterman Avenue

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	22,657 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	2,266 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.62	0.11	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	79.45	-17.21	0.13	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-18.94	0.13	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	67.1	65.3	59.3	67.9	68.5
Medium Trucks:	61.2	59.7	53.3	51.8	60.2	60.4
Heavy Trucks:	64.2	62.8	53.8	55.0	63.4	63.5
Vehicle Noise:	70.8	69.0	65.9	61.2	69.7	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	48	103	223	479
CNEL:	51	111	239	514

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: 5th Street | *Job Number:* 13635
Road Segment: Tippecanoe Avenue to Del Rosa Drive

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	14,297 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	1,430 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	14 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	33.0 feet		
Centerline Dist. to Observer:	33.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.38	2.68	-1.20	*-4.52*	0.000	0.000
Medium Trucks:	79.45	-19.21	2.73	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	84.25	-20.94	2.73	-1.20	*-5.69*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.7	65.9	59.8	68.5	69.1
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.0
Heavy Trucks:	64.8	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.3	69.6	66.4	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	35	74	160	346
CNEL:	37	80	172	371

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: 5th Street | *Job Number:* 13635
Road Segment: Waterman Avenue to Tippecanoe Avenue

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	13,621 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	1,362 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	14 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	33.0 feet		
Centerline Dist. to Observer:	33.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.59	2.68	-1.20	*-4.52*	0.000	0.000
Medium Trucks:	79.45	-19.42	2.73	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	84.25	-21.15	2.73	-1.20	*-5.69*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.3	67.4	65.7	59.6	68.2	68.9
Medium Trucks:	61.6	60.0	53.7	52.1	60.6	60.8
Heavy Trucks:	64.6	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	71.1	69.4	66.2	61.6	70.1	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	72	155	335
CNEL:	36	77	167	359

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | *Project Name:* Airport Gateway Specific P
Road Name: 5th Street | *Job Number:* 13635
Road Segment: Del Rosa Drive to Sterling Avenue

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	10,664 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	1,066 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data			
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.65	0.11	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	79.45	-20.49	0.13	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.21	0.13	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.8	62.1	56.0	64.6	65.2
Medium Trucks:	57.9	56.4	50.0	48.5	56.9	57.2
Heavy Trucks:	61.0	59.5	50.5	51.8	60.1	60.2
Vehicle Noise:	67.5	65.7	62.6	57.9	66.5	66.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	62	135	290
CNEL:	31	67	144	311

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Sterling Avenue to Victoria Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,476 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	848 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	14 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.65	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-21.48	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-23.21	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	65.4	63.6	57.6	66.2	66.8
Medium Trucks:	59.5	58.0	51.6	50.1	58.5	58.8
Heavy Trucks:	62.6	61.1	52.1	53.4	61.7	61.8
Vehicle Noise:	69.1	67.3	64.2	59.5	68.0	68.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	53	113	244
CNEL:	26	56	121	262

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Central Avenue to Palm Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,912 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,191 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.17	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-20.01	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.73	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.3	62.5	56.5	65.1	65.7
Medium Trucks:	58.4	56.9	50.5	49.0	57.4	57.7
Heavy Trucks:	61.5	60.0	51.0	52.2	60.6	60.7
Vehicle Noise:	68.0	66.2	63.1	58.4	66.9	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	67	145	312
CNEL:	34	72	155	335

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Victoria Avenue to Central Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,954 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,195 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.16	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.99	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.72	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.3	62.5	56.5	65.1	65.7
Medium Trucks:	58.4	56.9	50.5	49.0	57.4	57.7
Heavy Trucks:	61.5	60.0	51.0	52.3	60.6	60.7
Vehicle Noise:	68.0	66.2	63.1	58.4	66.9	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	67	145	313
CNEL:	34	72	156	336

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Palm Avenue to SR-210 EB Ramps

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	33,870 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,387 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.37	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.47	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.19	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.7	68.8	67.1	61.0	69.6	70.2
Medium Trucks:	62.9	61.4	55.0	53.5	62.0	62.2
Heavy Trucks:	66.0	64.6	55.5	56.8	65.1	65.3
Vehicle Noise:	72.5	70.8	67.6	62.9	71.5	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	135	291	627
CNEL:	67	145	312	672

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 3rd Street | Job Number: 13635
Road Segment: Waterman Avenue to Tippecanoe Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,621 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,362 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.59	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.42	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.15	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.9	63.1	57.1	65.7	66.3
Medium Trucks:	59.0	57.5	51.1	49.5	58.0	58.2
Heavy Trucks:	62.0	60.6	51.6	52.8	61.2	61.3
Vehicle Noise:	68.5	66.8	63.7	59.0	67.5	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	34	74	158	341
CNEL:	37	79	170	366

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 3rd Street | Job Number: 13635
Road Segment: Del Rosa Drive to Sterling Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	34,523 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,452 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.45	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.38	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.11	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.8	68.9	67.2	61.1	69.7	70.3
Medium Trucks:	63.0	61.5	55.1	53.6	62.0	62.3
Heavy Trucks:	66.1	64.6	55.6	56.9	65.2	65.3
Vehicle Noise:	72.6	70.8	67.7	63.0	71.6	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	137	295	635
CNEL:	68	147	316	681

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 3rd Street | Job Number: 13635
Road Segment: Tippecanoe Avenue to Del Rosa Drive

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,594 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,959 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.99	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-17.84	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.57	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.7	58.6	67.3	67.9
Medium Trucks:	60.5	59.0	52.7	51.1	59.6	59.8
Heavy Trucks:	63.6	62.2	53.2	54.4	62.8	62.9
Vehicle Noise:	70.1	68.4	65.2	60.6	69.1	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	44	94	202	435
CNEL:	47	101	217	467

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 3rd Street | Job Number: 13635
Road Segment: Sterling Avenue to Victoria Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,178 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,118 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.33	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-17.51	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.23	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.7	66.8	65.0	59.0	67.6	68.2
Medium Trucks:	60.9	59.4	53.0	51.5	59.9	60.2
Heavy Trucks:	63.9	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	70.5	68.7	65.6	60.9	69.4	69.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	99	213	458
CNEL:	49	106	228	492

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040 | Project Name: Airport Gateway Specific P
Road Name: 3rd Street | Job Number: 13635
Road Segment: Victoria Avenue to Palm Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,390 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,839 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.71	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.12	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.85	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	66.2	64.4	58.4	67.0	67.6
Medium Trucks:	60.3	58.8	52.4	50.8	59.3	59.5
Heavy Trucks:	63.3	61.9	52.9	54.1	62.5	62.6
Vehicle Noise:	69.8	68.1	65.0	60.3	68.8	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	42	90	194	417
CNEL:	45	96	208	447

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Waterman Avenue | Job Number: 13635
Road Segment: 5th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,255 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,226 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	67 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	3.67	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-15.17	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.90	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.8	68.9	67.1	61.0	69.7	70.3
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.4
Heavy Trucks:	66.7	65.3	56.3	57.5	65.9	66.0
Vehicle Noise:	72.7	71.0	67.7	63.2	71.7	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	65	140	301	648
CNEL:	69	150	322	694

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Waterman Avenue | Job Number: 13635
Road Segment: Baseline Street to 5th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,303 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,930 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	3.25	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-15.58	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.31	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.7	66.8	65.0	58.9	67.6	68.2
Medium Trucks:	61.1	59.6	53.2	51.6	60.1	60.3
Heavy Trucks:	64.6	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	70.6	68.9	65.6	61.1	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	101	218	470
CNEL:	50	108	234	503

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Tippecanoe Avenue | Job Number: 13635
Road Segment: Baseline Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,437 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,044 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.17	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-17.66	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.39	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.4	67.5	65.7	59.6	68.3	68.9
Medium Trucks:	61.6	60.0	53.7	52.1	60.6	60.8
Heavy Trucks:	64.6	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	71.1	69.4	66.2	61.6	70.1	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	45	96	208	447
CNEL:	48	103	223	480

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Tippecanoe Avenue
Road Segment: 6th Street to 3rd Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,388	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,139	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.37	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-17.46	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.19	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.7	65.9	59.8	68.5	69.1
Medium Trucks:	61.8	60.2	53.9	52.3	60.8	61.0
Heavy Trucks:	64.8	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.3	69.6	66.4	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	99	214	461
CNEL:	49	107	230	495

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Tippecanoe Avenue
Road Segment: Mill Street to Orange Show Road /San Bernardino Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	57,683	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	5,768	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.68	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-13.15	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.88	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.0	71.1	69.4	63.3	72.0	72.6
Medium Trucks:	65.2	63.7	57.4	55.8	64.3	64.5
Heavy Trucks:	68.3	66.9	57.8	59.1	67.4	67.6
Vehicle Noise:	74.8	73.1	69.9	65.2	73.8	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	89	193	415	894
CNEL:	96	207	445	959

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Tippecanoe Avenue
Road Segment: 3rd Street to Mill Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	53,690	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	5,369	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.37	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-13.47	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.19	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.4	72.5	70.7	64.7	73.3	73.9
Medium Trucks:	66.6	65.1	58.7	57.2	65.6	65.9
Heavy Trucks:	69.7	68.3	59.2	60.5	68.8	68.9
Vehicle Noise:	76.2	74.4	71.3	66.6	75.1	75.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	110	237	512	1,102
CNEL:	118	255	549	1,182

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Tippecanoe Avenue
Road Segment: Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	38,921	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,892	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	67	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	37.453
Medium Trucks:	37.216
Heavy Trucks:	37.240

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.97	1.78	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-14.86	1.82	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.59	1.82	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.0	71.1	69.3	63.3	71.9	72.5
Medium Trucks:	65.2	63.7	57.3	55.8	64.3	64.5
Heavy Trucks:	68.3	66.9	57.8	59.1	67.4	67.6
Vehicle Noise:	74.8	73.0	69.9	65.2	73.8	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	89	192	413	889
CNEL:	95	206	443	954

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Del Rosa Drive
Road Segment: SR-210 EB Ramps to Highland Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	28,538 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	2,854 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.62	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.21	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.94	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.0	68.1	66.3	60.3	68.9	69.5
Medium Trucks:	62.2	60.7	54.3	52.8	61.2	61.5
Heavy Trucks:	65.2	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	71.8	70.0	66.9	62.2	70.7	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	120	260	559
CNEL:	60	129	278	600

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Del Rosa Drive
Road Segment: Pacific Street to Baseline Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	17,618 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	1,762 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.53	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.31	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.03	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.9	66.0	64.2	58.2	66.8	67.4
Medium Trucks:	60.1	58.6	52.2	50.7	59.1	59.4
Heavy Trucks:	63.2	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	69.7	67.9	64.8	60.1	68.6	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	41	87	188	405
CNEL:	43	94	202	435

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Del Rosa Drive
Road Segment: Highland Avenue to Pacific Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	21,885 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	2,189 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	35 mph		
Near/Far Lane Distance:	14 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	33.0 feet		
Centerline Dist. to Observer:	33.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	2.56	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	75.75	-16.27	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	81.57	-18.00	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.3	66.4	64.7	58.6	67.2	67.8
Medium Trucks:	61.0	59.5	53.1	51.6	60.1	60.3
Heavy Trucks:	65.1	63.7	54.6	55.9	64.2	64.4
Vehicle Noise:	70.5	68.8	65.4	61.0	69.5	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	66	142	307
CNEL:	33	71	152	328

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Del Rosa Drive
Road Segment: Baseline Street to 9th Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	18,647 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	1,865 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.77	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.06	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.79	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	66.2	64.5	58.4	67.0	67.7
Medium Trucks:	60.3	58.8	52.5	50.9	59.4	59.6
Heavy Trucks:	63.4	62.0	52.9	54.2	62.5	62.7
Vehicle Noise:	69.9	68.2	65.0	60.3	68.9	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	42	91	195	421
CNEL:	45	97	210	452

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: 9th Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,802	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,880	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.81	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-18.02	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.75	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	66.3	64.5	58.5	67.1	67.7
Medium Trucks:	60.4	58.9	52.5	50.9	59.4	59.6
Heavy Trucks:	63.4	62.0	53.0	54.2	62.6	62.7
Vehicle Noise:	69.9	68.2	65.1	60.4	68.9	69.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	42	91	196	423
CNEL:	45	98	211	454

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Sterling Avenue | Job Number: 13635
Road Segment: Base Line to 9th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,871	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,687	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.85	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-17.98	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.71	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	64.4	62.6	56.6	65.2	65.8
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	57.9
Heavy Trucks:	62.2	60.8	51.8	53.0	61.4	61.5
Vehicle Noise:	68.2	66.5	63.2	58.7	67.2	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	70	151	325
CNEL:	35	75	162	348

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Del Rosa Drive | Job Number: 13635
Road Segment: 6th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,758	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,476	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.24	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.08	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.80	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.5	57.4	66.0	66.6
Medium Trucks:	59.3	57.8	51.4	49.9	58.4	58.6
Heavy Trucks:	62.4	61.0	51.9	53.2	61.5	61.7
Vehicle Noise:	68.9	67.1	64.0	59.3	67.9	68.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	78	167	360
CNEL:	39	83	179	386

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Sterling Avenue | Job Number: 13635
Road Segment: 9th Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,551	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,655	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.77	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-18.07	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.79	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.3	62.5	56.5	65.1	65.7
Medium Trucks:	58.6	57.1	50.7	49.2	57.6	57.9
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4
Vehicle Noise:	68.1	66.4	63.1	58.6	67.1	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	69	149	321
CNEL:	34	74	160	344

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Sterling Avenue
Road Segment: 6th Street to 3rd Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,001 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,900 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.37	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-17.47	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.19	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.9	63.1	57.1	65.7	66.3
Medium Trucks:	59.2	57.7	51.3	49.8	58.2	58.5
Heavy Trucks:	62.7	61.3	52.3	53.5	61.9	62.0
Vehicle Noise:	68.7	67.0	63.7	59.2	67.7	68.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	35	76	164	352
CNEL:	38	81	175	377

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Victoria Avenue
Road Segment: Pacific Street to Base Line
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	22,899 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,290 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.18	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-16.66	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-18.38	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.8	58.7	67.3	67.9
Medium Trucks:	60.8	59.3	53.0	51.4	59.9	60.1
Heavy Trucks:	64.4	63.0	53.9	55.2	63.5	63.6
Vehicle Noise:	70.4	68.6	65.4	60.8	69.4	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	40	86	185	399
CNEL:	43	92	198	427

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Victoria Avenue
Road Segment: Highland Avenue to Pacific Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	30,874 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,087 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	3.48	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-15.36	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.09	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.7	67.8	66.1	60.0	68.6	69.2
Medium Trucks:	62.1	60.6	54.3	52.7	61.2	61.4
Heavy Trucks:	65.7	64.3	55.2	56.5	64.8	64.9
Vehicle Noise:	71.7	69.9	66.7	62.1	70.7	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	226	487
CNEL:	52	112	242	521

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: Victoria Avenue
Road Segment: Base Line to 9th Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,319 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,832 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.70	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-18.14	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.86	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.9	67.0	65.2	59.2	67.8	68.4
Medium Trucks:	61.1	59.6	53.2	51.7	60.1	60.4
Heavy Trucks:	64.2	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	70.7	68.9	65.8	61.1	69.6	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	42	90	193	416
CNEL:	45	96	207	446

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Victoria Avenue | Job Number: 13635
Road Segment: 9th Street to 6th Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,558	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,556	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.01	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-18.85	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.57	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	66.3	64.5	58.5	67.1	67.7
Medium Trucks:	60.4	58.9	52.5	51.0	59.4	59.7
Heavy Trucks:	63.4	62.0	53.0	54.2	62.6	62.7
Vehicle Noise:	69.9	68.2	65.1	60.4	68.9	69.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	80	173	373
CNEL:	40	86	186	400

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: 6th Street | Job Number: 13635
Road Segment: Tippecanoe Avenue to Del Rosa Drive

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,601	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	660	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	20	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	30.0	feet
Centerline Dist. to Observer:	30.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.22	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-22.06	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-23.78	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.7	61.9	55.9	64.5	65.1
Medium Trucks:	58.0	56.5	50.2	48.6	57.1	57.3
Heavy Trucks:	61.6	60.2	51.1	52.4	60.7	60.9
Vehicle Noise:	67.6	65.8	62.5	58.0	66.5	67.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	18	38	82	176
CNEL:	19	41	88	189

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: Victoria Avenue | Job Number: 13635
Road Segment: 6th Street to 3rd Street

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,593	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,359	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	24	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	44.0	feet
Centerline Dist. to Observer:	44.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.626
Medium Trucks:	42.418
Heavy Trucks:	42.439

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.60	0.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-19.43	0.97	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-21.16	0.96	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.7	63.9	57.9	66.5	67.1
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	62.9	61.4	52.4	53.6	62.0	62.1
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	34	73	158	341
CNEL:	37	79	170	366

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: 6th Street | Job Number: 13635
Road Segment: Del Rosa Drive to Sterling Avenue

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,461	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,046	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	20	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	30.0	feet
Centerline Dist. to Observer:	30.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.22	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-20.06	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.79	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.7	63.9	57.9	66.5	67.1
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.6	62.2	53.1	54.4	62.7	62.9
Vehicle Noise:	69.6	67.8	64.5	60.0	68.5	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	52	111	240
CNEL:	26	55	119	257

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 6th Street
Road Segment: Sterling Avenue to Victoria Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,810 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,481 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.29	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-18.55	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-20.28	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.1	67.2	65.4	59.4	68.0	68.6
Medium Trucks:	61.5	60.0	53.7	52.1	60.6	60.8
Heavy Trucks:	65.1	63.7	54.6	55.9	64.2	64.4
Vehicle Noise:	71.1	69.3	66.0	61.5	70.1	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	30	65	140	302
CNEL:	32	70	150	324

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 5th Street
Road Segment: I-215 NB Ramps to E Street
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	49,877 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	4,988 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.05	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-13.79	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.51	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.4	70.5	68.8	62.7	71.3	71.9
Medium Trucks:	64.6	63.1	56.7	55.2	63.6	63.9
Heavy Trucks:	67.7	66.2	57.2	58.5	66.8	66.9
Vehicle Noise:	74.2	72.4	69.3	64.6	73.2	73.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	81	175	377	811
CNEL:	87	187	404	870

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 6th Street
Road Segment: Victoria Avenue to Central Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,715 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,272 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	20 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	28.723
Medium Trucks:	28.413
Heavy Trucks:	28.444

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.38	3.51	-1.20	-4.49	0.000	0.000
Medium Trucks:	77.72	-19.21	3.58	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-20.94	3.57	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.8	58.7	67.3	68.0
Medium Trucks:	60.9	59.4	53.0	51.5	59.9	60.2
Heavy Trucks:	64.4	63.0	54.0	55.2	63.6	63.7
Vehicle Noise:	70.4	68.7	65.4	60.9	69.4	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	59	127	273
CNEL:	29	63	136	292

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 5th Street
Road Segment: E Street to Waterman Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,053 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,505 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	27 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.52	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.32	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.05	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	69.0	67.2	61.2	69.8	70.4
Medium Trucks:	63.1	61.6	55.2	53.6	62.1	62.3
Heavy Trucks:	66.1	64.7	55.7	56.9	65.3	65.4
Vehicle Noise:	72.6	70.9	67.8	63.1	71.6	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	64	138	298	641
CNEL:	69	148	319	688

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 5th Street
Road Segment: Waterman Avenue to Tippecanoe Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,783	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,678	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.35	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-16.49	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-18.21	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.3	70.4	68.6	62.6	71.2	71.8
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8
Heavy Trucks:	67.6	66.1	57.1	58.4	66.7	66.8
Vehicle Noise:	74.1	72.3	69.2	64.5	73.0	73.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	113	244	525
CNEL:	56	121	262	564

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 5th Street
Road Segment: Del Rosa Drive to Sterling Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,191	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,119	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.01	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.83	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.55	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.4	68.5	66.7	60.7	69.3	69.9
Medium Trucks:	62.6	61.0	54.7	53.1	61.6	61.8
Heavy Trucks:	65.6	64.2	55.2	56.4	64.8	64.9
Vehicle Noise:	72.1	70.4	67.3	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	275	593
CNEL:	64	137	295	636

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 5th Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,430	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,943	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.76	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-16.08	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-17.80	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.7	70.8	69.0	63.0	71.6	72.2
Medium Trucks:	64.9	63.4	57.0	55.5	63.9	64.2
Heavy Trucks:	68.0	66.6	57.5	58.8	67.1	67.2
Vehicle Noise:	74.5	72.7	69.6	64.9	73.4	73.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	260	559
CNEL:	60	129	279	600

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 5th Street
Road Segment: Sterling Avenue to Victoria Avenue
Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	30,469	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,047	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	14	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	33.0	feet
Centerline Dist. to Observer:	33.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.634
Medium Trucks:	32.362
Heavy Trucks:	32.389

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.91	2.68	-1.20	-4.52	0.000	0.000
Medium Trucks:	79.45	-15.93	2.73	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-17.65	2.73	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.8	70.9	69.2	63.1	71.7	72.4
Medium Trucks:	65.1	63.5	57.2	55.6	64.1	64.3
Heavy Trucks:	68.1	66.7	57.7	58.9	67.3	67.4
Vehicle Noise:	74.6	72.9	69.7	65.0	73.6	74.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	123	266	573
CNEL:	61	132	285	614

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Victoria Avenue to Central Avenue

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	34,273 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	3,427 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.42	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.42	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.14	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.8	68.9	67.1	61.1	69.7	70.3
Medium Trucks:	63.0	61.5	55.1	53.6	62.0	62.2
Heavy Trucks:	66.0	64.6	55.6	56.8	65.2	65.3
Vehicle Noise:	72.5	70.8	67.7	63.0	71.5	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	136	293	632
CNEL:	68	146	315	678

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Palm Avenue to SR-210 EB Ramps

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	59,869 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	5,987 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	5.84	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-12.99	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.72	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.2	71.3	69.5	63.5	72.1	72.7
Medium Trucks:	65.4	63.9	57.5	56.0	64.4	64.7
Heavy Trucks:	68.5	67.0	58.0	59.3	67.6	67.7
Vehicle Noise:	75.0	73.2	70.1	65.4	73.9	74.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	92	197	425	916
CNEL:	98	212	456	983

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: 5th Street | Job Number: 13635
Road Segment: Central Avenue to Palm Avenue

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	37,004 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	3,700 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.75	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.08	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.81	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.1	69.2	67.5	61.4	70.0	70.6
Medium Trucks:	63.3	61.8	55.4	53.9	62.3	62.6
Heavy Trucks:	66.4	65.0	55.9	57.2	65.5	65.6
Vehicle Noise:	72.9	71.1	68.0	63.3	71.9	72.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	66	143	309	665
CNEL:	71	154	331	713

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project | Project Name: Airport Gateway Specific P
Road Name: 3rd Street | Job Number: 13635
Road Segment: Waterman Avenue to Tippecanoe Avenue

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	14,847 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	1,485 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	27 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.22	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-19.05	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.78	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.2	65.3	63.5	57.4	66.1	66.7
Medium Trucks:	59.3	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	62.4	61.0	51.9	53.2	61.6	61.7
Vehicle Noise:	68.9	67.2	64.0	59.3	67.9	68.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	78	168	362
CNEL:	39	84	180	388

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 3rd Street
Road Segment: Tippecanoe Avenue to Del Rosa Drive

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,093	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	3,109	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.00	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-15.84	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.57	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.4	68.5	66.7	60.6	69.3	69.9
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8
Heavy Trucks:	65.6	64.2	55.2	56.4	64.8	64.9
Vehicle Noise:	72.1	70.4	67.2	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	275	592
CNEL:	64	137	295	635

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 3rd Street
Road Segment: Sterling Avenue to Victoria Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,383	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,738	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.44	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.39	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.12	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.1	60.1	68.7	69.3
Medium Trucks:	62.0	60.5	54.1	52.6	61.0	61.3
Heavy Trucks:	65.1	63.6	54.6	55.9	64.2	64.3
Vehicle Noise:	71.6	69.8	66.7	62.0	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	117	252	544
CNEL:	58	126	271	584

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 3rd Street
Road Segment: Del Rosa Drive to Sterling Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	44,963	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	4,496	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.60	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-14.24	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.96	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.0	70.1	68.3	62.2	70.9	71.5
Medium Trucks:	64.1	62.6	56.3	54.7	63.2	63.4
Heavy Trucks:	67.2	65.8	56.8	58.0	66.4	66.5
Vehicle Noise:	73.7	72.0	68.8	64.2	72.7	73.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	76	163	351	757
CNEL:	81	175	377	812

Thursday, November 19, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: 2040+Project
Road Name: 3rd Street
Road Segment: Victoria Avenue to Palm Avenue

Project Name: Airport Gateway Specific P
Job Number: 13635

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	24,799	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	2,480	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	27	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.86%
Medium Trucks:	84.8%	4.9%	10.3%	1.28%
Heavy Trucks:	86.5%	2.7%	10.8%	0.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	48.402
Medium Trucks:	48.219
Heavy Trucks:	48.237

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.01	0.11	-1.20	-4.65	0.000	0.000
Medium Trucks:	79.45	-16.82	0.13	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.55	0.13	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.4	67.5	65.7	59.7	68.3	68.9
Medium Trucks:	61.6	60.1	53.7	52.1	60.6	60.8
Heavy Trucks:	64.6	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	71.1	69.4	66.3	61.6	70.1	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	110	236	509
CNEL:	55	118	254	546

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APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS

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13635 - Airport Gateway Specific Plan

CadnaA Noise Prediction Model: 13635-05.cna
Date: 02.12.20
Analyst: S. Shami

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	62.9	62.9	69.5	65.0	65.0	0.0				5.00	a	6256637.16	2349146.71	5.00
RECEIVERS		R2	62.6	62.6	69.3	65.0	65.0	0.0				5.00	a	6259544.97	2349113.29	5.00
RECEIVERS		R3	62.6	62.6	69.3	65.0	65.0	0.0				5.00	a	6264103.35	2349115.17	5.00
RECEIVERS		R4	62.5	62.5	69.2	65.0	65.0	0.0				5.00	a	6267732.52	2349100.33	5.00
RECEIVERS		R5	60.9	60.9	67.5	65.0	65.0	0.0				5.00	a	6269011.54	2349027.90	5.00
RECEIVERS		R6	62.2	62.2	68.9	65.0	65.0	0.0				5.00	a	6272676.47	2349038.75	5.00
RECEIVERS		R7	62.5	62.5	69.1	65.0	65.0	0.0				5.00	a	6255701.79	2347355.30	5.00
RECEIVERS		R8	61.5	61.5	68.2	65.0	65.0	0.0				5.00	a	6255536.86	2348596.62	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
SITEBOUNDARY		SITEBOUNDARY00001	129.9	129.9	129.9	65.7	65.7	65.7	Lw"	65.7					8

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	8.00	a			6255662.66	2349093.07	8.00	0.00
					6257652.24	2349051.41	8.00	0.00
					6257652.24	2348410.78	8.00	0.00

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
			6259173.07	2348363.91	8.00	0.00
			6259178.28	2349030.57	8.00	0.00
			6266455.19	2349010.93	8.00	0.00
			6268807.27	2348982.11	8.00	0.00
			6268810.75	2348551.56	8.00	0.00
			6268859.36	2348530.73	8.00	0.00
			6270151.02	2348947.39	8.00	0.00
			6270373.25	2349013.36	8.00	0.00
			6270532.97	2349044.61	8.00	0.00
			6270751.72	2349065.45	8.00	0.00
			6271085.05	2349041.14	8.00	0.00
			6271651.02	2349006.42	8.00	0.00
			6272269.08	2348950.86	8.00	0.00
			6272630.19	2348919.61	8.00	0.00
			6272953.11	2348891.84	8.00	0.00
			6273314.22	2348916.14	8.00	0.00
			6273578.11	2348940.45	8.00	0.00
			6273776.02	2348975.17	8.00	0.00
			6273842.00	2349002.95	8.00	0.00
			6274026.02	2349138.36	8.00	0.00
			6274154.50	2349263.36	8.00	0.00
			6274182.27	2349242.53	8.00	0.00
			6274223.94	2349107.11	8.00	0.00
			6274248.25	2348836.28	8.00	0.00
			6274293.39	2348093.23	8.00	0.00
			6274265.61	2347423.09	8.00	0.00
			6272318.78	2347444.50	8.00	0.00
			6271463.74	2347127.66	8.00	0.00
			6270882.14	2347105.96	8.00	0.00
			6270322.25	2346936.69	8.00	0.00
			6270348.29	2347448.84	8.00	0.00
			6270257.14	2347466.20	8.00	0.00
			6268989.78	2347553.01	8.00	0.00
			6266585.27	2347661.51	8.00	0.00
			6265851.76	2347696.24	8.00	0.00
			6264050.55	2347713.60	8.00	0.00
			6262735.44	2347722.28	8.00	0.00
			6260955.93	2347761.34	8.00	0.00
			6260673.81	2347752.66	8.00	0.00
			6260339.61	2347600.75	8.00	0.00
			6259506.28	2347140.68	8.00	0.00
			6259332.66	2347032.17	8.00	0.00
			6259189.44	2346975.75	8.00	0.00
			6259102.63	2346954.05	8.00	0.00
			6258703.32	2346962.73	8.00	0.00
			6256008.01	2346988.77	8.00	0.00
			6256021.03	2347066.89	8.00	0.00
			6255630.41	2347561.69	8.00	0.00

APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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13635 - Airport Gateway Specific Plan

CadnaA Noise Prediction Model: 13635_Construction.cna
Date: 24.11.20
Analyst: S. Shami

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	72.5	72.5	79.1	60.0	55.0	0.0				5.00	a	6256637.16	2349146.71	5.00
RECEIVERS		R2	72.2	72.2	78.9	60.0	55.0	0.0				5.00	a	6259544.97	2349113.29	5.00
RECEIVERS		R3	72.2	72.2	78.9	60.0	55.0	0.0				5.00	a	6264103.35	2349115.17	5.00
RECEIVERS		R4	72.1	72.1	78.8	60.0	55.0	0.0				5.00	a	6267732.52	2349100.33	5.00
RECEIVERS		R5	70.5	70.5	77.1	60.0	55.0	0.0				5.00	a	6269011.54	2349027.90	5.00
RECEIVERS		R6	71.8	71.8	78.5	60.0	55.0	0.0				5.00	a	6272676.47	2349038.75	5.00
RECEIVERS		R7	72.1	72.1	78.7	60.0	55.0	0.0				5.00	a	6255701.79	2347355.30	5.00
RECEIVERS		R8	71.1	71.1	77.8	60.0	55.0	0.0				5.00	a	6255536.86	2348596.62	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
SITEBOUNDARY		SITEBOUNDARY00001	139.5	139.5	139.5	75.3	75.3	75.3	Lw"	75.3					8

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	8.00	a			6255662.66	2349093.07	8.00	0.00
					6257652.24	2349051.41	8.00	0.00
					6257652.24	2348410.78	8.00	0.00

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
			6259173.07	2348363.91	8.00	0.00
			6259178.28	2349030.57	8.00	0.00
			6266455.19	2349010.93	8.00	0.00
			6268807.27	2348982.11	8.00	0.00
			6268810.75	2348551.56	8.00	0.00
			6268859.36	2348530.73	8.00	0.00
			6270151.02	2348947.39	8.00	0.00
			6270373.25	2349013.36	8.00	0.00
			6270532.97	2349044.61	8.00	0.00
			6270751.72	2349065.45	8.00	0.00
			6271085.05	2349041.14	8.00	0.00
			6271651.02	2349006.42	8.00	0.00
			6272269.08	2348950.86	8.00	0.00
			6272630.19	2348919.61	8.00	0.00
			6272953.11	2348891.84	8.00	0.00
			6273314.22	2348916.14	8.00	0.00
			6273578.11	2348940.45	8.00	0.00
			6273776.02	2348975.17	8.00	0.00
			6273842.00	2349002.95	8.00	0.00
			6274026.02	2349138.36	8.00	0.00
			6274154.50	2349263.36	8.00	0.00
			6274182.27	2349242.53	8.00	0.00
			6274223.94	2349107.11	8.00	0.00
			6274248.25	2348836.28	8.00	0.00
			6274293.39	2348093.23	8.00	0.00
			6274265.61	2347423.09	8.00	0.00
			6272318.78	2347444.50	8.00	0.00
			6271463.74	2347127.66	8.00	0.00
			6270882.14	2347105.96	8.00	0.00
			6270322.25	2346936.69	8.00	0.00
			6270348.29	2347448.84	8.00	0.00
			6270257.14	2347466.20	8.00	0.00
			6268989.78	2347553.01	8.00	0.00
			6266585.27	2347661.51	8.00	0.00
			6265851.76	2347696.24	8.00	0.00
			6264050.55	2347713.60	8.00	0.00
			6262735.44	2347722.28	8.00	0.00
			6260955.93	2347761.34	8.00	0.00
			6260673.81	2347752.66	8.00	0.00
			6260339.61	2347600.75	8.00	0.00
			6259506.28	2347140.68	8.00	0.00
			6259332.66	2347032.17	8.00	0.00
			6259189.44	2346975.75	8.00	0.00
			6259102.63	2346954.05	8.00	0.00
			6258703.32	2346962.73	8.00	0.00
			6256008.01	2346988.77	8.00	0.00
			6256021.03	2347066.89	8.00	0.00
			6255630.41	2347561.69	8.00	0.00

APPENDIX 10

Model / Conceptual Relocation Plan

Model/Conceptual Relocation Plan Mitigation

For any development actions that may cause displacement of residential occupants, the Developer shall prepare a relocation plan that complies with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. As a component of the relocation plan, the Developer shall provide an explanation of the relocation requirements that they are complying with, and a detailed relocation plan consistent with one of the above-listed relocation guidelines to include:

1. Introduction.
2. Project description.
3. Assessment of the relocation needs of persons subject to displacement.
4. Assessment of available replacement housing units within proximity to the Project site.
5. Description of the relocation program and guidelines to be followed; and
6. Administrative Provisions to include:
    a. Informational Statement and Notices to be provided.
    b. Description of any citizen participation or outreach efforts.
    c. Grievance procedures.
    d. Project schedule or timelines of any proposed displacement
    e. Estimated budget to provide relocation benefits in accordance with the identified relocation program requirements.

A sample outline of the components of the relocation plan to be prepared, incorporating the above, will include but not be limited to the following outline, methodology, and information:

Section	Description/Detail
I. Introduction	• Introduce of the Project which is causing the displacement of residential households. • Identify the Agency partner(s) and any financial and/or development credits by the Agency(s). • Summarize the displacement(s). • Identify the preparer of the Plan. • Identify the guidelines being followed.
II. Project Description	• Provide a regional and project site location description with diagrammatic sketch or depiction of these areas.
III. Assessment of Relocation Needs	• Identify the survey method (i.e. personal interview, phone, questionnaire, etc.) used to obtain information of the aggregate relocation needs of all persons to be displaced. o Identify information queried. o Identify percentage of those to be displaced that were queried. • Provide data on current occupants to include:

	○ Describe current occupants, household size, number of adults, children, type of dwellings occupied, number of bedrooms, with information categorized between owners and or tenants. ○ Identify replacement housing needs by the total number of required replacement units and distribution of those units by bedroom size based on housing occupancy standards adopted by the Agency; state standard used. ○ Identify number of overcrowded units that the number of bedroom units were increased to meet housing occupancy standards. ○ Provide reported gross household income. ○ Provide reported household ethnicity and predominant language used. ○ Provide reported Senior and or handicapped household(s). ○ Describe preferred relocation areas ○ Provide other issues or special needs of household or replacement site needs.
IV. Relocation Resources	• Identify the methods, sources, and areas researched for finding available residential units. • Provide a written analysis of available relocation housing resources to include: ○ Available rental housing by type of dwellings and number of bedrooms needed and rental ranges. ○ Available for sale housing by type of dwellings and number of bedrooms needed and for sale cost ranges. ○ Where sufficient comparable replacement housing resources exist for all potential residential displaces, provide a statement detailing such resources. Where sufficient comparable replacement housing resources does not exist, provide a written determination that the necessary resources will be available before displacement could occur.
V. Relocation Program	• Provide a detailed description of the relocation advisory services program, including specific procedures for locating and referring eligible persons to comparable replacement housing. • Provide a description of the relocation payments to be made for each type of occupant, including a plan for

	disbursement based on the appropriate relocation guidelines.
VI. Administrative Provisions	• Provide a description of notices and informational statement regarding payment of relocation benefits to be provided to all permanently displaced households to include: o General Information Notice (GIN), o Informational Statement, o Notice of Eligibility (NOE), and o Vacate Notice • Provide plans for citizen participation or outreach efforts conducted. • Describe grievance procedures for persons dissatisfied with a determination including, but not limited to eligibility for benefits, payment amount, failure to provide comparable housing, and/or property management practices. • Provide the projected dates of displacement. • Provide a cost estimate for carrying out the plan and identification of the source(s) of necessary funds.

Before proceeding with and causing displacement of individuals and households, general notice of the plan shall be provided, and notice shall be designed to reach the occupants of all properties to be displaced, and shall be provided 30 days prior to submission to the Agency for approval.

APPENDIX 11a

Traffic Impact Study (Draft)

DRAFT -- TRAFFIC IMPACT STUDY -- DRAFT
FOR THE
AIRPORT GATEWAY SPECIFIC PLAN PROJECT
IN THE CITIES OF SAN BERNARDINO AND HIGHLAND

Prepared by:

Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, California 92868

July, 2019

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DRAFT -- TRAFFIC IMPACT STUDY -- DRAFT
FOR THE
AIRPORT GATEWAY SPECIFIC PLAN PROJECT
IN THE CITIES OF SAN BERNARDINO AND HIGHLAND

INTRODUCTION

Purpose and Study Objectives

This traffic impact study has been prepared to address the traffic-related impacts of the proposed Airport Gateway Specific Plan located in the Cities of San Bernardino and Highland. This traffic impact study has been conducted in accordance with the traffic study requirements of the Cities of San Bernardino and Highland, and in accordance with the San Bernardino Association of Governments (SANBAG) Congestion Management Program (CMP) requirements.

This report includes a description of existing traffic conditions in the surrounding area, estimated project trip generation and distribution, future traffic growth, and an assessment of project-related impacts on the roadway system. Where necessary, circulation system improvements have been identified to mitigate significant project impacts at the study locations.

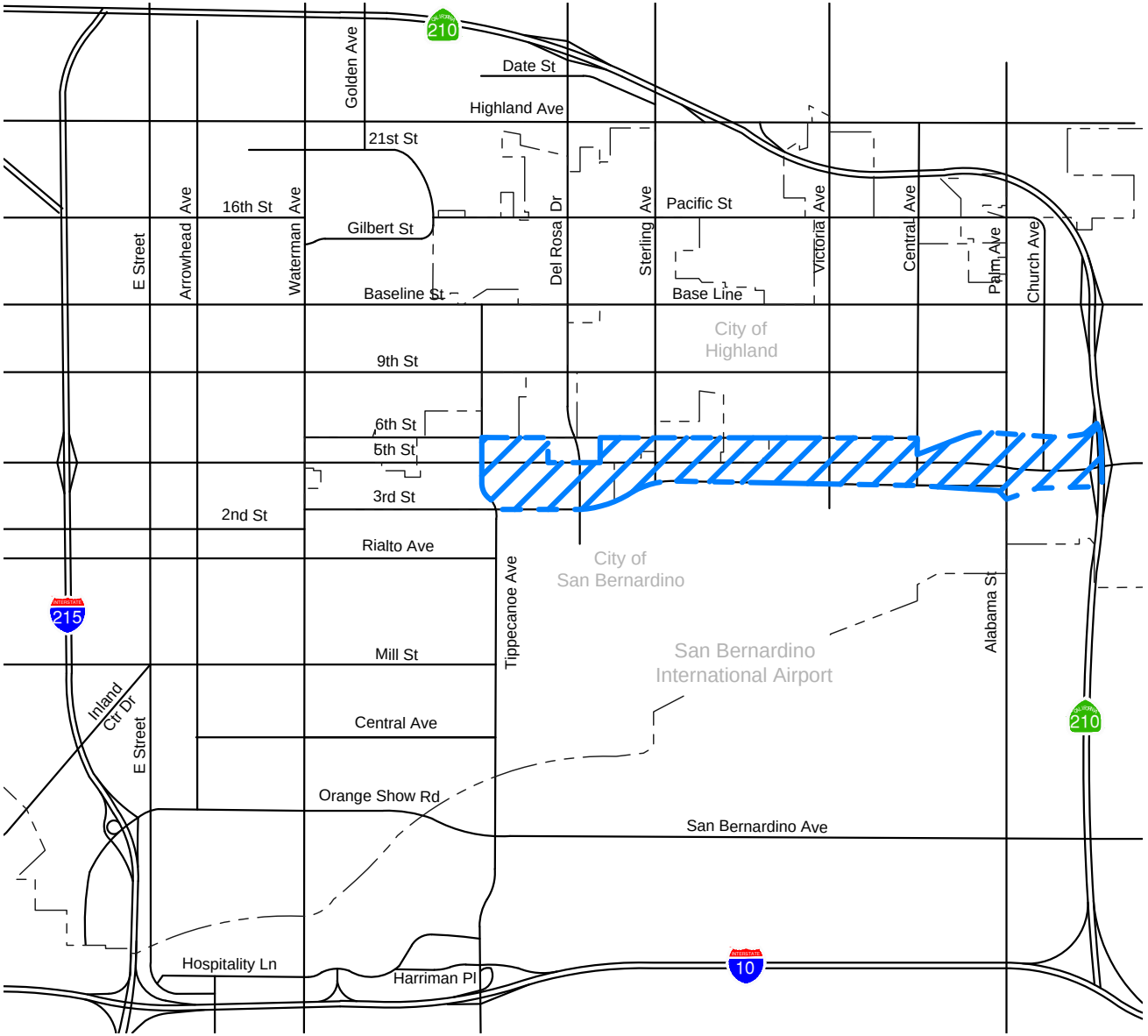
PROJECT DESCRIPTION

The Airport Gateway Specific Plan (AGSP) area covers approximately 670 acres, located immediately north of the San Bernardino International Airport (SBIA). The Specific Plan area is bounded generally by 6th Street and Highland Creek on the north, 3rd Street and the SBIA on the south, State Route 210 (SR-210) on the east, and Tippecanoe Avenue on the west. The North of the Specific Plan area (on the north side of 6th Street) is bordered by a mix of low- and medium-density residential uses and vacant parcels, as well as several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park and the Highland Branch Library.

The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (185 acres). The Project site is shown in its regional setting on Figure 1. The Specific Plan area is depicted on Figure 2.

The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area.

The AGSP would replace the existing uses within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail/hotel uses. Development of the Specific Plan area will be accomplished over time, as market conditions allow, and as developers are successful in assembling individual parcels into parcels large enough for the allowed uses.



NOT TO SCALE

LEGEND:

= Specific Plan Area

= City Boundaries

FIGURE 1
VICINITY MAP

Kimley»Horn

NOT TO SCALE

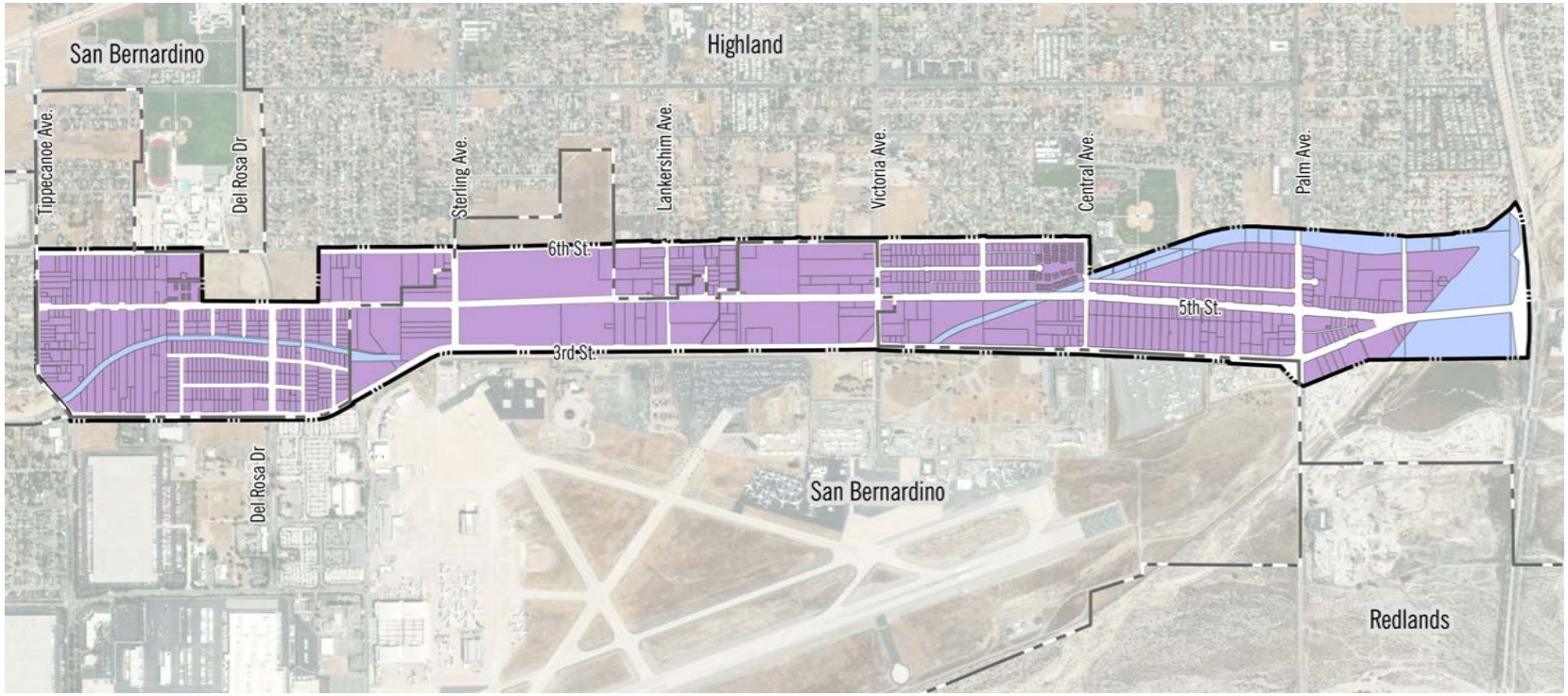


FIGURE 2
SPECIFIC PLAN AREA

ANALYSIS SCENARIOS AND METHODOLOGY

Analysis Scenarios

The project will be evaluated for the following study scenarios:

- Existing Conditions
- Existing Plus Project
- Future Build-Out 2040
- Future Build-Out 2040 Plus Project
    - With Mitigation, if necessary

Study Locations

The study locations were established in consultation with traffic engineering staff from the Cities of San Bernardino and Highland through the Scoping Agreement process. A copy of the approved Scope of Study Forms is provided in *Appendix A*.

The study locations are shown on Figure 3.

Study Intersections:

Int. #	Intersection	Jurisdiction	Traffic Control
1	Del Rosa Avenue at I-210 WB Ramps	Caltrans	S
2	Del Rosa Avenue at I-210 EB Ramps	Caltrans	S
3	Date Street at Del Rosa Avenue	San Bernardino	S
4	Highland Avenue at Del Rosa Avenue	San Bernardino	S
5	Highland Avenue at I-210 EB Off-Ramp	Caltrans	S
6	Highland Avenue at I-210 WB On-Ramp	Caltrans	S
7	Victoria Avenue at Highland Avenue	Highland	S
8	Del Rosa Drive at Pacific Street	Highland	S
9	Victoria Avenue at Pacific Street	Highland	S
10	Victoria Avenue at 14th Street	Highland	S
11	Tippecanoe Avenue at Baseline Street	San Bernardino	S
12	Del Rosa Drive at Baseline Street	San Bernardino	S
13	Sterling Avenue at Base Line	Highland	S
14	Victoria Avenue at Base Line	Highland	S
15	Tippecanoe Avenue at 9th Street	Highland	S
16	Del Rosa Drive at 9th Street	San Bernardino	S
17	Sterling Avenue at 9th Street	Highland	S
18	Victoria Avenue at 9th Street	Highland	S

Int. #	Intersection	Jurisdiction [1]	Traffic Control
19	Del Rosa Drive at 6th Street	San Bernardino	S
20	Sterling Avenue at 6th Street	San Bernardino	U
21	Victoria Avenue at 6th Street	Highland	U
22	Central Avenue at 6th Street	San Bernardino	U
23	5th Street at I-215 SB Ramps	Caltrans	S
24	5th Street at I-215 NB Ramps	Caltrans	S
25	E Street at 5th Street	San Bernardino	S
26	Arrowhead Avenue at 5th Street	San Bernardino	S
27	Waterman Avenue at 5th Street	San Bernardino	S
28	Tippecanoe Avenue at 5th Street	Highland	S
29	Del Rosa Drive at 5th Street	Highland	S
30	Sterling Avenue at 5th Street	San Bernardino	S
31	Victoria Avenue at 5th Street	Highland	S
32	Central Avenue at 5th Street	Highland	S
33	Palm Avenue at 5th Street	Highland	S
34	Church Avenue at 5th Street	Highland	S
35	5th Street at SR-210 EB Ramps	Caltrans	S
36	5th Street at SR-210 WB Ramps	Caltrans	S
37	Tippecanoe Avenue at 3rd Street	San Bernardino	S
38	Del Rosa Avenue at 3rd Street	San Bernardino	S
39	Sterling Avenue at 3rd Street	San Bernardino	S
40	Victoria Avenue at 3rd Street	Highland	S
41	Central Avenue at 3rd Street	Highland	U
42	Palm Avenue at 3rd Street	Highland	S
43	Tippecanoe Avenue at Rialto Street	San Bernardino	S
44	Tippecanoe Avenue at Mill Street	San Bernardino	S
45	Tippecanoe Avenue at Central Avenue	San Bernardino	S
46	Tippecanoe Avenue at San Bernardino Avenue/ Orange Show Road	San Bernardino	S
47	Tippecanoe Avenue at Hospitality Lane	San Bernardino	S
48	Tippecanoe Avenue at I-10 WB Off-Ramp / Harriman Place	Caltrans	S
49	Tippecanoe Avenue at I-10 EB Ramps	Caltrans	S

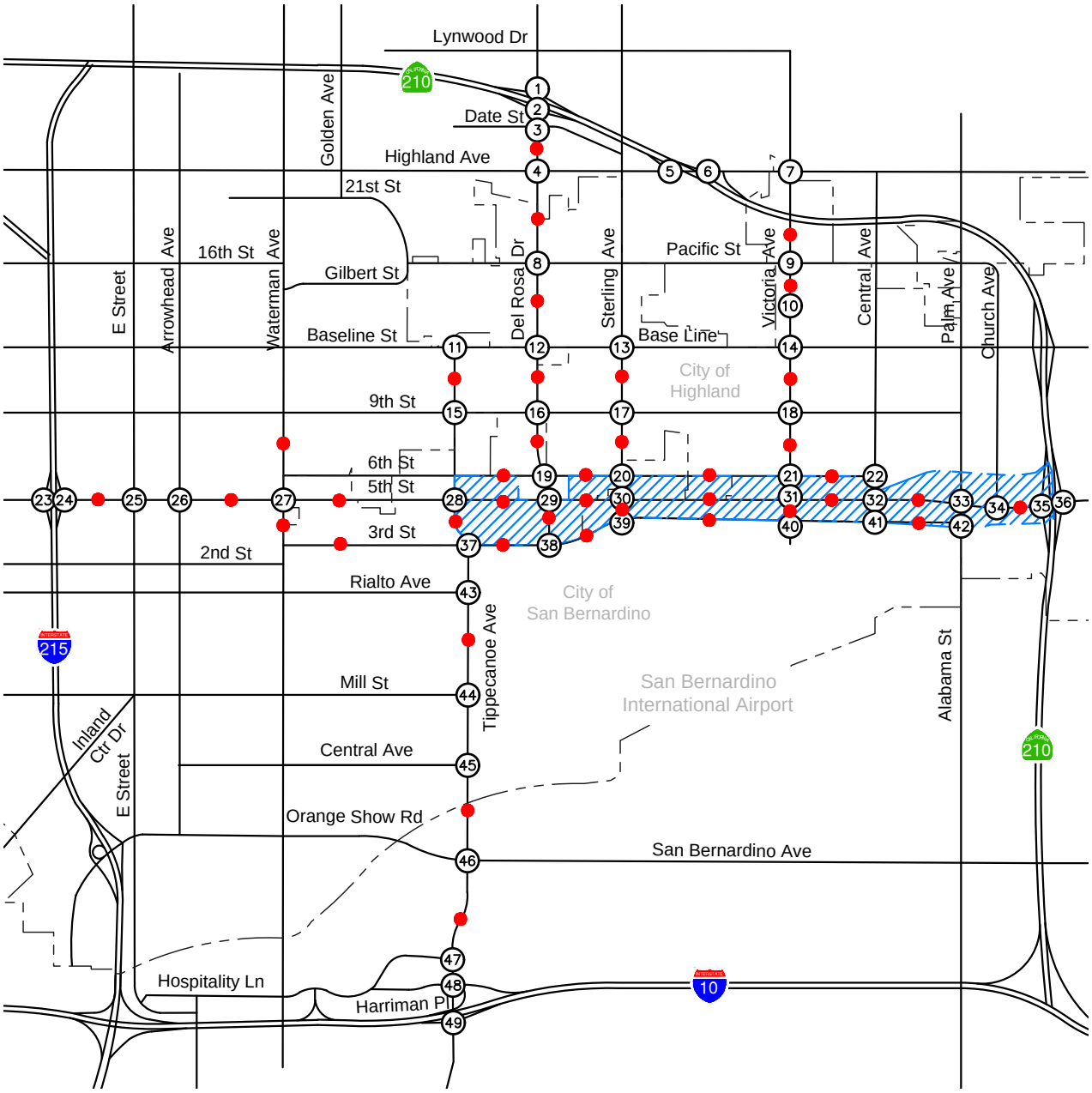
[1] Intersections located on the border between the two cities are shown on this table according to which city is responsible for the maintenance of the signal.

S = Signalized U = Unsignalized

Study Roadway Segments

1. Waterman Avenue – Baseline Street to 5th Street
2. Waterman Avenue – 5th Street to 3rd Street
3. Tippecanoe Avenue – Baseline Street to 6th Street
4. Tippecanoe Avenue – 6th Street to 3rd Street
5. Tippecanoe Avenue – 3rd Street to Mill Street
6. Tippecanoe Avenue – Mill Street to Orange Show Road / San Bernardino Avenue
7. Tippecanoe Avenue – Orange Show/San Bernardino Ave to Harriman Place/I-10 WB Ramps
8. Del Rosa Drive – SR-210 EB Ramps to Highland Avenue
9. Del Rosa Drive – Highland Avenue to Pacific Street
10. Del Rosa Drive – Pacific Street to Baseline Street
11. Del Rosa Drive – Baseline Street to 9th Street
12. Del Rosa Drive – 9th Street to 6th Street
13. Del Rosa Drive – 6th Street to 3rd Street
14. Sterling Avenue – Base Line to 9th Street
15. Sterling Avenue – 9th Street to 6th Street
16. Sterling Avenue – 6th Street to 3rd Street
17. Victoria Avenue – Highland Avenue to Pacific Street
18. Victoria Avenue – Pacific Street to Base Line
19. Victoria Avenue – Base Line to 9th Street
20. Victoria Avenue – 9th Street to 6th Street
21. Victoria Avenue – 6th Street to 3rd Street
22. 6th Street – Tippecanoe Avenue to Del Rosa Drive
23. 6th Street – Del Rosa Drive to Sterling Avenue
24. 6th Street – Sterling Avenue to Victoria Avenue
25. 6th Street – Victoria Avenue to Central Avenue
26. 5th Street – I-215 NB Ramps to E Street
27. 5th Street – E Street to Waterman Avenue
28. 5th Street – Waterman Avenue to Tippecanoe Avenue
29. 5th Street – Tippecanoe Avenue to Del Rosa Drive
30. 5th Street – Del Rosa Drive to Sterling Avenue
31. 5th Street – Sterling Avenue to Victoria Avenue
32. 5th Street – Victoria Avenue to Central Avenue
33. 5th Street – Central Avenue to Palm Avenue
34. 5th Street – Palm Avenue to SR-210 EB Ramps
35. 3rd Street – Waterman Avenue to Tippecanoe Avenue
36. 3rd Street – Tippecanoe Avenue to Del Rosa Drive
37. 3rd Street – Del Rosa Drive to Sterling Avenue
38. 3rd Street – Sterling Avenue to Victoria Avenue
39. 3rd Street – Victoria Avenue to Palm Avenue

NOT TO SCALE



LEGEND:

= Specific Plan Area

= City Boundaries

= Study Intersection

= Study Roadway Segment

FIGURE 3
STUDY AREA

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ANALYSIS METHODOLOGY

Intersection Analysis – HCM Methodology

Peak hour intersection operations are evaluated using the methodology outlined in the Highway Capacity Manual (HCM), consistent with the requirements of the Cities of San Bernardino and Highland and the San Bernardino County CMP. The intersection analysis was conducted using the Vistro software program and using the input parameters specified in the San Bernardino County CMP.

Per the HCM Methodology, Level of Service (LOS) for signalized intersections is defined in terms of average vehicle delay for all intersection movements during the peak hour. Specifically, LOS criteria are stated in terms of the average control delay per vehicle, which includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay. Level of Service for unsignalized intersections is based on the average vehicle delay for the intersection approach or movement that has the worst (highest) delay.

The following charts provide a description of the operating characteristics of each Level of Service and average seconds of delay for signalized and unsignalized intersections.

LEVEL OF SERVICE DEFINITIONS	
Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS		
Level of Service [1]	Signalized Intersection (Average delay per vehicle, in seconds) [2]	Unsignalized Intersections (Average delay per vehicle, in seconds) [3]
A	≤ 10	0 – 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

[1] Per the San Bernardino County CMP, intersections will be considered operating at LOS F if the critical v/c ratio equals or exceeds 1.00.
[2] Source: Highway Capacity Manual (HCM 2010), Exhibit 18-4.
[3] Source: Highway Capacity Manual (HCM 2010), Exhibits 19-1 and 20-2.

Roadway Segment Analysis

The roadway segment analysis will address the project's impact on daily operating conditions on roadways within the project vicinity. Roadway segments are evaluated by comparing the daily traffic volume to the daily capacity of that segment, to determine the volume-to-capacity (v/c) ratio. Daily capacity is based on the roadway classification in the City of San Bernardino, as shown in the following chart:

DAILY ROADWAY CAPACITY		
Roadway Classification	Number of Lanes	Daily Capacity (Vehicles per day)
Major Arterial	6	60,000
Major Arterial	4	40,000
Major Arterial	2	15,000
Secondary Arterial	4	30,000
Secondary Arterial	2	12,000
Collector Street	4	25,000
Collector Street	2	10,000
Source: City of San Bernardino General Plan		

Many of the study roadway segments cross city boundaries between the Cities of San Bernardino and Highland. In several cases, the city boundary runs down the middle of the roadway and the Cities of San Bernardino and Highland have assigned different functional classifications to the roadway.

It should also be noted that the City of Highland evaluates roadway segments using a different methodology, based on the HCM Base Free-Flow Speed (BFFS) approach. For purposes of this joint study, all roadway segments are evaluated using the daily capacity methodology presented above. If a roadway segment located wholly within the City of Highland is found to be deficient based on the daily capacity methodology, that roadway segment will be re-evaluated using the BFFS approach.

Level of Service Standards and Measure of Significance

City of San Bernardino

The City of San Bernardino General Plan Circulation Element establishes minimum Level of Service standards, which require that City intersections operate at LOS D or better during the morning and evening peak hours, and that roadway segments operate at LOS C or better. Traffic impacts at an intersection are considered to be significant when any of the following changes in the volume-to-capacity (V/C) ratio occurs between the "without project" and the "with project" conditions:

LOS Without Project	V/C Difference
C	> 0.0400
D	> 0.0200
E, F	> 0.0100

New development is required to mitigate impacts where the project results in a significant impact as shown above.

City of Highland

The Level of Service standard for intersections in the City of Highland is LOS D or better for peak hour operations. A significant project impact would occur when the addition of project-related traffic causes an intersection to change from an acceptable Level of Service (LOS D or better) to LOS E or F.

State-Controlled Intersections (Caltrans)

For State-controlled intersections, Caltrans' Level of Service standards and impact criteria will apply. The Caltrans *Guide for the Preparation of Traffic Impact Studies* (2003) states that, "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE (measure of effectiveness) should be maintained.

General Plan Circulation Plans

The City of San Bernardino General Plan Circulation Plan and the City of Highland General Plan Circulation Element provide roadway designations for the roadway system serving the Specific Plan area and the surrounding vicinity. A copy of the City of San Bernardino Circulation Plan and Standard Cross Sections is provided on Figure 4. A copy of the City of Highland Circulation Element and Standard Cross Sections is provided on Figure 5.

EXISTING TRAFFIC CONDITIONS

Existing Street System

Regional access to the site is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the project. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5 miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan eastern boundary.

The following provides a description of the roadways surrounding the Specific Plan area.

Waterman Avenue is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. The speed limit is 40 miles per hour (MPH) and on-street parking is prohibited on both sides. Waterman Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial.

Tippecanoe Avenue is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane. Tippecanoe Avenue will form the westernmost boundary of the Specific Plan area. The speed limit ranges from 30 to 45 MPH and on-street parking is prohibited on both sides. Tippecanoe Avenue is designated on the City of San Bernardino's Circulation Plan as a Secondary Arterial north of 3rd Street and a Major Arterial south of 3rd Street; Tippecanoe Avenue is designated on the City of Highland's Circulation Element as a Secondary Highway.

Del Rosa Drive is a north-south roadway that provides one to two lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. Del Rosa Drive extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 35 to 45 MPH, with a 25-MPH school zone from Baseline Street to 6th Street. Del Rosa Drive is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Secondary Highway.

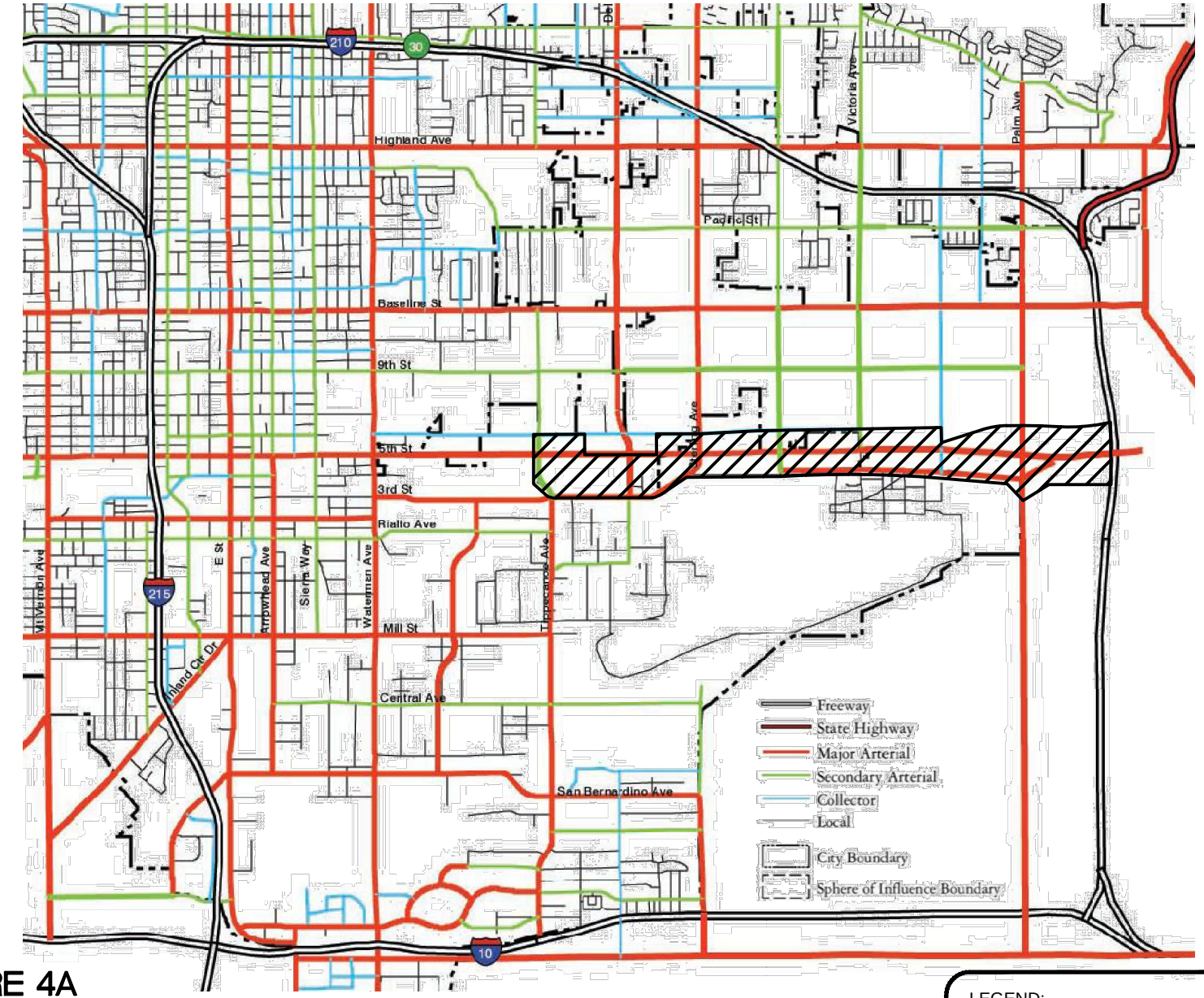
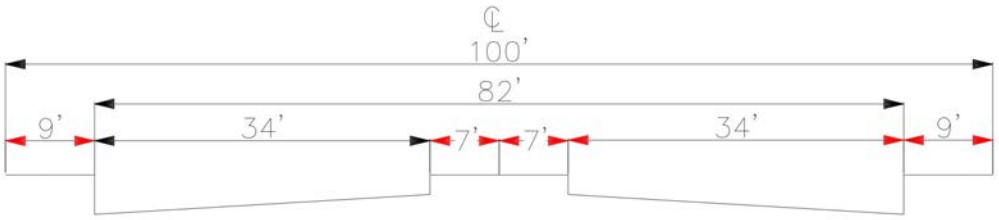


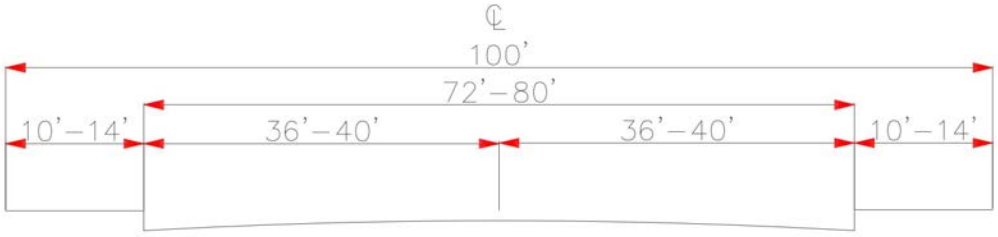
FIGURE 4A
CITY OF SAN BERNARDINO
CIRCULATION PLAN

LEGEND:
= Specific Plan Area

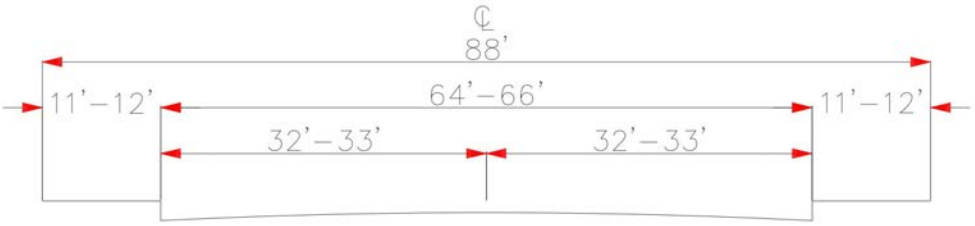
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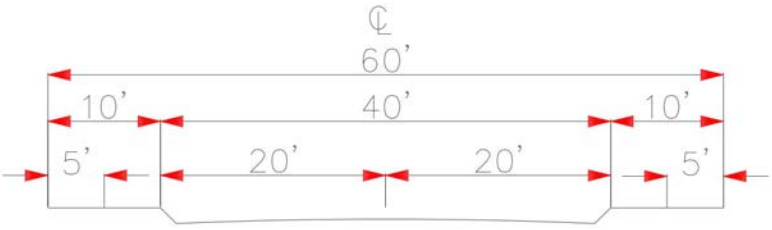
MAJOR DIVIDED HIGHWAYS



MAJOR HIGHWAY



SECONDARY HIGHWAY



COLLECTOR STREET

FOR USE IN QUARTER MILE STREETS,
SCHOOL AND INDUSTRIAL AREAS.

FIGURE 4B
CITY OF SAN BERNARDINO
STANDARD CROSS SECTIONS

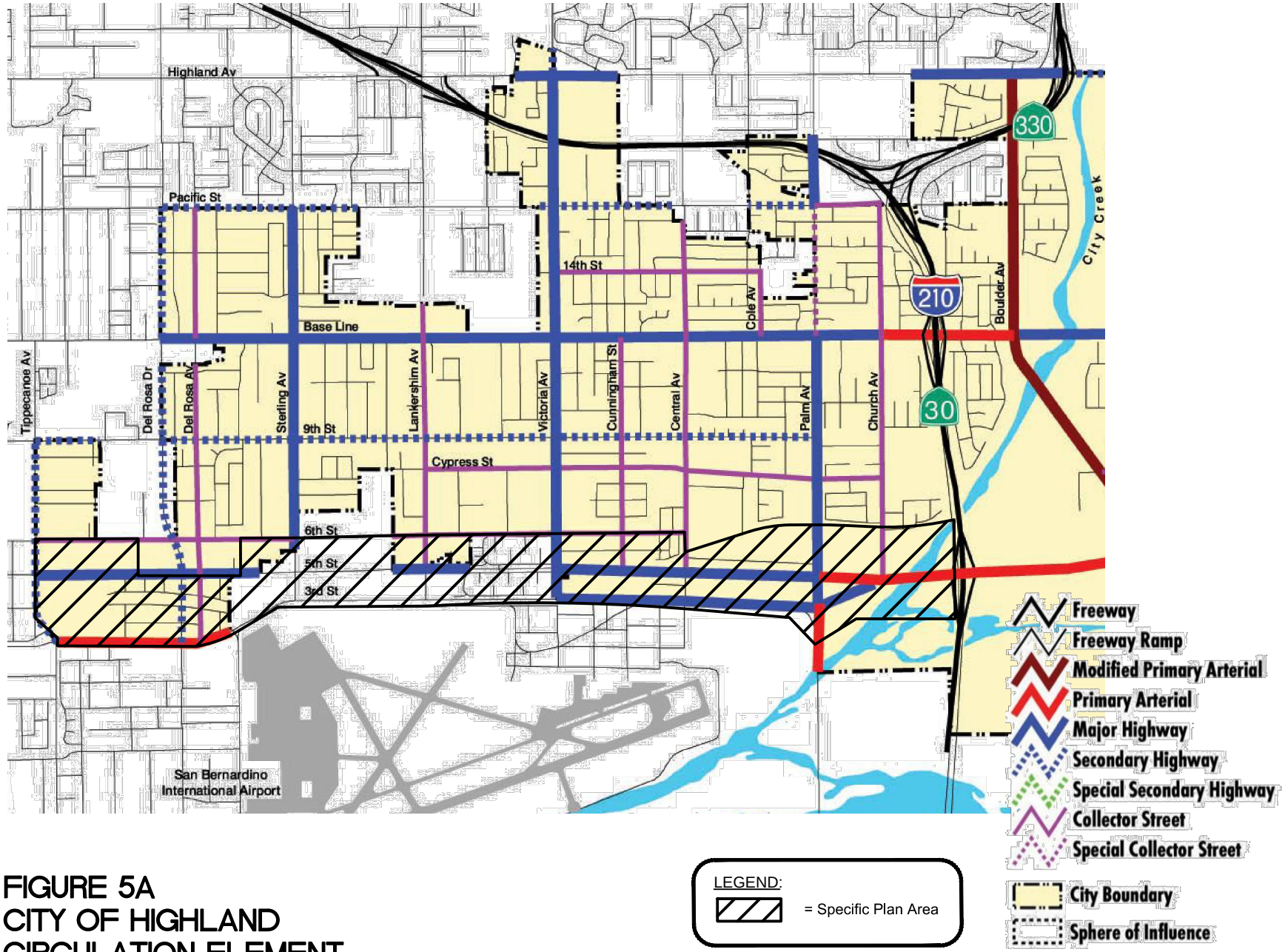


FIGURE 5A
CITY OF HIGHLAND
CIRCULATION ELEMENT

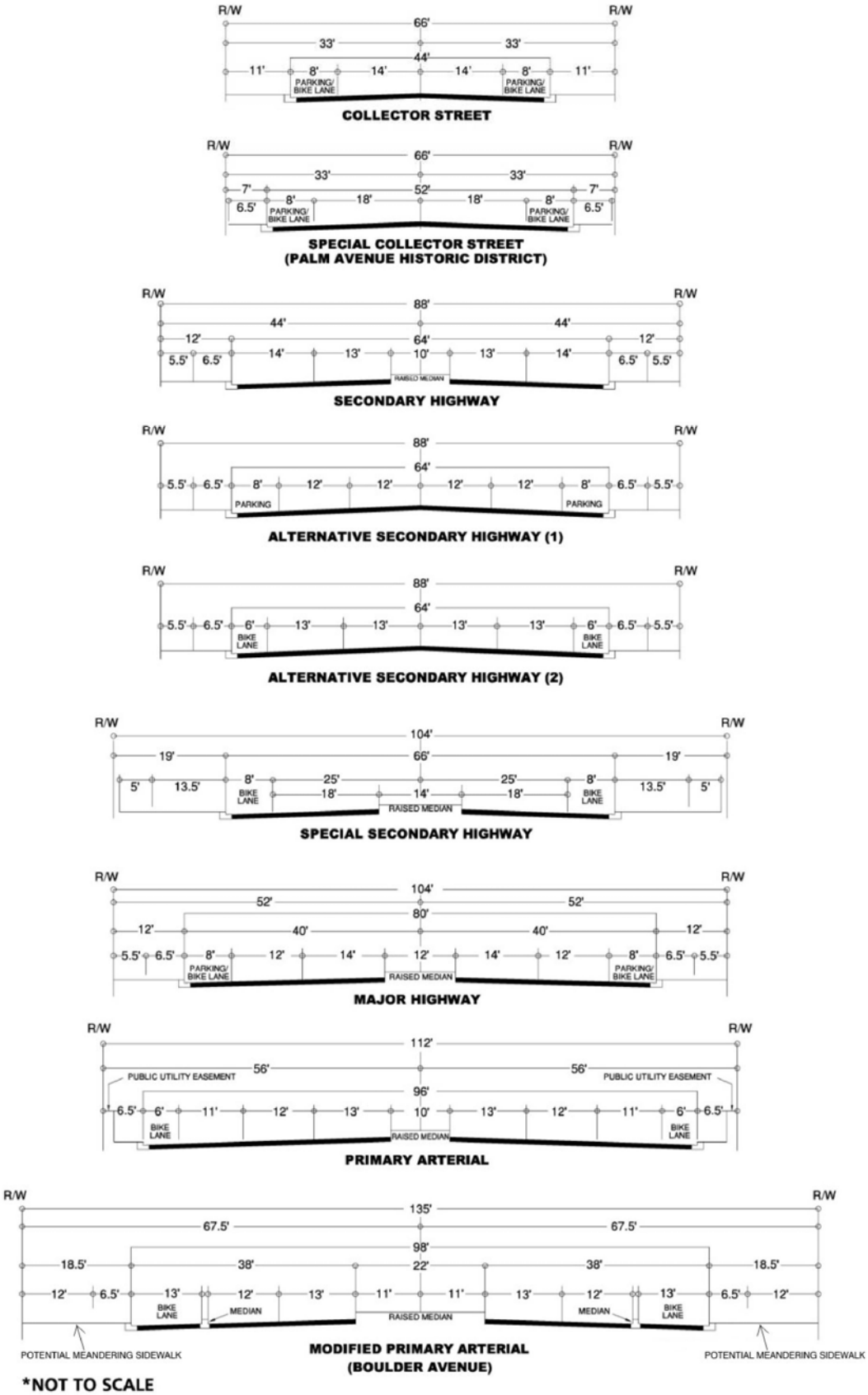


FIGURE 5B
CITY OF HIGHLAND
STANDARD CROSS SECTIONS

Sterling Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Sterling Avenue starts at 3rd Street, and extends northward through and beyond the Specific Plan boundary. The speed limit is 40 MPH. Sterling Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

Victoria Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Victoria Avenue extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 40 to 45 MPH and on-street parking is prohibited on both sides. Victoria Avenue is designated on the City of San Bernardino's Circulation Plan as a Secondary Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

6th Street is an east-west undivided roadway that provides one travel lane in each direction. 6th Avenue will form the northern boundary of the Specific Plan area from Tippecanoe Avenue to Central Avenue. The posted speed limit is 40 MPH, with a 25-MPH school zone from Tippecanoe Avenue to Del Rosa Drive. 6th Street is designated as a Collector Street on the City of San Bernardino's Circulation Plan and on the City of Highland's Circulation Element.

5th Street is an east-west roadway that provides one to two lanes in each direction in the project vicinity, with a center two-way left-turn lane in some sections. 5th Street provides a direct connection to both the I-215 Freeway to the West and the SR-210 Freeway to the East. 5th Street will traverse the entire length of the Specific Plan area, and will have development on both sides of the street. The speed limit ranges from 40 to 45 MPH, with a 25-MPH school zone to the east of Waterman Avenue. 5th Street is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

3rd Street is an east-west roadway that provides two lanes in each direction, with a center two-way left-turn lane. The speed limit ranges from 45 to 50 MPH. 3rd Street is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Primary Arterial. 3rd Street will form the southern boundary of the Specific Plan area from Tippecanoe Avenue to its eastern terminus.

3rd Street currently dead-ends southwest of the intersection of 5th Street at Church Avenue, in the City of Highland. The City has approved an improvement project that will connect 3rd Street to 5th Street to the east and west of Church Avenue. The future connection to the east of Church Avenue will allow eastbound traffic on 3rd Street to merge onto eastbound 5th Street. The connection to the west of Church Avenue will allow limited access from 5th Street to westbound 3rd Street. The timing for completion of this improvement is uncertain.

Existing Transit Service

Transit service to the project area is provided by OmniTrans, which serves the Cities of San Bernardino, Highland and other surrounding cities. Currently only Route 15 travels on any of the streets within the Specific Plan area.

OmniTrans Route 15 operates between the City of Redlands and the City of Fontana, traveling through the Specific Plan area along Tippecanoe Avenue, Del Rosa Avenue, Central Avenue, and Palm Avenue. Key stops along Route 15 include The San Bernardino County Court Building, Redlands Mall, San Bernardino Stadium, San Bernardino Valley College, Fontana Metrolink, and the San Bernardino Transit Center. At the San Bernardino Transit Center, passengers can transfer to other OmniTrans routes, as well as to Riverside Transit (RTA), Mountain Transit, Pass Transit and Victor Valley Transit Authority (VVTA) routes, or to Metrolink.

Route 15 operates on weekdays from 6:40 AM to 10:40 PM with approximately 30-minute headways (the time between bus arrivals), and on Saturdays and Sundays from approximately 6:40 AM to 7:25 PM with approximately 1-hour headways.

The OmniTrans bus stops located closest to the Specific Plan area are as follows:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street
- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street
- Central Avenue at Palm Avenue

Existing Traffic Volumes

Intersection and roadway traffic volumes at the study locations were obtained from traffic studies for other projects in the vicinity, where available; and were collected at the study locations where counts were not available. Copies of the traffic count data worksheets are provided in *Appendix B*.

The traffic counts included vehicle classifications for passenger cars, 2-axle trucks, 3-axle trucks, and 4+-axle trucks. The vehicle classification data was used to develop Passenger Car Equivalent (PCE) volumes by applying a PCE factor of 2.0 PCE for 2-axle trucks, 2.5 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks. For locations without vehicle classification data, the percentage of trucks was determined from classification counts at surrounding locations.

Existing lane configurations and traffic control at the study intersections are shown on Figure 6. Existing morning and evening peak hour intersection volumes are presented on Figure 7. Daily roadway volumes are presented on Figure 8. The existing volumes on Figures 7 and 8 reflect the PCE factors described above.

Existing Operating Conditions

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours using the analysis procedures and assumptions described previously in this report. The results are shown on Table 1. Review of this table indicates that all study intersections currently operate at an acceptable Level of Service in both peak hours, with the exception of the following intersections:

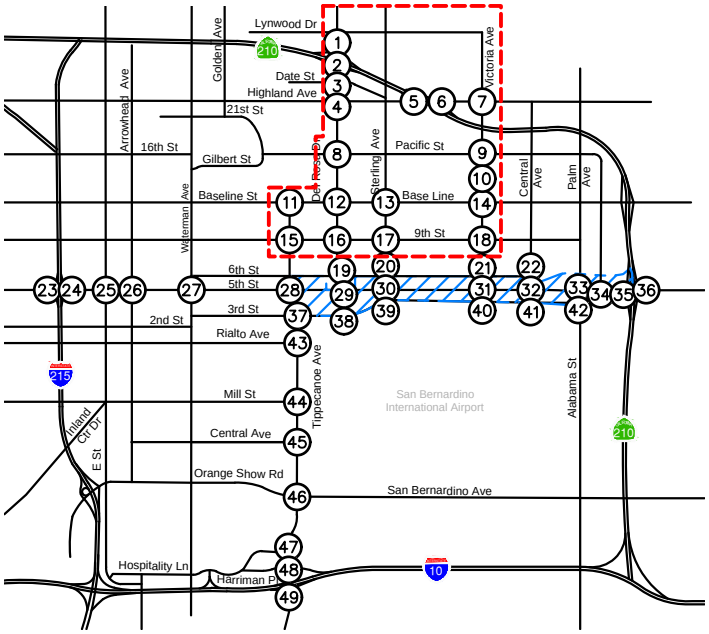
- #20 – Sterling Avenue at 6th Street (unsignalized): AM – LOS F; PM – LOS E
- #41 – Central Avenue at 3rd Street (unsignalized): PM – LOS E

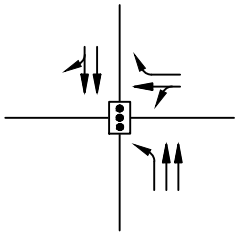
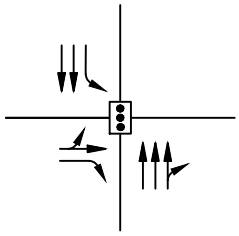
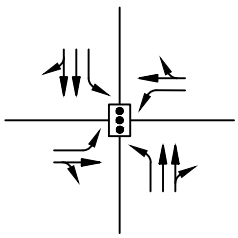
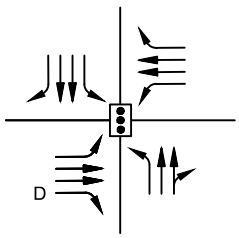
Copies of the intersection analysis worksheets are provided in *Appendix C*.

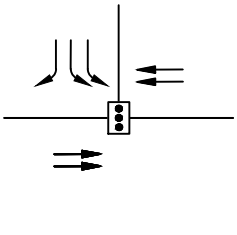
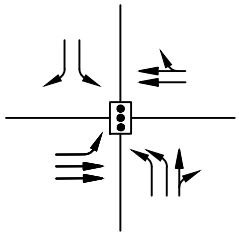
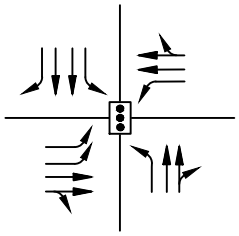
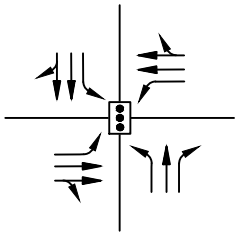
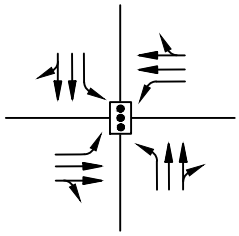
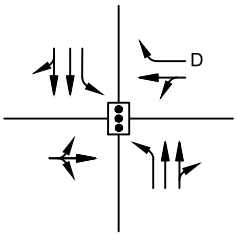
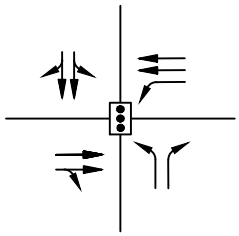
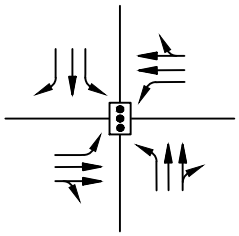
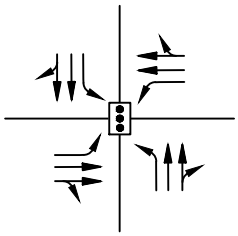
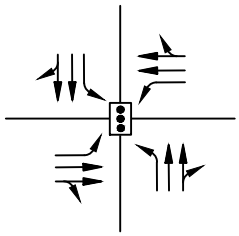
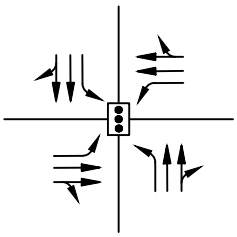
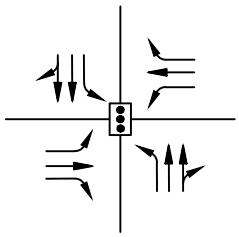
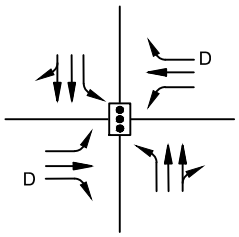
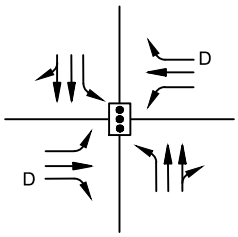
These two intersections are unsignalized. As described in the methodology section, the Level of Service for unsignalized intersections is based on the average vehicle delay for the intersection approach or movement that has the worst (highest) delay. In the case of these intersections vehicles on the side street stop-controlled movements (6th Street at intersection #20, and Central Avenue at intersection #41) experience delay as they wait for a gap in the through traffic on the main arterial. Under current conditions, neither intersection would warrant a signal based on the peak hour volumes.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results are shown on Table 2. Review of this table indicates that all study roadway segments are currently operating at an acceptable Level of Service.



1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
	
3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
	

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 On-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
				
10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
				
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St	
				

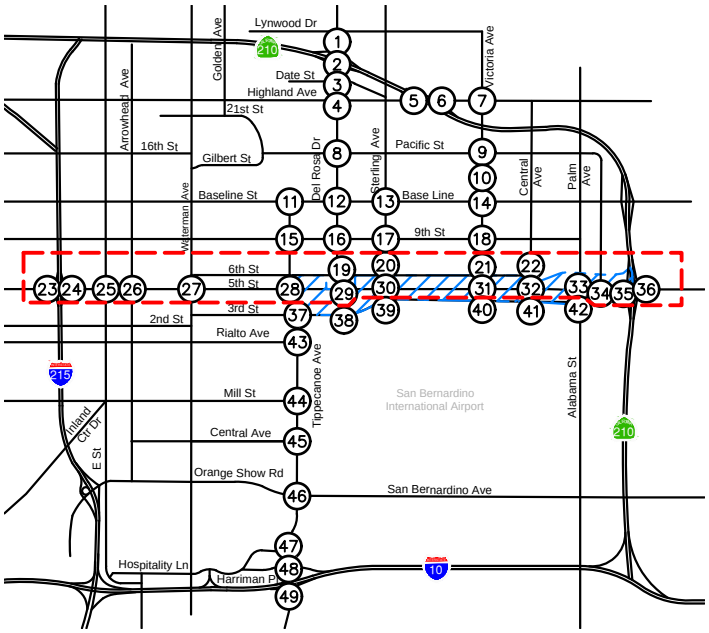


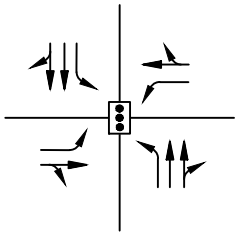
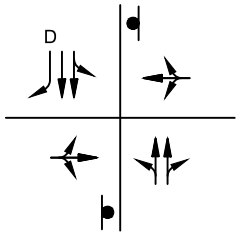
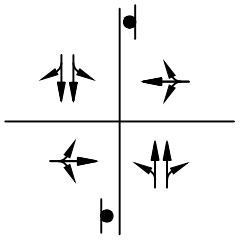
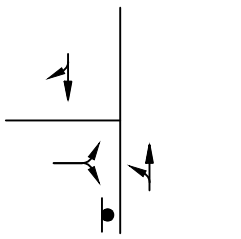
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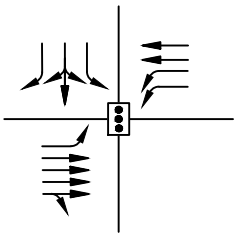
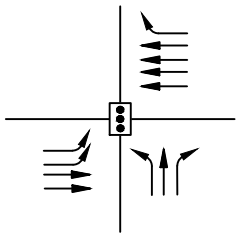
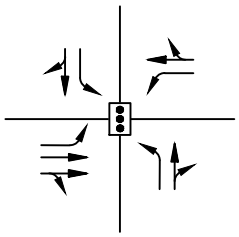
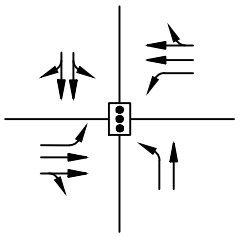
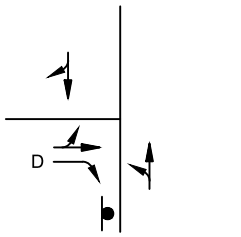
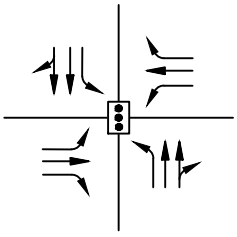
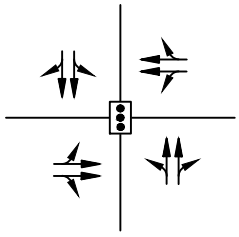
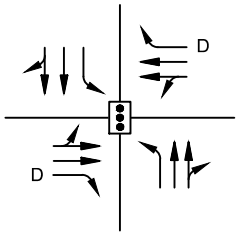
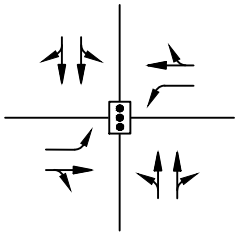
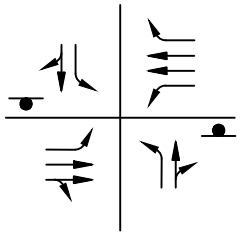
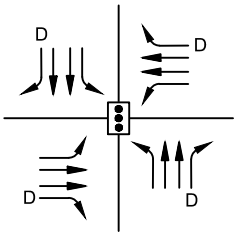
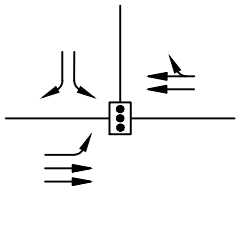
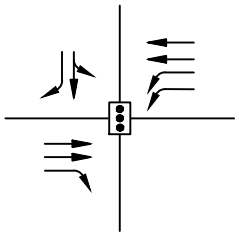
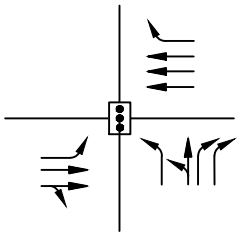
LEGEND:

- X = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- D = Defacto Right Turn
- F = Free Right Turn
- OV = Right-Turn Overlap

FIGURE 6A
EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL



19. Del Rosa Dr at 6th St	20. Sterling Ave at 6th St
	
21. Victoria Ave at 6th St	**22. Central Ave at 6th St**
	

23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St	27. Waterman Ave at 5th St
				
28. Tippecanoe Ave at 5th St	**29. Del Rosa Dr at 5th St**	**30. Sterling Ave at 5th St**	**31. Victoria Ave at 5th St**	**32. Central Ave at 5th St**
				
33. Palm Ave at 5th St	**34. Church Ave at 5th St**	**35. SR-210 SB Ramps at 5th St**	**36. SR-210 NB Ramps at 5th St**	
				

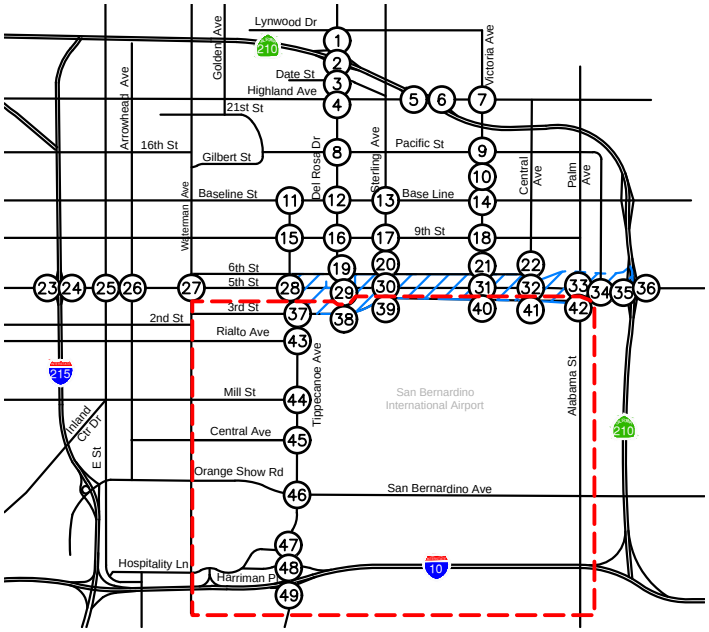


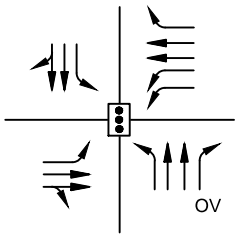
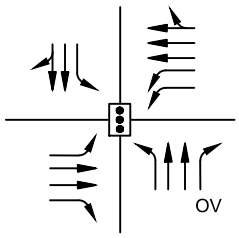
NOT TO SCALE

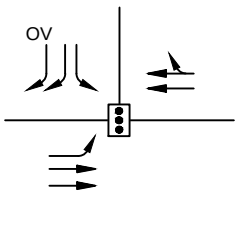
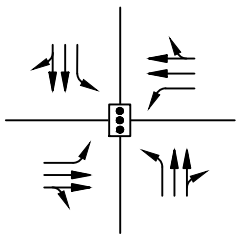
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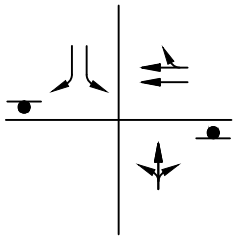
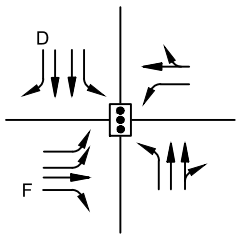
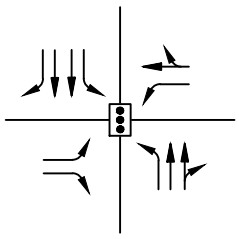
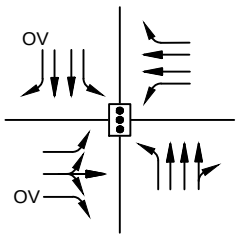
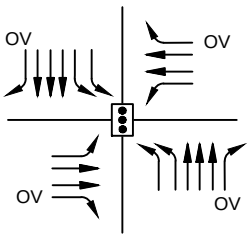
- X = Study Intersection
- = Turn or Through Lane
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- OV = Right-Turn Overlap

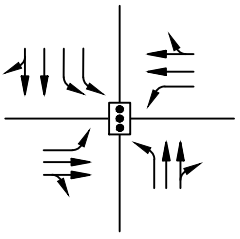
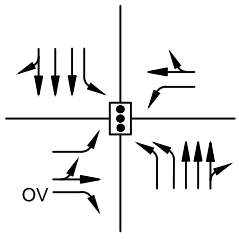
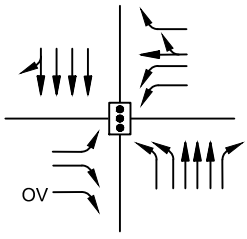
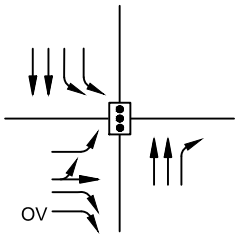
FIGURE 6B
EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL



37. Tippecanoe Ave at 3rd St	38. Del Rosa Dr at 3rd St
	

39. Sterling Ave at 3rd St	40. Victoria Ave at 3rd St
	

41. Central Ave at 3rd St	42. Palm Ave at 3rd St	43. Tippecanoe Ave at Rialto Ave	44. Tippecanoe Ave at Mill St	45. Tippecanoe Ave at Central Ave
				

46. Tippecanoe Ave at Orange Show Rd	47. Tippecanoe Ave at Hospitality Ln	48. Tippecanoe Ave at I-10 WB Ramps	49. Tippecanoe Ave at I-10 EB Ramps
			

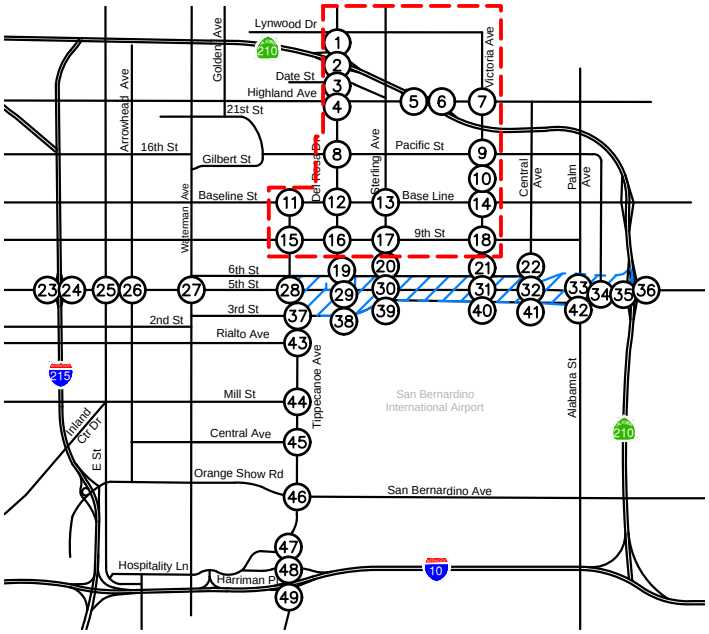


NOT TO SCALE

LEGEND:

- X = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- D = Defacto Right Turn
- F = Free Right Turn
- OV = Right-Turn Overlap

FIGURE 6C
EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL



1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
664/373 ↙ 443/353 ↙ ↖ 121/226 ← 125/128	402/361 ↙ 170/121 ↙
587/627 ↑ 543/713 ↑	360/387 → 1/1 → 695/715 ↘ ↑ 817/949 ↑ 84/120

3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
69/113 ↙ 846/727 ↙ 179/240 ↙ ↖ 153/206 ← 28/71 ← 15/46	123/113 ↙ 568/406 ↙ 122/165 ↙ ↖ 135/160 ← 273/422 ← 47/72
112/126 → 31/57 → 39/51 ↘ ↑ 30/58 ↑ 628/736 ↑ 21/48	51/174 → 267/628 → 119/160 ↘ ↑ 104/174 ↑ 412/510 ↑ 36/65

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 On-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
160/155 ↙ 911/1025 ↙ ← 329/577	305/274 ↙ 338/205 ↙ 59/66 ↙ ↖ 139/176 ← 868/1517 ← 154/151	284/591 ↙ 215/146 ↙ 68/183 ↙ ↖ 88/127 ← 348/567 ← 45/62	200/146 ↙ 342/319 ↙ 38/65 ↙ ↖ 42/35 ← 280/191 ← 69/29	103/66 ↙ 282/279 ↙ 58/54 ↙ ↖ 89/60 ← 331/247 ← 50/42
293/702 →	79/127 ↗ 996/1102 → 238/344 ↘ ↑ 279/217 ↑ 166/93 ↑ 76/42	448/672 ↗ 372/507 → 119/164 ↘ ↑ 241/237 ↑ 243/191 ↑ 42/57	154/147 ↗ 236/339 → 27/25 ↘ ↑ 44/20 ↑ 214/402 ↑ 28/69	113/71 ↗ 252/358 → 206/190 ↘ ↑ 165/145 ↑ 321/379 ↑ 30/55

10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
2/12 ↙ 523/471 ↙ 27/31 ↙ ↖ 52/52 ← 3/4 ← 19/27	← 446/499 ← 191/165	125/90 ↙ 279/204 ↙ 31/81 ↙ ↖ 35/50 ← 378/461 ← 92/26	66/83 ↙ 398/309 ↙ 163/202 ↙ ↖ 195/216 ← 338/354 ← 44/60	122/122 ↙ 329/276 ↙ 85/99 ↙ ↖ 74/98 ← 245/327 ← 33/38
2/13 → 0/10 → 0/3 ↘ ↑ 0/27 ↑ 442/17 ↑ 11/54	306/651 → 198/167 ↘ ↑ 167/283 ↑ 161/249	49/127 ↗ 232/693 → 134/37 ↘ ↑ 50/44 ↑ 208/314 ↑ 77/64	60/127 ↗ 225/551 → 40/49 ↘ ↑ 28/69 ↑ 252/447 ↑ 35/76	105/115 ↗ 211/494 → 30/59 ↘ ↑ 48/62 ↑ 265/339 ↑ 20/74

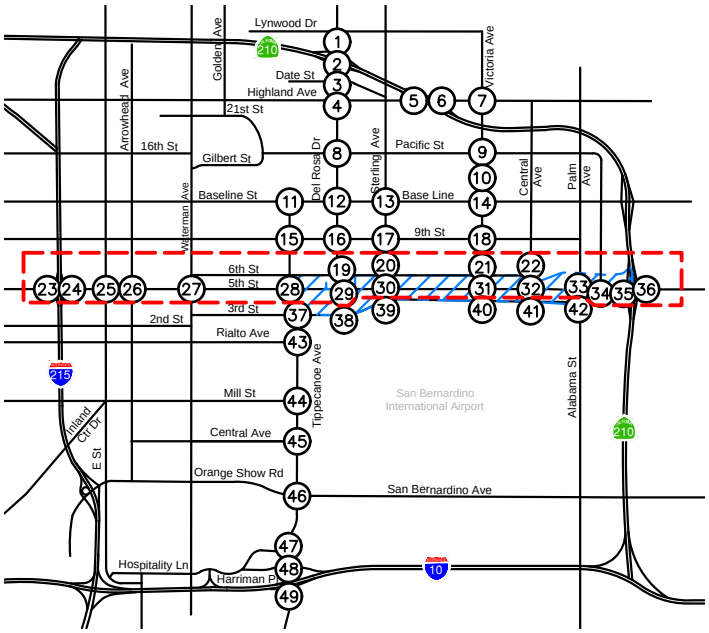
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St
23/35 ↙ 349/265 ↙ 24/12 ↙ ↖ 21/22 ← 295/246 ← 72/48	70/43 ↙ 199/261 ↙ 130/52 ↙ ↖ 44/46 ← 233/287 ← 31/40	83/75 ↙ 362/234 ↙ 55/71 ↙ ↖ 85/73 ← 256/176 ← 52/50	65/60 ↙ 249/216 ↙ 44/59 ↙ ↖ 55/56 ← 99/120 ← 32/19
27/61 ↗ 351/370 → 81/75 ↘ ↑ 111/116 ↑ 251/511 ↑ 76/57	48/38 ↗ 421/219 → 123/65 ↘ ↑ 78/80 ↑ 119/390 ↑ 137/75	80/97 ↗ 172/270 → 22/34 ↘ ↑ 22/33 ↑ 171/360 ↑ 36/106	54/83 ↗ 91/178 → 40/45 ↘ ↑ 45/46 ↑ 161/303 ↑ 16/27

Note: Existing volumes reflect PCE adjustments.
See PCE Worksheets in Appendix C.

NOT TO SCALE

LEGEND:
(X) = Study Intersection
XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 7A
EXISTING PEAK HOUR TRAFFIC VOLUMES



19. Del Rosa Dr at 6th St	20. Sterling Ave at 6th St
95/30 ↙ 274/230 ↓ 43/14 ↘ 43/19 ← 144/86 ↖ 86/39 155/55 → 144/124 → 53/14 ↘ 71/10 ↑ 199/313 ↑ 37/122	43/23 ↙ 469/237 ↓ 24/26 ↘ 14/18 ← 116/76 ↖ 9/10 37/55 → 102/104 → 12/11 ↘ 12/15 ↑ 138/458 ↑ 9/38
21. Victoria Ave at 6th St	**22. Central Ave at 6th St**
23/24 ↙ 299/203 ↓ 13/16 ↘ 18/10 ← 32/29 ↖ 9/3 23/26 → 33/44 → 41/25 ↘ 31/46 ↑ 120/341 ↑ 1/5	33/30 ↙ 107/75 44/50 → 27/27 ↘ 9/22 ↑ 80/173 ↑

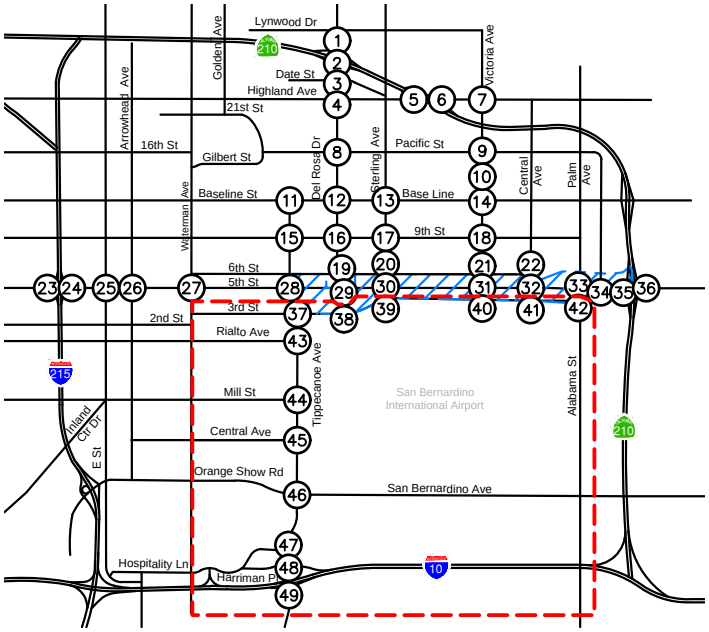
23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St	27. Waterman Ave at 5th St
193/186 ↙ 5/6 ↓ 532/198 ← 504/805 ↖ 315/498 442/589 → 350/393 ↘	148/644 ← 509/925 150/225 → 840/561 → 290/380 ↑ 0/3 ↑ 542/418 ↑	17/60 ↙ 132/163 ↓ 10/21 ↘ 7/20 ← 421/838 ↖ 7/33 75/26 → 937/543 → 37/42 ↘ 27/94 ↑ 102/281 ↑ 20/27 ↑	24/51 ↙ 174/142 ↓ 26/27 ↘ 12/20 ← 394/588 ↖ 39/39 43/46 → 628/490 → 131/30 ↘ 38/95 ↑ 98/305 ↑ 32/64 ↑	110/132 ↙ 519/574 ↓ 14/52 ↘ 16/33 ← 297/212 ↖ 76/62 70/137 → 169/395 → 153/132 ↘ 117/143 ↑ 382/678 ↑ 48/97 ↑
28. Tippecanoe Ave at 5th St	**29. Del Rosa Dr at 5th St**	**30. Sterling Ave at 5th St**	**31. Victoria Ave at 5th St**	**32. Central Ave at 5th St**
41/24 ↙ 360/297 ↓ 17/35 ↘ 19/28 ← 193/122 ↖ 20/26 17/59 → 55/414 → 32/48 ↘ 36/57 ↑ 176/468 ↑ 11/34 ↑	49/32 ↙ 316/215 ↓ 32/48 ↘ 47/36 ← 284/119 ↖ 27/16 64/71 → 69/398 → 16/18 ↘ 8/21 ↑ 192/343 ↑ 7/24 ↑	55/42 ↙ 330/182 ↓ 9/35 ↘ 10/30 ← 269/124 ↖ 24/11 22/83 → 73/366 → 11/29 ↘ 8/6 ↑ 97/310 ↑ 2/14 ↑	30/14 ↙ 230/137 ↓ 76/75 ↘ 78/109 ← 266/138 ↖ 257/30 9/48 → 60/362 → 3/11 ↘ 1/2 ↑ 74/248 ↑ 13/116 ↑	33/14 ↙ 56/31 ↓ 42/50 ↘ 44/73 ← 683/299 ↖ 33/6 15/21 → 191/616 → 14/5 ↘ 5/2 ↑ 4/110 ↑
33. Palm Ave at 5th St	**34. Church Ave at 5th St**	**35. SR-210 SB Ramps at 5th St**	**36. SR-210 NB Ramps at 5th St**	
73/30 ↙ 584/246 ↓ 125/174 ↘ 92/132 ← 568/250 ↖ 358/190 11/70 → 203/700 → 63/60 ↘ 33/88 ↑ 150/569 ↑ 258/534 ↑	84/30 ↙ 154/79 ↘ 70/77 ← 983/511 25/58 → 564/1317 →	121/118 ↙ 7/6 ↓ 122/310 ← 951/482 ↖ 745/279 326/933 → 396/489 ↘	392/267 ← 1336/575 82/182 → 371/1041 → 363/207 ↑ 319/435 ↑	

Note: Existing volumes reflect PCE adjustments.
See PCE Worksheets in Appendix C.

NOT TO SCALE

LEGEND:
(X) = Study Intersection
xx/yy = AM/PM Peak Hour Turning Movement Volumes

FIGURE 7B
EXISTING PEAK HOUR TRAFFIC VOLUMES



37. Tippecanoe Ave at 3rd St	38. Del Rosa Dr at 3rd St
32/25 ↙ 500/299 ↓ 37/42 ↘ 25/50 ← 549/198 ← 302/215	86/69 ↙ 228/131 ↓ 26/44 ↘ 12/26 ← 815/351 ← 230/61
30/42 ↗ 170/616 → 44/59 ↘ 58/60 ↑ 265/499 ↑ 176/488	73/116 ↗ 210/975 → 28/6 ↘ 13/12 ↑ 89/207 ↑ 97/337
39. Sterling Ave at 3rd St	**40. Victoria Ave at 3rd St**
333/118 ↙ 39/59 ↘ 23/40 ← 795/262	452/105 ↙ 30/20 ↓ 55/48 ↘ 13/38 ← 328/167 ← 23/32
98/268 ↗ 223/1128 →	82/318 ↗ 156/830 → 24/7 ↘ 12/18 ↑ 10/32 ↑ 22/41

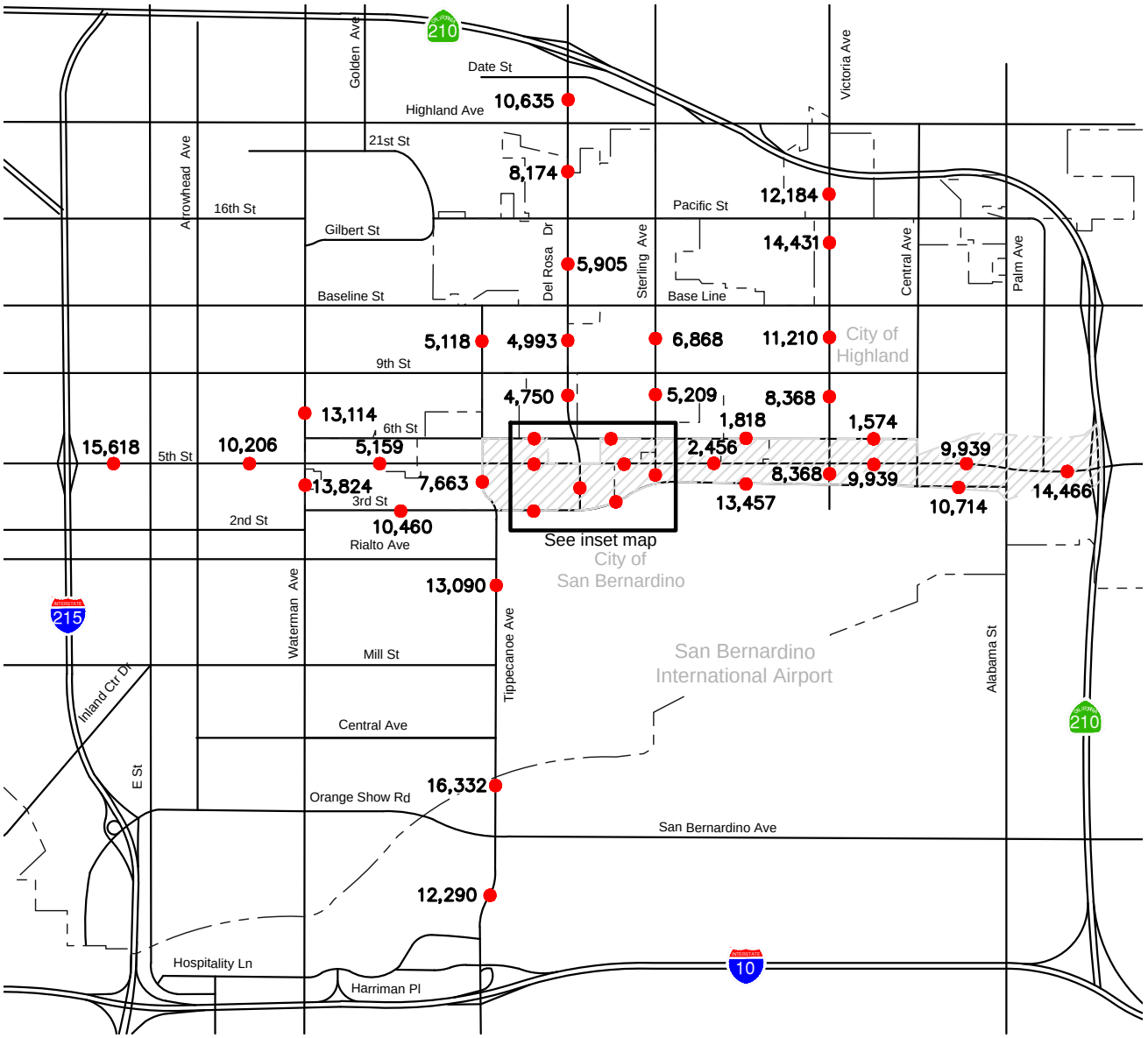
41. Central Ave at 3rd St	42. Palm Ave at 3rd St	43. Tippecanoe Ave at Rialto Ave	44. Tippecanoe Ave at Mill St	45. Tippecanoe Ave at Central Ave
70/24 ↙ 22/21 ↘ 3/20 ← 306/212	149/84 ↙ 800/391 ↓ 30/12 ↘ 45/23 ← 5/3 ← 6/9	81/59 ↙ 692/647	4/121 ↙ 602/776 ↓ 167/2 ↘ 165/3 ← 38/27 ← 120/25	100/143 ↙ 626/752 ↓ 238/237 ↘ 195/258 ← 95/174 ← 26/59
20/177 → 216/728 → 0/1 ↑ 0/3 ↑	106/419 → 3/32 → 172/364 ↘ 170/192 ↑ 364/769 ↑ 6/6	85/111 → 94/53 ↘ 66/98 ↑ 451/975 ↑	30/244 → 14/8 → 5/224 ↘ 6/109 ↑ 722/1005 ↑ 142/0	82/122 → 204/192 → 46/55 ↘ 45/61 ↑ 562/869 ↑ 127/69
46. Tippecanoe Ave at Orange Show Rd	**47. Tippecanoe Ave at Hospitality Ln**	**48. Tippecanoe Ave at I-10 WB Ramps**	**49. Tippecanoe Ave at I-10 EB Ramps**	
64/47 ↙ 590/627 ↓ 109/224 ↘ 116/183 ← 256/516 ← 88/174	43/114 ↙ 570/816 ↓ 51/45 ↘ 39/23 ← 53/65 ← 79/82	60/180 ↙ 714/1174 ↘ 369/267 ← 137/215 ← 528/180	830/664 ↙ 161/674	
122/183 ↗ 157/664 → 128/145 ↘ 75/129 ↑ 512/664 ↑ 48/105 ↑	56/213 ↗ 19/88 → 62/306 ↘ 382/425 ↑ 808/516 ↑ 40/78 ↑	38/157 ↗ 179/670 ↘ 125/300 ↑ 817/599 ↑	691/425 ↗ 4/2 → 611/302 ↘ 641/952 ↑ 298/343 ↑	

Note: Existing volumes reflect PCE adjustments.
See PCE Worksheets in Appendix C.

NOT TO SCALE

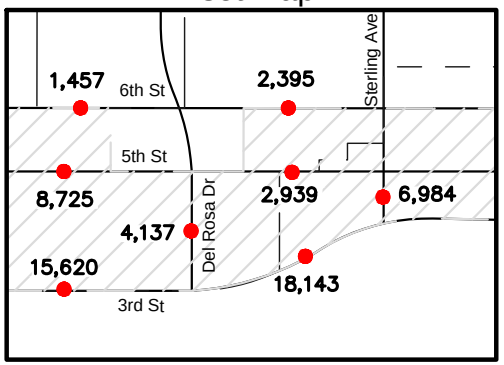
LEGEND:
(X) = Study Intersection
xx/yy = AM/PM Peak Hour Turning Movement Volumes

FIGURE 7C
EXISTING PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

Inset Map



LEGEND:

= Specific Plan Boundary

X,XXX = Average Daily Traffic Volume

FIGURE 8
EXISTING AVERAGE DAILY ROADWAY VOLUMES

TABLE 1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

Int. #	Intersection	Traffic Control	Jurisdiction	Peak Hour	Existing Conditions		
					Delay (sec/veh)	V/C	LOS
1	Del Rosa Drive at SR-210 WB Ramps	S	C	AM	54.3	0.947	D
				PM	32.7	0.814	C
2	Del Rosa Drive at SR-210 EB Ramps	S	C	AM	31.6	0.742	D
				PM	32.4	0.778	D
3	Del Rosa Drive at Date Street	S	SB	AM	14.6	0.387	B
				PM	19.6	0.484	B
4	Del Rosa Drive at Highland Avenue	S	SB	AM	29.5	0.355	C
				PM	35.9	0.517	D
5	Highland Avenue at SR-210 EB Off-Ramp	S	C	AM	23.0	0.449	C
				PM	20.9	0.531	C
6	Highland Avenue at SR-210 WB Off-Ramp	S	C	AM	45.9	0.826	D
				PM	40.5	0.767	D
7	Victoria Avenue at Highland Avenue	S	H	AM	28.3	0.567	C
				PM	29.1	0.824	C
8	Del Rosa Drive at Pacific Street	S	H	AM	30.1	0.420	C
				PM	27.4	0.440	C
9	Victoria Avenue at Pacific Street	S	H	AM	36.4	0.569	D
				PM	32.0	0.399	C
10	Victoria Avenue at 14th Street	S	H	AM	7.1	0.263	A
				PM	13.4	0.223	B
11	Tippecanoe Avenue at Baseline Street	S	SB	AM	22.8	0.437	C
				PM	24.4	0.520	C
12	Del Rosa Drive at Baseline Street	S	SB	AM	31.7	0.403	C
				PM	35.2	0.415	D
13	Sterling Avenue at Base Line	S	H	AM	30.7	0.419	C
				PM	33.9	0.562	C
14	Victoria Avenue at Base Line	S	H	AM	29.8	0.366	C
				PM	33.3	0.386	C
15	Tippecanoe Avenue at 9th Street	S	H	AM	31.2	0.438	C
				PM	28.7	0.339	C
16	Del Rosa Drive at 9th Street	S	SB	AM	33.0	0.518	C
				PM	28.6	0.392	C
17	Sterling Avenue at 9th Street	S	H	AM	29.1	0.390	C
				PM	29.3	0.412	C
18	Victoria Avenue at 9th Street	S	H	AM	27.1	0.254	C
				PM	28.3	0.262	C
19	Del Rosa Drive at 6th Street	S	SB	AM	33.9	0.540	C
				PM	21.0	0.267	C
20	Sterling Avenue at 6th Street	U	SB	AM	53.8	0.269	F
				PM	39.3	0.226	E
21	Victoria Avenue at 6th Street	U	H	AM	15.6	0.062	C
				PM	18.7	0.144	C
22	Central Avenue at 6th Street	U	SB	AM	10.7	0.085	B
				PM	11.0	0.083	B
23	I-215 SB Ramps at 5th Street	S	C	AM	24.6	0.513	C
				PM	20.2	0.521	C
24	I-215 NB Ramps at 5th Street	S	C	AM	28.9	0.425	C
				PM	24.1	0.669	C
25	E Street at 5th Street	S	SB	AM	10.3	0.365	B
				PM	16.5	0.442	B
26	Arrowhead Avenue at 5th Street	S	SB	AM	34.0	0.338	C
				PM	33.8	0.361	C

TABLE 1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

Int. #	Intersection	Traffic Control	Jurisdiction	Peak Hour	Existing Conditions		
					Delay (sec/veh)	V/C	LOS
27	Waterman Avenue at 5th Street	S	SB	AM	25.3	0.361	C
				PM	25.5	0.425	C
28	Tippecanoe Avenue at 5th Street	S	H	AM	22.5	0.281	C
				PM	27.6	0.470	C
29	Del Rosa Drive at 5th Street	S	H	AM	19.0	0.330	B
				PM	21.6	0.311	C
30	Sterling Avenue at 5th Street	S	SB	AM	19.0	0.146	B
				PM	24.9	0.305	C
31	Victoria Avenue at 5th Street	S	H	AM	31.2	0.336	C
				PM	27.0	0.389	C
32	Central Avenue at 5th Street	S	H	AM	10.8	0.305	B
				PM	13.2	0.353	B
33	Palm Avenue at 5th Street	S	H	AM	54.0	0.591	D
				PM	46.3	0.876	D
34	Church Avenue at 5th Street	S	H	AM	9.9	0.448	A
				PM	6.1	0.479	A
35	SR-210 EB Ramps at 5th Street	S	C	AM	25.5	0.661	C
				PM	26.7	0.657	C
36	SR-210 WB Ramps at 5th Street/Greenspot Road	S	C	AM	24.4	0.488	C
				PM	28.9	0.487	C
37	Tippecanoe Avenue at 3rd Street	S	SB	AM	29.2	0.384	C
				PM	29.7	0.636	C
38	Del Rosa Drive at 3rd Street	S	SB	AM	33.3	0.417	C
				PM	28.9	0.612	C
39	Sterling Avenue at 3rd Street	S	SB	AM	19.6	0.476	B
				PM	13.7	0.421	B
40	Victoria Avenue at 3rd Street	S	H	AM	40.6	0.499	D
				PM	22.5	0.372	C
41	Central Avenue at 3rd Street	U	H	AM	15.3	0.000	C
				PM	40.5	0.010	E
42	Palm Avenue at 3rd Street	S	H	AM	18.7	0.485	B
				PM	23.6	0.426	C
43	Tippecanoe Avenue at Rialto Avenue	S	SB	AM	11.8	0.360	B
				PM	10.2	0.371	B
44	Tippecanoe Avenue at Mill Street	S	SB	AM	19.9	0.442	B
				PM	17.9	0.471	B
45	Tippecanoe Avenue at Central Avenue	S	SB	AM	24.5	0.406	C
				PM	26.6	0.528	C
46	Tippecanoe Ave at Orange Show/San Bernardino Ave	S	SB	AM	26.2	0.460	C
				PM	33.8	0.634	C
47	Tippecanoe Avenue at Hospitality Lane	S	SB	AM	20.7	0.376	C
				PM	28.7	0.594	C
48	Tippecanoe Ave at I-10 WB Ramps / Harriman Place	S	C	AM	24.8	0.467	C
				PM	28.3	0.611	C
49	Tippecanoe Avenue at I-10 EB Ramps	S	C	AM	22.6	0.524	C
				PM	26.9	0.650	C

Notes:
- Level of Service is based on the delay value.
- Bold and shaded values indicate intersections operating at LOS E or F or significant impact to intersection per City or Caltrans standards.
- At a signalized intersection, delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.
- At a two-way stop-controlled intersection, delay refers to the average vehicle delay on the movement with the highest delay.
- Delay values are based on the methodology outlined in the 2010 Highway Capacity Manual.
- S = Signalized; U = Unsignalized
- C = Caltrans; SB = San Bernardino; H = Highland

TABLE 2
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING CONDITIONS

Roadway	Segment	Jurisdiction	Existing Configuration	LOS E Capacity	Existing ADT [1]	V/C	LOS
Waterman Avenue	Baseline Street to 5th Street	SB	4 Lanes Divided	40,000	13,114	0.328	A
	5th Street to 3rd Street	SB	6 Lanes Divided	60,000	13,824	0.230	A
Tippecanoe Avenue	Baseline Street to 6th Street	SB / H	4 Lanes Undivided	30,000	5,118	0.171	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	7,663	0.255	A
	3rd Street to Mill Street	SB	6 Lanes Divided	60,000	13,090	0.218	A
	Mill Street to Orange Show Road / San Bernardino Avenue	SB	4 Lanes Divided	40,000	16,332	0.408	A
	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	SB	6 Lanes Divided	60,000	12,290	0.205	A
Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	SB	4 Lanes Divided	40,000	10,635	0.266	A
	Highland Avenue to Pacific Street	SB	2 Lanes Undivided	12,000	8,174	0.681	B
	Pacific Street to Baseline Street	SB / H	4 Lanes Undivided	30,000	5,905	0.197	A
	Baseline Street to 9th Street	SB / H	4 Lanes Divided	40,000	4,993	0.125	A
	9th Street to 6th Street	SB	4 Lanes Divided	40,000	4,750	0.119	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	4,137	0.138	A
Sterling Avenue	Base Line to 9th Street	H	4 Lanes Divided	40,000	6,868	0.172	A
	9th Street to 6th Street	H	4 Lanes Divided	40,000	5,209	0.130	A
	6th Street to 3rd Street	SB / H	4 Lanes Divided	40,000	6,984	0.175	A
Victoria Avenue	Highland Avenue to Pacific Street	H	4 Lanes Divided	40,000	12,184	0.305	A
	Pacific Street to Base Line	H	4 Lanes Divided	40,000	14,431	0.361	A
	Base Line to 9th Street	H	4 Lanes Undivided	30,000	11,210	0.374	A
	9th Street to 6th Street	H	4 Lanes Undivided	30,000	8,368	0.279	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	8,368	0.279	A
6th Street	Tippecanoe Avenue to Del Rosa Drive	SB / H	2 Lanes Undivided	10,000	1,457	0.146	A
	Del Rosa Drive to Sterling Avenue	H	2 Lanes Undivided	10,000	2,395	0.240	A
	Sterling Avenue to Victoria Avenue	SB / H	2 Lanes Undivided	10,000	1,818	0.182	A
	Victoria Avenue to Central Avenue	H	2 Lanes Undivided	10,000	1,574	0.157	A
5th Street	I-215 NB Ramps to E Street	SB	4 Lanes Divided	40,000	15,618	0.390	A
	E Street to Waterman Avenue	SB	4 Lanes Divided	40,000	10,206	0.255	A
	Waterman Avenue to Tippecanoe Avenue	SB	2 Lanes Undivided	15,000	5,159	0.344	A
	Tippecanoe Avenue to Del Rosa Drive	H	2 Lanes Undivided	15,000	8,725	0.582	A
	Del Rosa Drive to Sterling Avenue	SB / H	4 Lanes Undivided	40,000	2,939	0.073	A
	Sterling Avenue to Victoria Avenue	SB / H	2 Lanes Undivided	15,000	2,456	0.164	A
	Victoria Avenue to Central Avenue	H	2 Lanes Undivided	15,000	9,939	0.663	B
	Central Avenue to Palm Avenue	H	2 Lanes Undivided	15,000	9,939	0.663	B
	Palm Avenue to SR-210 SB Ramps	H	4 Lanes Divided	40,000	14,466	0.362	A
3rd Street	Waterman Avenue to Tippecanoe Avenue	SB	4 Lanes Divided	40,000	10,460	0.262	A
	Tippecanoe Avenue to Del Rosa Drive	SB / H	4 Lanes Divided	40,000	15,620	0.391	A
	Del Rosa Drive to Sterling Avenue	SB / H	4 Lanes Divided	40,000	18,143	0.454	A
	Sterling Avenue to Victoria Avenue	SB	4 Lanes Divided	40,000	13,457	0.336	A
	Victoria Avenue to Palm Avenue	SB / H	4 Lanes Undivided	40,000	10,714	0.268	A

Notes: [1] Existing daily traffic volumes include passenger car equivalent (PCE) factors for trucks: 2-axle - 2.0; 3-axle - 2.5; 4+-axle - 3.0
LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity
Jurisdiction: SB = San Bernardino, H = Highland, SB / H = Portions of the roadway segment are in both cities

PROJECT TRAFFIC

Project Trip Generation

The AGSP would replace the land uses currently existing within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial / retail uses.

Trip generation estimates for the Airport Gateway Specific Plan project are based on daily and peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition).

Based on the uses and intensities (expressed as floor area ratio, or FAR) allowed in the Specific Plan, the AGSP mix of uses assumed for this analysis and the associated ITE Land Use Category for each land use are as follows:

Land Use	ITE Land Use Code	Quantity	Unit
Industrial Warehouse	150	6,310,472	Sq. Ft.
High-Cube Warehouse	154	1,352,244	Sq. Ft.
Research and Development	760	1,302,161	Sq. Ft.
Retail / Commercial	820	65,233	Sq. Ft.
Hotel	310	150	Room

Passenger vehicle and truck mix assumptions were applied to the warehouse and high cube components of the project, based on the City of Fontana Truck Trip Generation Study. Passenger car equivalent (PCE) factors were then applied to the truck types, based on number of axles (2.0 PCE for 2-axle trucks, 2.5 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks) to determine the total PCE trips to be generated by the project.

Trip credits were taken to account for the existing uses in the Specific Plan area that would be removed. For a conservative analysis, the trip generation estimates for the existing uses were reduced by 50%. A summary of existing land uses and the associates trip generation is provided on Table A in *Appendix A*.

The trip generation rates, truck mix, PCE factors, and the resulting trip generation estimates for the project are summarized on Table 3. The AGSP project is estimated to generate 27,002 net PCE trips on a daily basis, with 1,674 trips in the morning peak hour, and 1,819 PCE trips in the evening peak hour.

TABLE 3
SUMMARY OF PROJECT TRIP GENERATION
AIRPORT GATEWAY SPECIFIC PLAN

TRIP GENERATION RATES [1]

ITE Land Use	ITE Code	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Warehousing	150	KSF	1.740	0.131	0.039	0.170	0.051	0.139	0.190
High-Cube Transload and Short-Term Storage	154	KSF	1.40	0.06	0.02	0.08	0.03	0.07	0.10
Research and Development Center	760	KSF	11.26	0.32	0.11	0.42	0.07	0.42	0.49
Shopping Center	820	KSF	37.75	0.58	0.36	0.94	1.83	1.98	3.81
Hotel	310	Room	8.36	0.28	0.19	0.47	0.31	0.29	0.60

PROJECT TRIP GENERATION

Project Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Warehousing	6,310.472	KSF	10,980	827	246	1,073	322	877	1,199
High-Cube Transload and Short-Term Storage	1,352.244	KSF	1,893	84	24	108	38	97	135
Research and Development Center	1,302.161	KSF	14,662	410	137	547	96	543	639
Shopping Center	65.233	KSF	2,463	38	23	61	119	129	248
Pass-by Trips	25%		-616	-10	-6	-16	-30	-32	-62
Total Shopping Center Trips			1,847	28	17	45	89	97	186
Hotel	150	Room	1,254	42	29	71	46	44	90
Total Project Trips			29,382	1,349	424	1,773	545	1,614	2,159

PASSENGER CAR EQUIVALENT (PCE) ADJUSTMENTS FOR WAREHOUSE USES

Vehicle Type	Vehicle Mix [2]	Daily Vehicles	PCE Factor [3]	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Warehousing										
Passenger Vehicles	79.57%	8,737	1.0	8,737	658	196	854	256	698	954
2-Axle Trucks	3.46%	380	2.0	760	57	17	74	22	61	83
3-Axle Trucks	4.64%	509	2.5	1,273	96	29	125	37	102	139
4+ Axle Trucks	12.33%	1,354	3.0	4,062	306	91	397	119	324	443
Total Truck PCE Trips				6,095	459	137	596	178	487	665
Total Warehousing PCE Trips				14,832	1,117	333	1,450	434	1,185	1,619
High-Cube Transload and Short-Term Storage										
Passenger Vehicles	51.0%	965	1.0	965	43	12	55	19	49	68
2-Axle Trucks	0.0%	0	2.0	0	0	0	0	0	0	0
3-Axle Trucks	0.0%	0	2.5	0	0	0	0	0	0	0
4+ Axle Trucks	49.0%	928	3.0	2,784	123	36	159	57	144	201
Total Truck PCE Trips				2,784	123	36	159	57	144	201
Total High-Cube Transload and Short-Term Storage PCE Trips				3,749	166	48	214	76	193	269

TOTAL SPECIFIC PLAN TRIPS

Total Specific Plan Passenger Car Trips			27,465	1,181	391	1,572	506	1,431	1,937
Total Specific Plan Truck (PCE) Trips			8,879	582	173	755	235	631	866
Total Specific Plan Trips			36,344	1,763	564	2,327	741	2,062	2,803

TRIP GENERATION FOR EXISTING USES IN SPECIFIC PLAN AREA

Existing Uses Trip Generation [4]			9,342	358	295	653	450	534	984
Specific Plan Net New Trips			27,002	1,405	269	1,674	291	1,528	1,819

[1] Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition

[2] Source: Truck Trip Generation Study - City of Fontana, August 2003.

[3] Source: City of San Bernardino Traffic Impact Study Guidelines, June 2015.

[4] Source: PlaceWorks - See Table A, Appendix A

PCE = Passenger Car Equivalent KSF = Thousand Square Feet

Trip Distribution and Assignment

Trip distribution assumptions for the project were developed taking into account the proposed Specific Plan uses, the roadway system serving the project area, and the routes to and from the freeway system for the warehouse trucks. Separate distribution patterns were assumed for passenger car trips and truck trips. Project trucks are assumed to use 3rd Street or 5th Street to enter the warehouse developments. No truck entrances will be located on 6th Street. Passenger car entrances will be located on the north-south streets, where feasible, to minimize project traffic on 6th Street. Trip distribution assumptions are shown on Figure 9.

Trip distribution percentages were applied to the project trip generation to determine the project trips through each study intersection and on the study roadway segments. The resulting project-related peak hour volumes are shown on Figure 10. Daily roadway volumes are shown on Figure 11.

EXISTING PLUS PROJECT CONDITIONS

The Existing Plus Project analysis scenario is a hypothetical scenario that assumes completion of the project and full absorption of the project traffic on the surrounding street network at the current time. The Existing Plus Project scenario is required by the California Environmental Quality Act (CEQA).

Project-related traffic was added to the Existing traffic volumes. The Existing Plus Project traffic volumes at the study intersections are shown on Figure 12. Existing Plus Project daily roadway volumes are shown on Figure 13.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Existing Plus Project condition. The results are shown on Table 4. Copies of the intersection analysis worksheets are provided in *Appendix C*.

Review of this table indicates that, with the addition of Project traffic, the following intersections would operate at an unacceptable Level of Service:

- #1 - Del Rosa Drive at SR-210 WB Ramps: AM – LOS E
- #20 - Sterling Avenue at 6th Street: AM – LOS F; PM – LOS F
- #21 - Victoria Avenue at 6th Street: PM – LOS F
- #33 - Palm Avenue at 5th Street: AM – LOS E; PM – LOS F
- #41 - Central Avenue at 3rd Street: PM – LOS E

Based on the impact criteria presented earlier in the report for the Cities of San Bernardino and Highland and for Caltrans, the Project impact at each of these intersections would be considered to be a significant project impact.

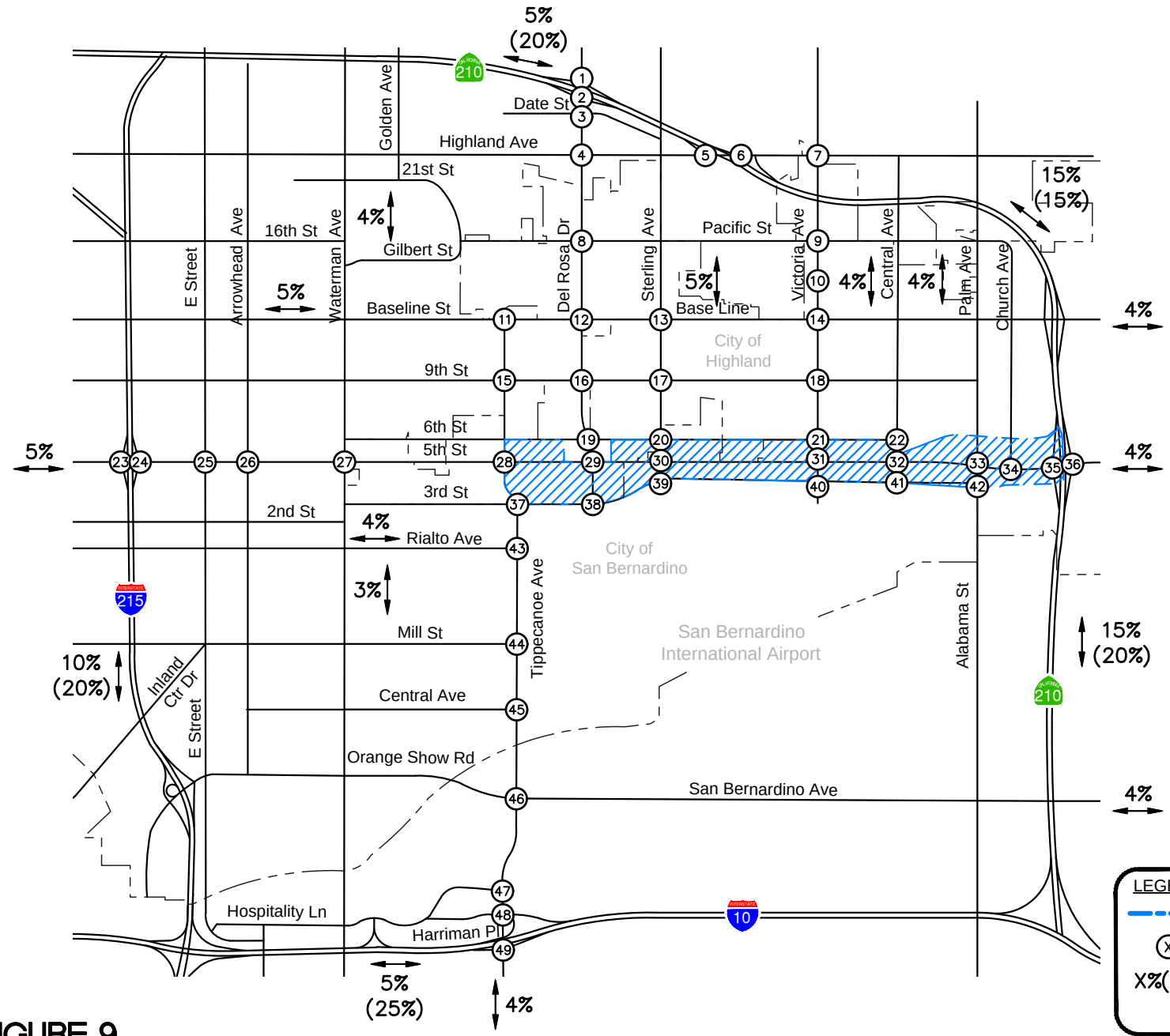
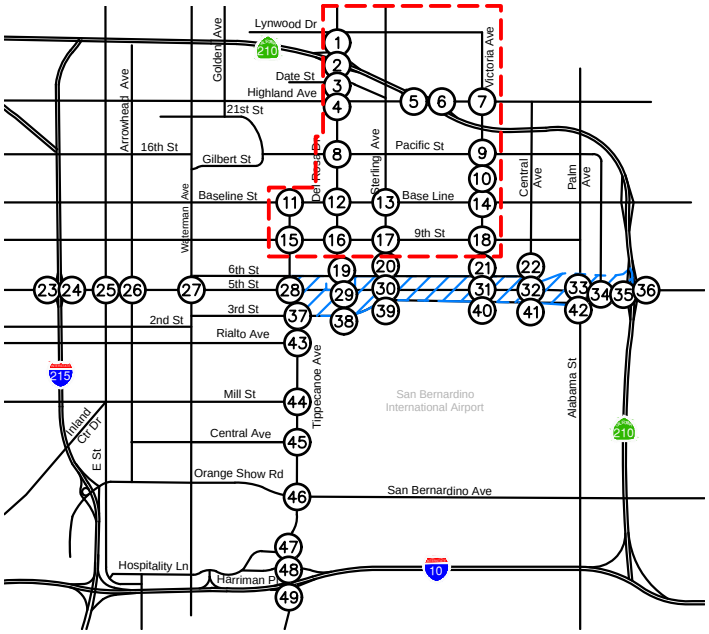


FIGURE 9
PROJECT TRIP DISTRIBUTION



1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
15/68 ↑	76/18 ↘ 15/68 ↑

3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
← 50/12, 26/6 ↖ 4/14; 11/54 ↑	← 50/12; 11/54 ↑

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 On-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
← 43/9, ← 5/20	← 16/79; 26/4 → 17/5 ↘	← 37/8; 26/4 ↘ 16/79 ↑ 5/43 ↑	← 50/12; 11/54 ↑	← 63/12; 17/5 ↘ 21/122 ↑

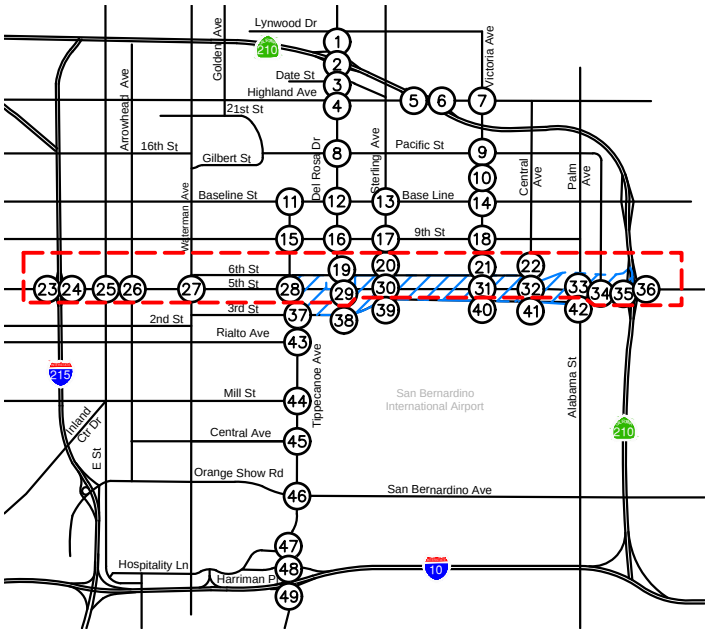
10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
← 80/17; 21/122 ↑	← 14/76; 65/18 → 19/4 ↘	← 50/12; 65/18 ↘ 14/76 ↑ 11/54 ↑	← 73/20; 12/48 ↑	← 80/17; 21/122 ↑

15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St
← 19/4	← 115/30; 25/130 ↑	← 42/11, 31/9 ↖ 4/14; 8/34 ↑	← 80/17; 21/122 ↑

NOT TO SCALE

LEGEND:
(X) = Study Intersection
XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 10A
PROJECT-RELATED PEAK HOUR TRAFFIC VOLUMES



19. Del Rosa Dr at 6th St	20. Sterling Ave at 6th St
3/1, 87/21, 25/8 ← 6/29, 10/13, 0/5	5/2, 31/7, 6/2 ← 2/8, 18/21, 45/78
1/3, 11/11, 4/26 → 20/4, 18/98, 4/1 ↑	1/6, 27/35 → 18/4, 5/20, 21/5 ↑
21. Victoria Ave at 6th St	**22. Central Ave at 6th St**
22/4, 33/6, 25/7 ← 3/11, 51/39, 4/2	54/12, 4/0 ←
2/10, 44/104, 3/1 → 28/6, 16/101, 21/5 ↑	6/26, 56/114 → 26/6, 4/40 ↑

23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St	27. Waterman Ave at 5th St
← 13/54, 34/200	← 47/254	← 47/254	← 47/254	3/17, 0/8 ← 44/237, 4/19 ←
47/14 →	47/14 → 188/35 ↑	235/49 →	235/49 →	235/49 → 25/4 ↑

28. Tippecanoe Ave at 5th St	29. Del Rosa Dr at 5th St	30. Sterling Ave at 5th St	31. Victoria Ave at 5th St	32. Central Ave at 5th St
1/5, 14/3 ← 3/16, 38/204, 13/70 ←	13/3, 24/10, 54/39 ← 30/64, 132/226, 2/9 ←	48/45, 15/37, 13/3 ← 18/10, 149/206, 13/74 ←	13/4, 12/2, 15/3 ← 34/57, 251/217 ←	4/0, 56/114 ← 26/6, 309/223 ←
22/4, 187/39, 51/10 → 10/52, 5/1, 67/14 ↑	3/14, 211/145 → 9/25, 8/2 ↑	13/16, 220/220 → 12/2, 13/3, 84/18 ↑	25/36, 196/285 → 2/1, 6/19 ↑	4/40, 161/279 →

33. Palm Ave at 5th St	34. Church Ave at 5th St	35. SR-210 SB Ramps at 5th St	36. SR-210 NB Ramps at 5th St
10/2, 6/2 ← 0/10, 371/155, 92/23 ←	← 501/105	231/49 ← 270/56 ←	← 37/8
0/10, 148/402, 5/38 → 10/2, 3/1 ↑	99/436 →	71/285, 47/253 →	66/242, 5/43 → 233/48 ↑



NOT TO SCALE

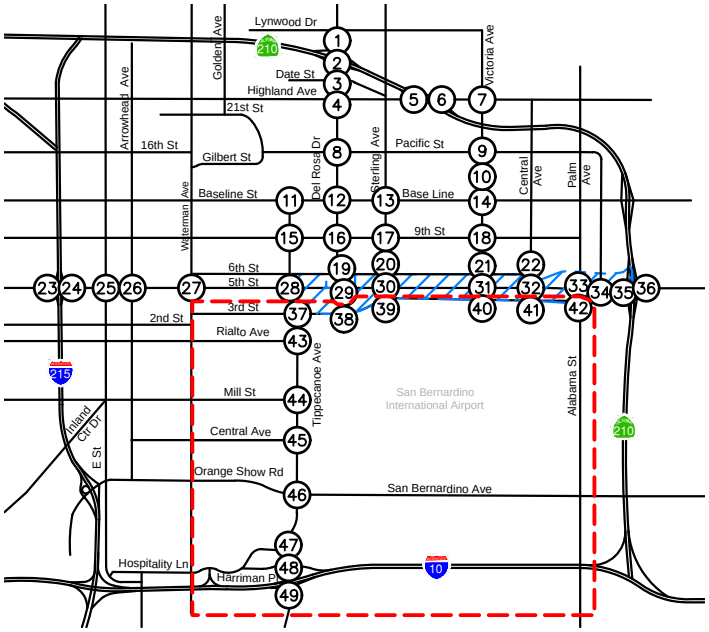
LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 10B
PROJECT-RELATED
PEAK HOUR TRAFFIC VOLUMES

Kimley»Horn



37. Tippecanoe Ave at 3rd St	38. Del Rosa Dr at 3rd St
←14/75, ←51/10, ↖10/52, ←3/47, ←23/138 42/6→, ↑72/15, ↑129/33	←17/17, ←9/2, ↖2/9, ←55/193 15/18↗, 181/66→
39. Sterling Ave at 3rd St	**40. Victoria Ave at 3rd St**
←22/110, ←6/1, ↖14/2, ←46/67 95/21↗, 69/57→	←6/1, ←6/1, ↖6/8, ←81/48 2/12↗, 46/72→

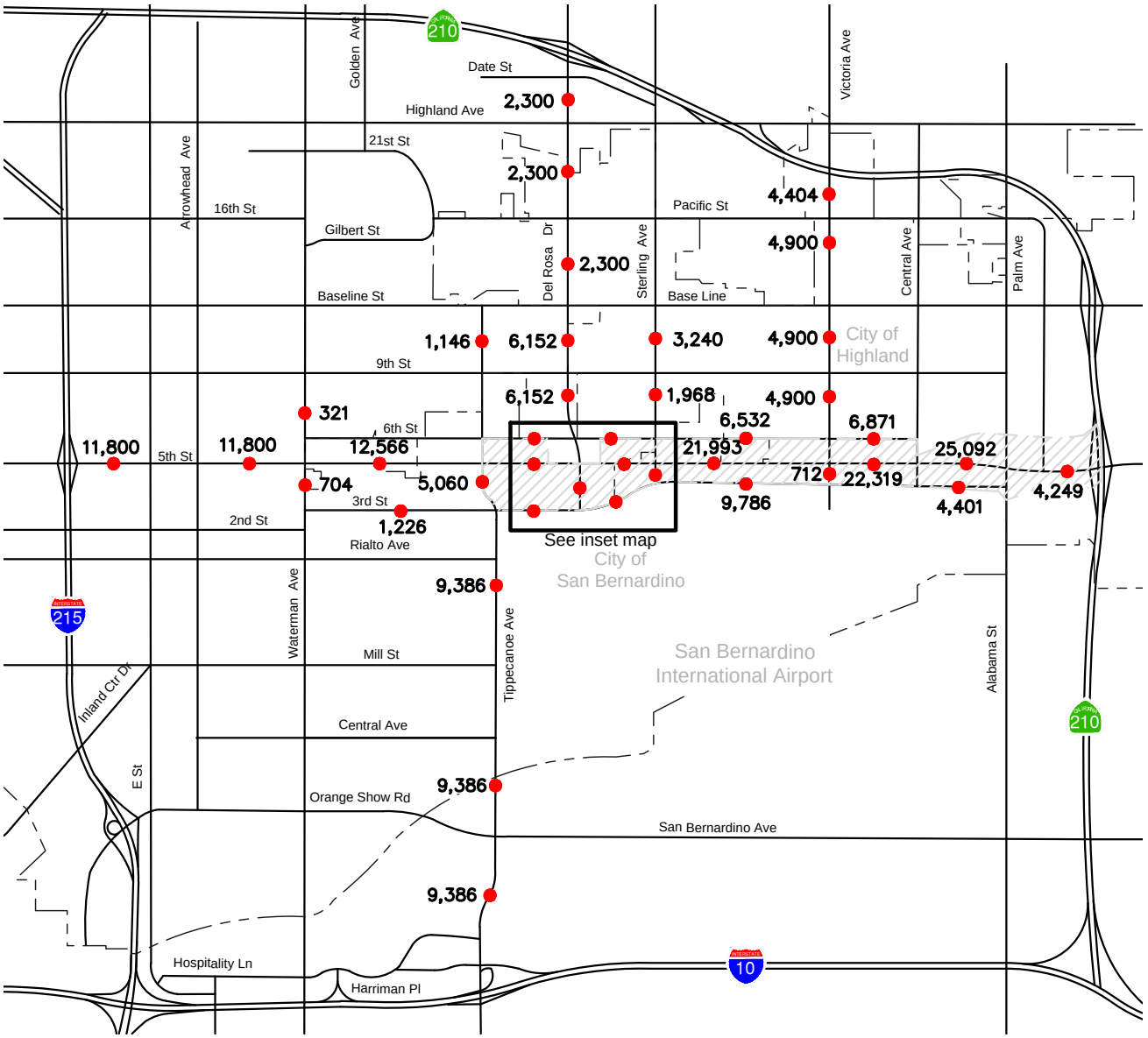
41. Central Ave at 3rd St	42. Palm Ave at 3rd St	43. Tippecanoe Ave at Rialto Ave	44. Tippecanoe Ave at Mill St	45. Tippecanoe Ave at Central Ave
←94/40 35/79→	←83/16, ←5/43, ←9/2, ←1/7 24/93→, ↑24/5, ↑13/3	←37/213 ↑201/48	←37/213 ↑201/48	←37/213 ↑201/48

46. Tippecanoe Ave at Orange Show Rd	47. Tippecanoe Ave at Hospitality Ln	48. Tippecanoe Ave at I-10 WB Ramps	49. Tippecanoe Ave at I-10 EB Ramps
←37/213 ↑201/48	←37/213 ↑201/48	←37/213 ↑201/48	←5/43 164/40↗, ↑37/8

NOT TO SCALE

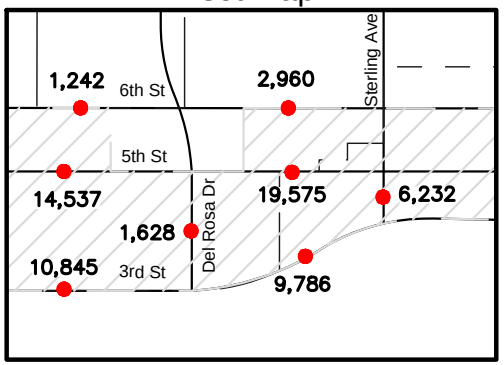
LEGEND:
- (X) = Study Intersection
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 10C
PROJECT-RELATED
PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

Inset Map



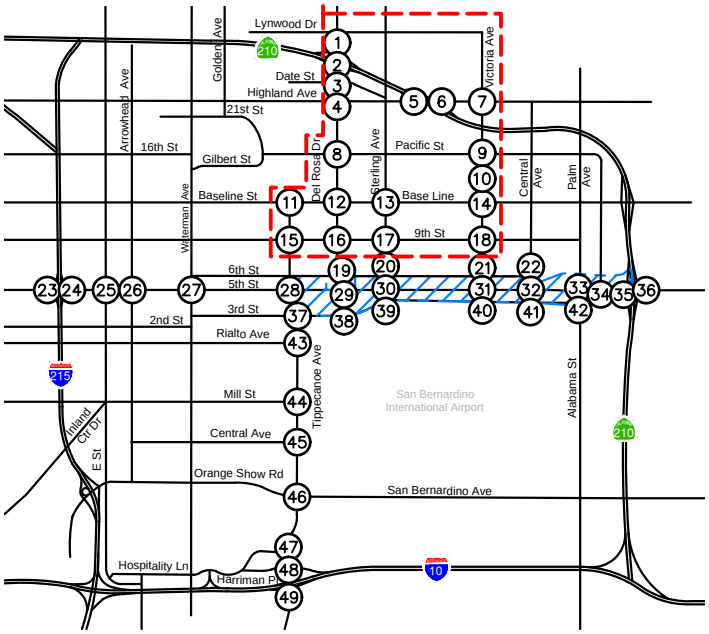
LEGEND:

= Specific Plan Boundary

X,XXX = Average Daily Traffic Volume

FIGURE 11
PROJECT-RELATED ROADWAY TRAFFIC VOLUMES

Kimley»Horn



1. Del Rosa Ave at SR-210 WB Ramps

664/373 ← 443/353 → 121/226, 125/128 ←

602/695 ↑ 543/713 ↑

2. Del Rosa Ave at SR-210 EB Ramps

402/361 ← 170/121 →

360/387 → 1/1 → 771/733 ↘

832/1017 ↑ 84/120 ↑

3. Del Rosa Ave at Date St

69/113 ↖ 896/739 ↑ 205/246 ↗ 157/220, 28/71, 15/46

112/126 → 31/57 → 39/51 ↘

30/58 ↑ 639/790 ↑ 21/48 ↑

4. Del Rosa Ave at Highland Ave

123/113 ↖ 618/418 ↑ 122/165 ↗ 135/160, 273/422, 47/72

51/174 → 267/628 → 119/160 ↘

104/174 ↑ 423/564 ↑ 36/65 ↑

5. Highland Ave at SR-210 EB Off-Ramp

160/155 ↖ 954/1034 ↑ ← 334/597

293/702 →

6. Highland Ave at SR-210 On-Ramp

305/274 ↖ 338/205 ↑ 59/66 ↗ 139/176, 884/1596, 154/151

79/127 → 1022/1106 → 255/349 ↘

279/217 ↑ 166/93 ↑ 76/42 ↑

7. Victoria Ave at Highland Ave

284/591 ↖ 252/154 ↑ 68/183 ↗ 88/127, 348/567, 45/62

448/672 → 372/507 → 145/168 ↘

257/316 ↑ 248/234 ↑ 42/57 ↑

8. Del Rosa Dr at Pacific St

200/146 ↖ 392/331 ↑ 38/65 ↗ 42/35, 280/191, 69/29

154/147 → 236/339 → 27/25 ↘

44/20 ↑ 225/456 ↑ 28/69 ↑

9. Victoria Ave at Pacific St

103/66 ↖ 345/291 ↑ 58/54 ↗ 89/60, 331/247, 50/42

113/71 → 252/358 → 223/195 ↘

165/145 ↑ 342/501 ↑ 30/55 ↑

10. Victoria Ave at 14th St

2/12 ↖ 603/488 ↑ 27/31 ↗ 52/52, 3/4, 19/27

2/13 → 0/10 → 0/3 ↘

0/27 ↑ 463/139 ↑ 11/54 ↑

11. Tippecanoe Ave at Baseline St

← 460/575, 191/165

371/669 → 217/171 ↘

167/283 ↑ 161/249 ↑

12. Del Rosa Dr at Baseline St

125/90 ↖ 329/216 ↑ 31/81 ↗ 35/50, 378/461, 92/26

49/127 → 232/693 → 199/55 ↘

64/120 ↑ 219/368 ↑ 77/64 ↑

13. Sterling Ave at Base Line

66/83 ↖ 471/329 ↑ 163/202 ↗ 195/216, 338/354, 44/60

60/127 → 225/551 → 40/49 ↘

28/69 ↑ 264/495 ↑ 35/76 ↑

14. Victoria Ave at Base Line

122/122 ↖ 409/293 ↑ 85/99 ↗ 74/98, 245/327, 33/38

105/115 → 211/494 → 30/59 ↘

48/62 ↑ 286/461 ↑ 20/74 ↑

15. Tippecanoe Ave at 9th St

23/35 ↖ 368/269 ↑ 24/12 ↗ 21/22, 295/246, 72/48

27/61 → 351/370 → 81/75 ↘

111/116 ↑ 251/511 ↑ 76/57 ↑

16. Del Rosa Ave at 9th St

70/43 ↖ 314/291 ↑ 130/52 ↗ 44/46, 233/287, 31/40

48/38 → 421/219 → 123/65 ↘

78/80 ↑ 144/520 ↑ 137/75 ↑

17. Sterling Ave at 9th St

83/75 ↖ 404/245 ↑ 86/80 ↗ 89/87, 256/176, 52/50

80/97 → 172/270 → 22/34 ↘

22/33 ↑ 179/394 ↑ 36/106 ↑

18. Victoria Ave at 9th St

65/60 ↖ 329/233 ↑ 44/59 ↗ 55/56, 99/120, 32/19

54/83 → 91/178 → 40/45 ↘

45/46 ↑ 182/425 ↑ 16/27 ↑

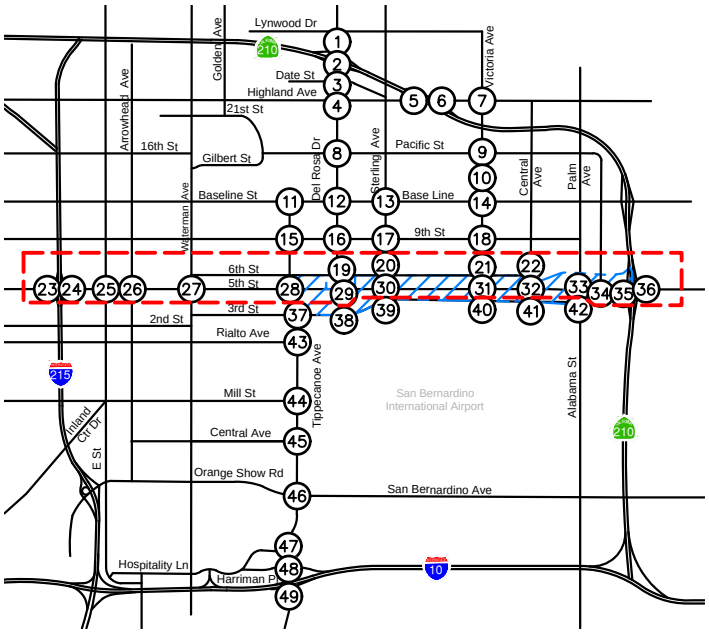
NOT TO SCALE

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 12A
EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES



19. Del Rosa Dr at 6th St	20. Sterling Ave at 6th St
98/31 ↙ 361/251 ↓ 68/22 ↘ 49/48 ← 154/99 ← 86/44	48/25 ↙ 500/244 ↓ 30/28 ↘ 16/26 ← 134/97 ← 54/88
156/58 → 155/135 → 57/40 ↘ 91/14 ↑ 217/411 ↑ 41/123	38/61 → 129/139 → 12/11 ↘ 30/19 ↑ 143/478 ↑ 30/43
21. Victoria Ave at 6th St	**22. Central Ave at 6th St**
45/28 ↙ 332/209 ↓ 38/23 ↘ 21/21 ← 83/68 ← 13/5	87/42 ↙ 111/75
25/36 → 77/148 → 44/26 ↘ 59/52 ↑ 136/442 ↑ 22/10	50/76 → 83/141 ↘ 35/28 ↑ 84/213

23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St	27. Waterman Ave at 5th St
193/186 ↙ 5/6 ↓ 532/198 ↘ 517/859 ← 349/698	148/644 ← 556/1179	17/60 ↙ 132/163 ↓ 10/21 ↘ 7/20 ← 468/1092 ← 7/33	24/51 ↙ 174/142 ↓ 26/27 ↘ 12/20 ← 441/842 ← 39/39	113/149 ↙ 519/582 ↓ 14/52 ↘ 16/33 ← 341/449 ← 80/81
489/603 → 350/393 ↘	150/225 → 887/575 → 290/380 ↑ 0/3 ↑ 730/453	75/26 → 1172/592 → 37/42 ↘ 27/94 ↑ 102/281 ↑ 20/27	43/46 → 863/539 → 131/30 ↘ 38/95 ↑ 98/305 ↑ 32/64	70/137 → 404/444 → 153/132 ↘ 117/143 ↑ 382/678 ↑ 73/101

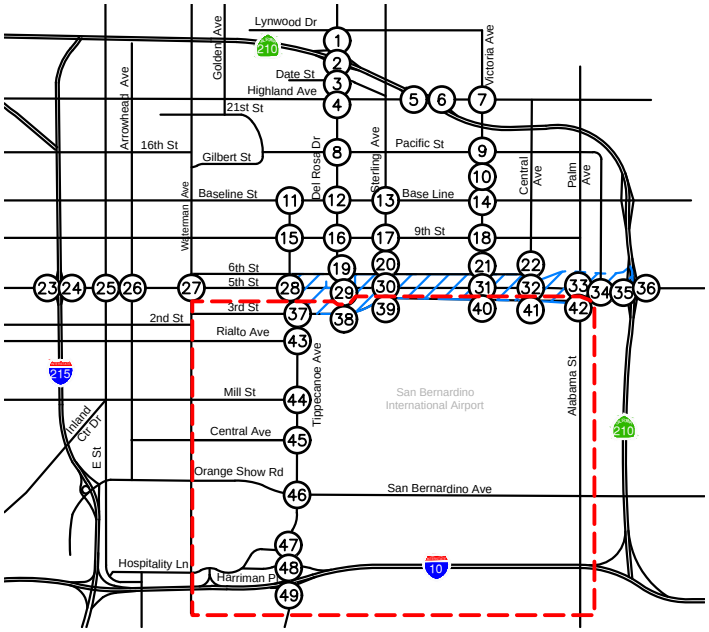
28. Tippecanoe Ave at 5th St	29. Del Rosa Dr at 5th St	30. Sterling Ave at 5th St	31. Victoria Ave at 5th St	32. Central Ave at 5th St
41/24 ↙ 361/302 ↓ 31/38 ↘ 22/44 ← 231/326 ← 33/96	62/35 ↙ 340/225 ↓ 86/87 ↘ 77/100 ← 416/345 ← 29/25	103/87 ↙ 345/219 ↓ 22/38 ↘ 28/40 ← 418/330 ← 37/85	43/18 ↙ 242/139 ↓ 91/78 ↘ 112/166 ← 517/355 ← 257/30	37/14 ↙ 56/31 ↓ 98/164 ↘ 70/79 ← 992/522 ← 33/6
39/63 → 242/453 → 83/58 ↘ 46/109 ↑ 181/469 ↑ 78/48	67/85 → 280/543 → 16/18 ↘ 8/21 ↑ 201/368 ↑ 15/26	35/99 → 293/586 → 11/29 ↘ 20/8 ↑ 110/313 ↑ 86/32	34/84 → 256/647 → 3/11 ↘ 3/3 ↑ 80/267 ↑ 13/116	19/61 → 352/895 → 14/5 ↘ 5/2 ↑ 4/110

33. Palm Ave at 5th St	34. Church Ave at 5th St	35. SR-210 SB Ramps at 5th St	36. SR-210 NB Ramps at 5th St
83/32 ↙ 584/246 ↓ 131/176 ↘ 92/142 ← 939/405 ← 450/213	84/30 ↙ 154/79 ↘ 70/77 ← 1484/616	352/167 ↙ 7/6 ↓ 122/310 ← 1221/538 ← 745/279	392/267 ← 1373/583
11/80 → 351/1102 → 68/98 ↘ 43/90 ↑ 150/569 ↑ 261/535	25/58 → 663/1753 →	397/1218 → 443/742 ↘	148/424 → 376/1084 → 596/255 ↑ 319/435

NOT TO SCALE

LEGEND:
- (X) = Study Intersection
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 12B
EXISTING PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES



37. Tippecanoe Ave at 3rd St	38. Del Rosa Dr at 3rd St
32/25 ↙ 514/374 ↓ 88/52 ↘ 35/102 ← 552/245 ← 325/353 30/42 → 212/622 → 44/59 ↘ 58/60 ↑ 337/514 ↑ 305/521	103/86 ↙ 228/131 ↓ 35/46 ↘ 14/35 ← 870/544 ← 230/61 88/134 → 391/1041 → 28/6 ↘ 13/12 ↑ 89/207 ↑ 97/337
39. Sterling Ave at 3rd St	**40. Victoria Ave at 3rd St**
355/228 ↙ 45/60 ↘ 37/42 ← 841/329 193/289 → 292/1185 →	458/106 ↙ 30/20 ↓ 61/49 ↘ 19/46 ← 409/215 ← 23/32 84/330 → 202/902 → 24/7 ↘ 12/18 ↑ 10/32 ↑ 22/41

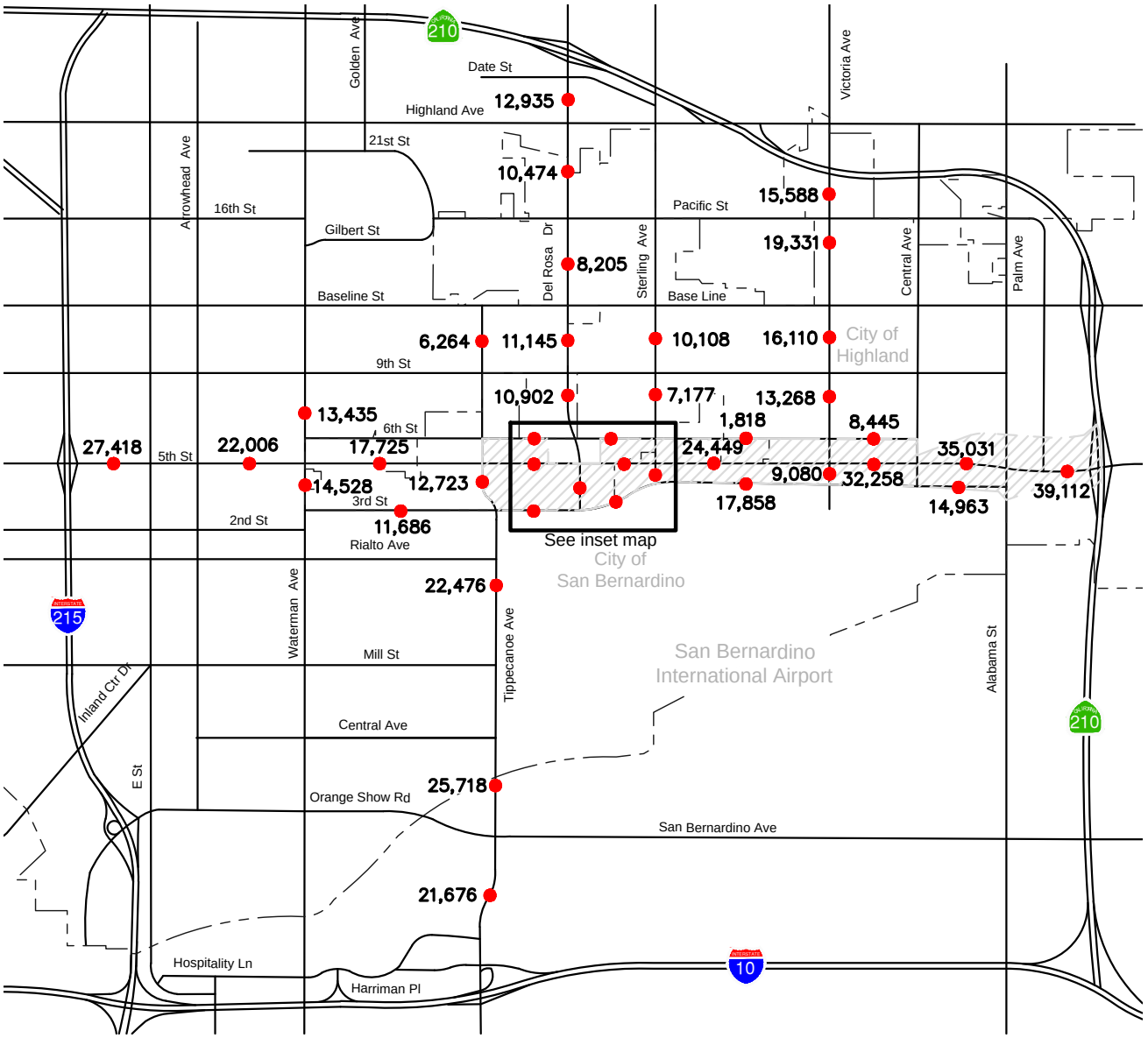
41. Central Ave at 3rd St	42. Palm Ave at 3rd St	43. Tippecanoe Ave at Rialto Ave	44. Tippecanoe Ave at Mill St	45. Tippecanoe Ave at Central Ave
70/24 ↙ 22/21 ↘ 3/20 ← 400/252 20/177 → 251/807 → 0/1 ↑ 0/3 ↑	232/100 ↙ 805/434 ↓ 39/14 ↘ 45/23 ← 6/10 ← 6/9 106/419 → 27/125 → 172/364 ↘ 194/197 ↑ 377/772 ↑ 6/6	81/59 ↙ 729/860 85/111 → 94/53 ↘ 66/98 ↑ 652/1023 ↑	4/121 ↙ 639/989 ↓ 167/2 ↘ 165/3 ← 38/27 ← 120/25 30/244 → 14/8 → 5/224 ↘ 6/109 ↑ 923/1053 ↑ 142/0 ↑	100/143 ↙ 663/965 ↓ 238/237 ↘ 195/258 ← 95/174 ← 26/59 82/122 → 204/192 → 46/55 ↘ 45/61 ↑ 763/917 ↑ 127/69 ↑

46. Tippecanoe Ave at Orange Show Rd	47. Tippecanoe Ave at Hospitality Ln	48. Tippecanoe Ave at I-10 WB Ramps	49. Tippecanoe Ave at I-10 EB Ramps
64/47 ↙ 627/840 ↓ 109/224 ↘ 116/183 ← 256/516 ← 88/174 122/183 → 157/664 → 128/145 ↘ 75/129 ↑ 713/712 ↑ 48/105 ↑	43/114 ↙ 607/1029 ↓ 51/45 ↘ 39/23 ← 53/65 ← 79/82 56/213 → 19/88 → 62/306 ↘ 382/425 ↑ 1009/564 ↑ 40/78 ↑	60/180 ↙ 751/1387 ↘ 369/267 ← 137/215 ← 528/180 38/157 → 179/670 ↘ 125/300 ↑ 1018/647 ↑	835/707 ↙ 161/674 855/465 → 4/2 → 611/302 ↘ 678/960 ↑ 298/343 ↑

NOT TO SCALE

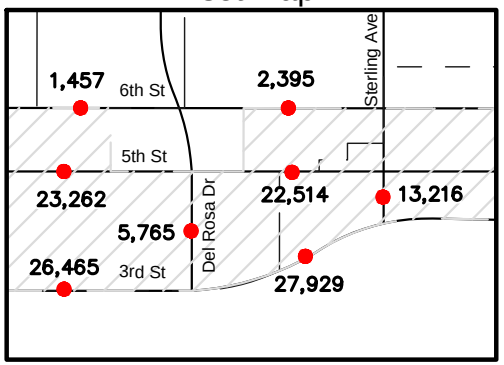
LEGEND:
- (X) = Study Intersection
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 12C
EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

Inset Map



LEGEND:

= Specific Plan Boundary

X,XXX = Average Daily Traffic Volume

FIGURE 13
EXISTING PLUS PROJECT ROADWAY TRAFFIC VOLUMES

TABLE 4
SUMMARY OF INTERSECTION OPERATION
EXISTING PLUS PROJECT CONDITIONS

Int. #	Intersection	Traffic Control	Juris-diction	Peak Hour	Existing Conditions			Existing Plus Project Conditions			Project Impact / Significance		
					Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C	Impact Sig?
1	Del Rosa Drive at SR-210 WB Ramps	S	C	AM	54.3	0.947	D	57.2	0.957	E	2.9	0.010	Yes
				PM	32.7	0.814	C	37.4	0.858	D	4.7	0.044	No
2	Del Rosa Drive at SR-210 EB Ramps	S	C	AM	31.6	0.742	D	34.4	0.795	D	2.8	0.053	No
				PM	32.4	0.778	D	34.0	0.803	D	1.6	0.025	No
3	Del Rosa Drive at Date Street	S	SB	AM	14.6	0.387	B	14.7	0.404	B	0.1	0.017	No
				PM	19.6	0.484	B	20.3	0.513	C	0.7	0.029	No
4	Del Rosa Drive at Highland Avenue	S	SB	AM	29.5	0.355	C	29.5	0.369	C	0.0	0.014	No
				PM	35.9	0.517	D	36.3	0.533	D	0.4	0.016	No
5	Highland Avenue at SR-210 EB Off-Ramp	S	C	AM	23.0	0.449	C	22.8	0.466	C	-0.2	0.017	No
				PM	20.9	0.531	C	20.8	0.534	C	-0.1	0.003	No
6	Highland Avenue at SR-210 WB Off-Ramp	S	C	AM	45.9	0.826	D	46.2	0.835	D	0.3	0.009	No
				PM	40.5	0.767	D	40.1	0.768	D	-0.4	0.001	No
7	Victoria Avenue at Highland Avenue	S	H	AM	28.3	0.567	C	28.2	0.574	C	-0.1	0.007	No
				PM	29.1	0.824	C	29.3	0.824	C	0.2	0.000	No
8	Del Rosa Drive at Pacific Street	S	H	AM	30.1	0.420	C	29.6	0.435	C	-0.5	0.015	No
				PM	27.4	0.440	C	26.9	0.471	C	-0.5	0.031	No
9	Victoria Avenue at Pacific Street	S	H	AM	36.4	0.569	D	36.5	0.593	D	0.1	0.024	No
				PM	32.0	0.399	C	30.8	0.405	C	-1.2	0.006	No
10	Victoria Avenue at 14th Street	S	H	AM	7.1	0.263	A	6.8	0.293	A	-0.3	0.030	No
				PM	13.4	0.223	B	11.7	0.228	B	-1.7	0.005	No
11	Tippecanoe Avenue at Baseline Street	S	SB	AM	22.8	0.437	C	23.4	0.465	C	0.6	0.028	No
				PM	24.4	0.520	C	24.0	0.526	C	-0.4	0.006	No
12	Del Rosa Drive at Baseline Street	S	SB	AM	31.7	0.403	C	31.3	0.469	C	-0.4	0.066	No
				PM	35.2	0.415	D	39.2	0.456	D	4.0	0.041	No
13	Sterling Avenue at Base Line	S	H	AM	30.7	0.419	C	30.0	0.423	C	-0.7	0.004	No
				PM	33.9	0.562	C	33.7	0.576	C	-0.2	0.014	No
14	Victoria Avenue at Base Line	S	H	AM	29.8	0.366	C	28.7	0.391	C	-1.1	0.025	No
				PM	33.3	0.386	C	32.1	0.421	C	-1.2	0.035	No
15	Tippecanoe Avenue at 9th Street	S	H	AM	31.2	0.438	C	31.1	0.445	C	-0.1	0.007	No
				PM	28.7	0.339	C	28.7	0.339	C	0.0	0.000	No
16	Del Rosa Drive at 9th Street	S	SB	AM	33.0	0.518	C	32.1	0.518	C	-0.9	0.000	No
				PM	28.6	0.392	C	27.3	0.433	C	-1.3	0.041	No
17	Sterling Avenue at 9th Street	S	H	AM	29.1	0.390	C	29.8	0.403	C	0.7	0.013	No
				PM	29.3	0.412	C	29.2	0.429	C	-0.1	0.017	No
18	Victoria Avenue at 9th Street	S	H	AM	27.1	0.254	C	25.2	0.281	C	-1.9	0.027	No
				PM	28.3	0.262	C	26.2	0.297	C	-2.1	0.035	No
19	Del Rosa Drive at 6th Street	S	SB	AM	33.9	0.540	C	35.6	0.611	D	1.7	0.071	No
				PM	21.0	0.267	C	22.6	0.331	C	1.6	0.064	No
20	Sterling Avenue at 6th Street	U	SB	AM	53.8	0.269	F	170.5	0.468	F	116.7	0.199	No
				PM	39.3	0.226	E	183.1	0.734	F	143.8	0.508	No
21	Victoria Avenue at 6th Street	U	H	AM	15.6	0.062	C	27.9	0.115	D	12.3	0.053	No
				PM	18.7	0.144	C	53.6	0.156	F	34.9	0.012	No
22	Central Avenue at 6th Street	U	SB	AM	10.7	0.085	B	12.1	0.116	B	1.4	0.031	No
				PM	11.0	0.083	B	12.0	0.137	B	1.0	0.054	No
23	I-215 SB Ramps at 5th Street	S	C	AM	24.6	0.513	C	24.6	0.525	C	0.0	0.012	No
				PM	20.2	0.521	C	28.9	0.591	C	8.7	0.070	No
24	I-215 NB Ramps at 5th Street	S	C	AM	28.9	0.425	C	27.8	0.500	C	-1.1	0.075	No
				PM	24.1	0.669	C	23.5	0.678	C	-0.6	0.009	No
25	E Street at 5th Street	S	SB	AM	10.3	0.365	B	10.3	0.433	B	0.0	0.068	No
				PM	16.5	0.442	B	17.5	0.518	B	1.0	0.076	No
26	Arrowhead Avenue at 5th Street	S	SB	AM	34.0	0.338	C	32.1	0.406	C	-1.9	0.068	No
				PM	33.8	0.361	C	32.9	0.440	C	-0.9	0.079	No

TABLE 4
SUMMARY OF INTERSECTION OPERATION
EXISTING PLUS PROJECT CONDITIONS

Int. #	Intersection	Traffic Control	Juris-diction	Peak Hour	Existing Conditions			Existing Plus Project Conditions			Project Impact / Significance		
					Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C	Impact Sig?
27	Waterman Avenue at 5th Street	S	SB	AM	25.3	0.361	C	27.1	0.427	C	1.8	0.066	No
				PM	25.5	0.425	C	27.4	0.453	C	1.9	0.028	No
28	Tippecanoe Avenue at 5th Street	S	H	AM	22.5	0.281	C	28.4	0.329	C	5.9	0.048	No
				PM	27.6	0.470	C	32.2	0.552	C	4.6	0.082	No
29	Del Rosa Drive at 5th Street	S	H	AM	19.0	0.330	B	20.9	0.479	C	1.9	0.149	No
				PM	21.6	0.311	C	22.7	0.433	C	1.1	0.122	No
30	Sterling Avenue at 5th Street	S	SB	AM	19.0	0.146	B	25.4	0.352	C	6.4	0.206	No
				PM	24.9	0.305	C	25.8	0.508	C	0.9	0.203	No
31	Victoria Avenue at 5th Street	S	H	AM	31.2	0.336	C	34.5	0.541	C	3.3	0.205	No
				PM	27.0	0.389	C	32.9	0.578	C	5.9	0.189	No
32	Central Avenue at 5th Street	S	H	AM	10.8	0.305	B	10.3	0.414	B	-0.5	0.109	No
				PM	13.2	0.353	B	14.5	0.456	B	1.3	0.103	No
33	Palm Avenue at 5th Street	S	H	AM	54.0	0.591	D	78.5	0.709	E	24.5	0.118	Yes
				PM	46.3	0.876	D	82.2	1.027	F	35.9	0.151	Yes
34	Church Avenue at 5th Street	S	H	AM	9.9	0.448	A	10.6	0.603	B	0.7	0.155	No
				PM	6.1	0.479	A	6.2	0.621	A	0.1	0.142	No
35	SR-210 EB Ramps at 5th Street	S	C	AM	25.5	0.661	C	31.9	0.865	C	6.4	0.204	No
				PM	26.7	0.657	C	28.5	0.838	C	1.8	0.181	No
36	SR-210 WB Ramps at 5th Street/Greenspot Road	S	C	AM	24.4	0.488	C	25.5	0.603	C	1.1	0.115	No
				PM	28.9	0.487	C	28.6	0.626	C	-0.3	0.139	No
37	Tippecanoe Avenue at 3rd Street	S	SB	AM	29.2	0.384	C	29.6	0.457	C	0.4	0.073	No
				PM	29.7	0.636	C	47.8	0.713	D	18.1	0.077	No
38	Del Rosa Drive at 3rd Street	S	SB	AM	33.3	0.417	C	33.5	0.452	C	0.2	0.035	No
				PM	28.9	0.612	C	29.1	0.636	C	0.2	0.024	No
39	Sterling Avenue at 3rd Street	S	SB	AM	19.6	0.476	B	22.9	0.574	C	3.3	0.098	No
				PM	13.7	0.421	B	16.2	0.486	B	2.5	0.065	No
40	Victoria Avenue at 3rd Street	S	H	AM	40.6	0.499	D	40.1	0.533	D	-0.5	0.034	No
				PM	22.5	0.372	C	22.0	0.398	C	-0.5	0.026	No
41	Central Avenue at 3rd Street	U	H	AM	15.3	0.000	C	17.6	0.000	C	2.3	0.000	No
				PM	40.5	0.010	E	48.2	0.012	E	7.7	0.002	Yes
42	Palm Avenue at 3rd Street	S	H	AM	18.7	0.485	B	20.2	0.533	C	1.5	0.048	No
				PM	23.6	0.426	C	24.7	0.451	C	1.1	0.025	No
43	Tippecanoe Avenue at Rialto Avenue	S	SB	AM	11.8	0.360	B	10.6	0.371	B	-1.2	0.011	No
				PM	10.2	0.371	B	9.8	0.408	A	-0.4	0.037	No
44	Tippecanoe Avenue at Mill Street	S	SB	AM	19.9	0.442	B	19.6	0.484	B	-0.3	0.042	No
				PM	17.9	0.471	B	18.0	0.541	B	0.1	0.070	No
45	Tippecanoe Avenue at Central Avenue	S	SB	AM	24.5	0.406	C	23.5	0.450	C	-1.0	0.044	No
				PM	26.6	0.528	C	26.0	0.538	C	-0.6	0.010	No
46	Tippecanoe Ave at Orange Show/San Bernardino Ave	S	SB	AM	26.2	0.460	C	25.4	0.482	C	-0.8	0.022	No
				PM	33.8	0.634	C	34.2	0.669	C	0.4	0.035	No
47	Tippecanoe Avenue at Hospitality Lane	S	SB	AM	20.7	0.376	C	19.7	0.383	B	-1.0	0.007	No
				PM	28.7	0.594	C	29.0	0.637	C	0.3	0.043	No
48	Tippecanoe Ave at I-10 WB Ramps / Harriman	S	C	AM	24.8	0.467	C	24.0	0.517	C	-0.8	0.050	No
				PM	28.3	0.611	C	28.0	0.644	C	-0.3	0.033	No
49	Tippecanoe Avenue at I-10 EB Ramps	S	C	AM	22.6	0.524	C	23.5	0.555	C	0.9	0.031	No
				PM	26.9	0.650	C	27.6	0.665	C	0.7	0.015	No

Notes:
- Level of Service is based on the delay value.
- Bold and shaded values indicate intersections operating at LOS E or F or significant impact to intersection per City or Caltrans standards.
- At a signalized intersection, delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.
- At a two-way stop-controlled intersection, delay refers to the average vehicle delay on the movement with the highest delay.
- Delay values are based on the methodology outlined in the 2010 Highway Capacity Manual.
- S = Signalized; U = Unsignalized
- C = Caltrans; SB = San Bernardino; H = Highland

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Existing Plus Project condition, and the results are summarized on Table 5. Review of this table indicates that with the addition of Project traffic, the following roadway segments would operate at an unacceptable Level of Service (LOS D or worse):

- Del Rosa Drive: Highland Avenue to Pacific Street (LOS D)
- 6th Street:
  - Sterling Avenue to Victoria Avenue (LOS D)
  - Victoria Avenue to Central Avenue (LOS D)
- 5th Street:
  - Waterman Avenue to Tippecanoe Avenue (LOS F)
  - Tippecanoe Avenue to Del Rosa Drive (LOS F)
  - Sterling Avenue to Victoria Avenue (LOS F)
  - Victoria Avenue to Central Avenue (LOS F)
  - Central Avenue to Palm Avenue (LOS F)
  - Palm Avenue to SR-210 SB Ramps (LOS E)

The Project impact on each of these roadway segments would be considered to be a significant project impact. With the exception of the Del Rosa Drive roadway segment, the deficient roadways are located within the Specific Plan boundaries, and would require improvement as part of the future development of the Specific Plan, as discussed later in this report.

FUTURE CONDITIONS

The Airport Gateway Specific Plan is a programmatic policy-level plan that will be developed incrementally over time, as market conditions allow. There are no identified developers, end users, or even site-specific plans at this time. As developers purchase and assemble individual parcels into parcels large enough for the allowed uses and submit applications for development, a site-specific traffic study, among other technical studies, will be required as part of the entitlement process. Since the timing of development of any portion of the Specific Plan area is uncertain, the analysis of the project for future conditions will focus on build-out conditions for the area.

Future Build-Out 2040 Conditions

To develop Future Build-Out 2040 intersection and roadway traffic forecasts, the San Bernardino Transportation Analysis Model (SBTAM) Base Year 2012 and Build-out Year 2040 model outputs were used. The raw volumes obtained from the model output were post-processed by determining the annual growth between the base model year and the future model year, and applying the growth increment to existing count volumes. This was accomplished using the B-Turns methodology, developed by the Federal Highway Administration (FHWA). As a conservative approach, if a future forecast volume produced by this process was less than the Existing volume, manual adjustments were made to assure that all forecast volumes would not be less than the Existing volumes.

TABLE 5
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING PLUS PROJECT

Roadway	Segment	LOS E Capacity	Existing ADT[1]	Project ADT	Existing Plus Project ADT	V/C	LOS
Waterman Avenue	Baseline Street to 5th Street	40,000	13,114	321	13,435	0.336	A
	5th Street to 3rd Street	60,000	13,824	704	14,528	0.242	A
Tippecanoe Avenue	Baseline Street to 6th Street	30,000	5,118	1,146	6,264	0.209	A
	6th Street to 3rd Street	30,000	7,663	5,060	12,723	0.424	A
	3rd Street to Mill Street	60,000	13,090	9,386	22,476	0.375	A
	Mill Street to Orange Show Road / San Bernardino Avenue	40,000	16,332	9,386	25,718	0.643	B
	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	60,000	12,290	9,386	21,676	0.361	A
Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	40,000	10,635	2,300	12,935	0.323	A
	Highland Avenue to Pacific Street	12,000	8,174	2,300	10,474	0.873	D
	Pacific Street to Baseline Street	30,000	5,905	2,300	8,205	0.274	A
	Baseline Street to 9th Street	40,000	4,993	6,152	11,145	0.279	A
	9th Street to 6th Street	40,000	4,750	6,152	10,902	0.273	A
	6th Street to 3rd Street	30,000	4,137	1,628	5,765	0.192	A
Sterling Avenue	Base Line to 9th Street	40,000	6,868	3,240	10,108	0.253	A
	9th Street to 6th Street	40,000	5,209	1,968	7,177	0.179	A
	6th Street to 3rd Street	40,000	6,984	6,232	13,216	0.330	A
Victoria Avenue	Highland Avenue to Pacific Street	40,000	12,184	4,404	16,588	0.415	A
	Pacific Street to Base Line	40,000	14,431	4,900	19,331	0.483	A
	Base Line to 9th Street	30,000	11,210	4,900	16,110	0.537	A
	9th Street to 6th Street	30,000	8,368	4,900	13,268	0.442	A
	6th Street to 3rd Street	30,000	8,368	712	9,080	0.303	A
6th Street	Tippecanoe Avenue to Del Rosa Drive	10,000	1,457	1,242	2,699	0.270	A
	Del Rosa Drive to Sterling Avenue	10,000	2,395	2,960	5,355	0.536	A
	Sterling Avenue to Victoria Avenue	10,000	1,818	6,532	8,350	0.835	D
	Victoria Avenue to Central Avenue	10,000	1,574	6,871	8,445	0.845	D
5th Street	I-215 NB Ramps to E Street	40,000	15,618	11,800	27,418	0.685	B
	E Street to Waterman Avenue	40,000	10,206	11,800	22,006	0.550	A
	Waterman Avenue to Tippecanoe Avenue	15,000	5,159	12,566	17,725	1.182	F
	Tippecanoe Avenue to Del Rosa Drive	15,000	8,725	14,537	23,262	1.551	F
	Del Rosa Drive to Sterling Avenue	40,000	2,939	19,575	22,514	0.563	A
	Sterling Avenue to Victoria Avenue	15,000	2,456	21,993	24,449	1.630	F
	Victoria Avenue to Central Avenue	15,000	9,939	22,319	32,258	2.151	F
	Central Avenue to Palm Avenue	15,000	9,939	25,092	35,031	2.335	F
	Palm Avenue to SR-210 SB Ramps	40,000	14,466	24,646	39,112	0.978	E
3rd Street	Waterman Avenue to Tippecanoe Avenue	40,000	10,460	1,226	11,686	0.292	A
	Tippecanoe Avenue to Del Rosa Drive	40,000	15,620	10,845	26,465	0.662	B
	Del Rosa Drive to Sterling Avenue	40,000	18,143	9,786	27,929	0.698	B
	Sterling Avenue to Victoria Avenue	40,000	13,457	4,401	17,858	0.446	A
	Victoria Avenue to Palm Avenue	40,000	10,714	4,249	14,963	0.374	A

Notes: [1] Existing daily traffic volumes include passenger car equivalent (PCE) factors for trucks: 2-axle - 2.0; 3-axle - 2.5; 4+-axle - 3.0

LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity

The Future Build-out 2040 SBTAM forecasts include land use assumptions within the Specific Plan area, based on the current General Plan land use designation for the area – a combination of low- and medium-density residential, industrial, commercial, and institutional uses. For a conservative approach, the trips associated with these land uses were not deducted from the 2040 forecasts before adding the Specific Plan project-related trips.

The SBTAM Model plots and B-Turns worksheets are provided in *Appendix D.* The resulting Future Build-out 2040 peak hour intersection traffic volumes are shown on Figure 14. Daily roadway volumes are shown on Figure 15.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Future Build-Out 2040 condition, and the results are shown on Table 6. The intersection analysis worksheets are provided in *Appendix C*.

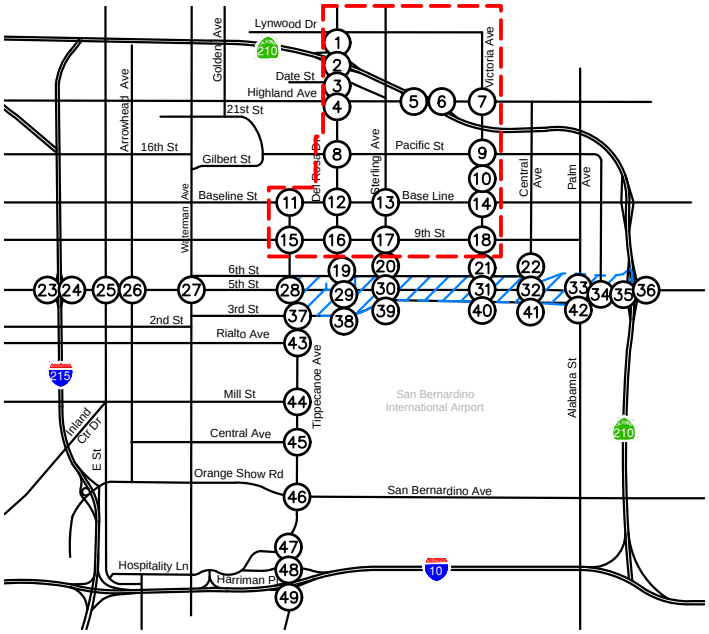
Review of this table indicates that, under Future Build-Out 2040 conditions, the following intersections would operate at an unacceptable Level of Service:

- #1 – Del Rosa Drive at SR-210 WB Ramps: AM – LOS E
- #7 – Victoria Avenue at Highland Avenue: PM – LOS E
- #20 – Sterling Avenue at 6th Street: AM LOS F; PM LOS F
- #21 – Victoria Avenue at 6th Street: PM – LOS E
- #38 – Del Rosa Drive at 3rd Street: PM – LOS E
- #41 – Central Avenue at 3rd Street: PM – LOS F
- #42 – Palm Avenue at 3rd Street: PM – LOS E
- #46 – Tippecanoe Avenue at Orange Show Road/San Bernardino Avenue: PM – LOS E

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Future Build-Out 2040 condition, and the results are summarized on Table 7. Review of this table indicates that for the Future Build-Out 2040 condition, all study roadway segments would operate at Level of Service C or better, except for the following roadway segment:

- Del Rosa Drive: Highland Avenue to Pacific Street (LOS D)
- 5th Street: Tippecanoe Avenue to Del Rosa Drive (LOS E)
- 3rd Street: Del Rosa Drive to Sterling Avenue (LOS D)



1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
774/373 ← 530/390 ↖ 144/305 ← 157/186	461/416 ← 232/161 ↙
587/640 ↑ 543/785 ↑	360/406 → 1/1 → 714/751 ↘ 817/1008 ↑ 112/147 ↑

3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
80/130 ← 894/786 ← 181/244 ↖ 153/209 ← 28/71 ← 15/46	128/123 ← 610/428 ← 122/174 ↖ 135/183 ← 273/503 ← 51/88
128/142 → 29/57 → 43/54 ↘ 31/63 ↑ 628/807 ↑ 21/48 ↑	52/174 → 274/628 → 157/169 ↘ 139/206 ↑ 432/550 ↑ 44/75 ↑

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 On-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
175/190 ↙ 926/1025 ↙ ← 390/728	305/274 ← 338/205 ← 59/66 ↖ 139/176 ← 868/1674 ← 154/170	286/746 ← 479/489 ← 162/395 ↖ 224/298 ← 348/567 ← 86/153	200/146 ← 432/366 ← 44/66 ↖ 44/40 ← 291/228 ← 94/41	190/191 ← 439/473 ← 123/152 ↖ 159/134 ← 344/284 ← 50/42
354/765 →	79/127 → 1061/1147 → 281/350 ↘ 378/326 ↑ 166/104 ↑ 100/66 ↑	566/806 → 376/507 → 119/207 ↘ 241/293 ↑ 646/594 ↑ 89/120 ↑	154/147 → 262/369 → 33/31 ↘ 48/27 ↑ 236/521 ↑ 37/99 ↑	194/170 → 288/429 → 206/190 ↘ 165/145 ↑ 454/554 ↑ 30/55 ↑

10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
4/12 ← 663/611 ← 27/31 ↖ 54/55 ← 6/4 ← 25/27	← 488/499 ← 191/165	146/128 ← 406/253 ← 39/85 ↖ 39/56 ← 378/472 ← 106/26	84/100 ← 479/317 ← 163/202 ↖ 195/216 ← 338/354 ← 44/60	125/123 ← 422/349 ← 134/150 ↖ 121/145 ← 245/327 ← 41/45
8/29 → 0/10 → 0/3 ↘ 0/39 ↑ 535/121 ↑ 11/82 ↑	351/651 → 227/167 ↘ 193/283 ↑ 161/249 ↑	55/187 → 232/693 → 155/43 ↘ 50/57 ↑ 233/445 ↑ 77/64 ↑	71/147 → 225/551 → 48/51 ↘ 30/85 ↑ 256/529 ↑ 35/76 ↑	105/116 → 211/494 → 30/59 ↘ 48/62 ↑ 320/434 ↑ 22/92 ↑

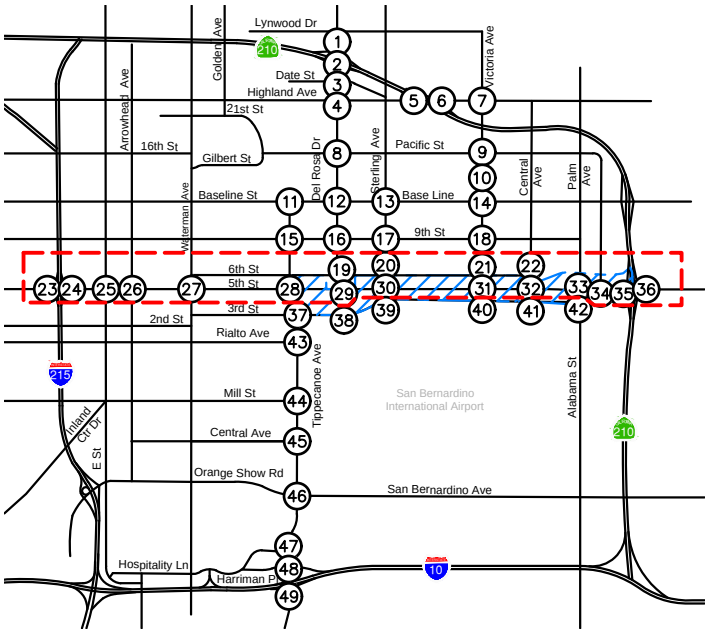
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St
23/48 ← 378/265 ← 24/12 ↖ 22/24 ← 327/350 ← 110/49	108/64 ← 290/287 ← 163/57 ↖ 45/49 ← 264/359 ← 33/40	83/75 ← 452/248 ← 55/71 ↖ 85/73 ← 287/207 ← 122/92	84/66 ← 333/227 ← 44/59 ↖ 55/57 ← 141/161 ← 47/24
42/89 → 429/428 → 184/103 ↘ 122/183 ↑ 257/613 ↑ 76/57 ↑	57/53 → 452/258 → 153/77 ↘ 95/123 ↑ 131/513 ↑ 137/84 ↑	80/97 → 192/302 → 63/77 ↘ 44/78 ↑ 207/461 ↑ 59/195 ↑	59/100 → 115/236 → 67/68 ↘ 60/79 ↑ 161/400 ↑ 17/39 ↑

NOT TO SCALE

LEGEND:
(X) = Study Intersection
XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 14A
FUTURE BUILD-OUT 2040 PEAK HOUR TRAFFIC VOLUMES

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19. Del Rosa Dr at 6th St	20. Sterling Ave at 6th St
95/30 ↙ 404/261 ↓ 54/19 ↘ ← 44/36 ← 144/86 ← 97/40 155/55 → 144/124 → 56/14 ↘ 71/10 ↑ 232/523 ↑ 40/132	43/29 ↙ 677/372 ↓ 28/28 ↘ ← 15/18 ← 116/76 ← 9/10 44/55 → 102/104 → 14/11 ↘ 15/19 ↑ 259/725 ↑ 13/41
21. Victoria Ave at 6th St	**22. Central Ave at 6th St**
23/24 ↙ 423/227 ↓ 39/62 ↘ ← 38/32 ← 46/52 ← 62/30 23/26 → 57/65 → 41/25 ↘ 31/46 ↑ 120/484 ↑ 7/74	38/31 ↙ 111/81 ↘ 45/56 → 27/28 ↘ 10/22 ↑ 82/185 ↑

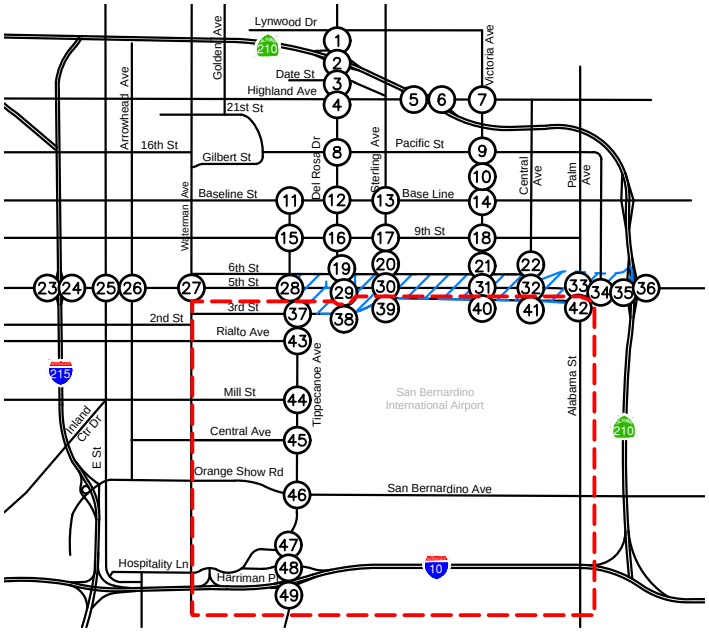
23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St	27. Waterman Ave at 5th St
241/186 ↙ 7/6 ↓ 532/311 ↘ ← 700/805 ← 458/498 442/858 → 350/393 ↘	↖ 148/644 ← 825/925 150/225 → 840/951 → 312/380 ↑ 0/3 ↑ 542/480 ↑	17/60 ↙ 143/163 ↓ 11/28 ↘ ← 12/24 ← 421/893 ← 14/44 75/26 → 994/611 → 40/42 ↘ 27/94 ↑ 109/309 ↑ 26/45 ↑	38/51 ↙ 227/146 ↓ 40/28 ↘ ← 12/30 ← 433/741 ← 39/52 46/60 → 806/575 → 144/35 ↘ 46/107 ↑ 98/411 ↑ 38/77 ↑	110/132 ↙ 656/597 ↓ 18/59 ↘ ← 16/34 ← 310/291 ← 152/94 70/137 → 283/514 → 248/159 ↘ 128/254 ↑ 413/898 ↑ 104/207 ↑
28. Tippecanoe Ave at 5th St	**29. Del Rosa Dr at 5th St**	**30. Sterling Ave at 5th St**	**31. Victoria Ave at 5th St**	**32. Central Ave at 5th St**
41/24 ↙ 494/320 ↓ 41/60 ↘ ← 40/58 ← 344/257 ← 50/62 32/59 → 218/734 → 72/54 ↘ 36/72 ↑ 176/582 ↑ 23/77 ↑	380/268 ↙ 316/215 ↓ 32/48 ↘ ← 47/36 ← 284/119 ← 27/16 224/526 → 74/398 → 16/21 ↘ 14/39 ↑ 192/343 ↑ 7/24 ↑	55/42 ↙ 519/223 ↓ 80/170 ↘ ← 102/166 ← 269/124 ← 237/106 22/83 → 90/367 → 11/29 ↘ 8/6 ↑ 149/518 ↑ 17/162 ↑	77/39 ↙ 421/217 ↓ 76/75 ↘ ← 78/109 ← 413/238 ← 284/30 21/101 → 109/482 → 55/137 ↘ 19/42 ↑ 130/501 ↑ 17/149 ↑	33/16 ↙ 56/33 ↓ 44/51 ↘ ← 45/75 ← 798/345 ← 40/7 15/24 → 235/723 → 17/7 ↘ 6/2 ↑ 5/124 ↑
33. Palm Ave at 5th St	**34. Church Ave at 5th St**	**35. SR-210 SB Ramps at 5th St**	**36. SR-210 NB Ramps at 5th St**	
98/40 ↙ 664/280 ↓ 145/201 ↘ ← 107/146 ← 671/267 ← 360/190 14/95 → 224/794 → 68/67 ↘ 35/95 ↑ 157/638 ↑ 258/534 ↑	84/30 ↙ 308/198 ↘ ← 129/253 ← 1142/544 25/58 → 564/1704 →	121/118 ↙ 11/9 ↓ 211/559 ↘ ← 951/482 ← 958/389 326/933 → 396/489 ↘	← 393/398 ← 1812/802 94/251 → 538/1628 → 487/240 ↑ 401/610 ↑	

NOT TO SCALE

LEGEND:
- (X) = Study Intersection
- XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 14B
FUTURE BUILD-OUT 2040
PEAK HOUR TRAFFIC VOLUMES

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37. Tippecanoe Ave at 3rd St

58/39 ↙ 664/338 ↓ 52/42 ↘ — 25/54 ↖ 716/330 ← 302/257 ↖

33/70 ↗
220/846 →
54/108 ↘

91/119 ↑ 272/643 ↑ 215/520 ↑

38. Del Rosa Dr at 3rd St

86/69 ↙ 228/131 ↓ 26/44 ↘ — 13/26 ↖ 1075/569 ← 716/351 ↖

73/116 ↗
351/1394 →
34/7 ↘

13/12 ↑ 89/207 ↑ 318/811 ↑

39. Sterling Ave at 3rd St

781/335 ↙ 39/59 ↘ — 23/40 ↖ 1190/585 ←

175/653 ↗
385/1542 →

40. Victoria Ave at 3rd St

603/187 ↙ 30/21 ↓ 156/166 ↘ — 52/156 ↖ 628/300 ← 33/35 ↖

134/509 ↗
262/1125 →
24/7 ↘

12/18 ↑ 12/39 ↑ 26/42 ↑

41. Central Ave at 3rd St

80/30 ↙ 24/22 ↓ — 4/26 ↖ 623/464 ←

23/191 ↗
411/1130 →

0/1 ↑ 0/3 ↑

42. Palm Ave at 3rd St

159/84 ↙ 831/391 ↓ 78/80 ↘ — 235/100 ↖ 104/27 ← 122/77 ↖

106/419 ↗
18/362 →
406/554 ↘

385/434 ↑ 364/829 ↑ 33/95 ↑

43. Tippecanoe Ave at Rialto Ave

101/64 ↙ 841/773 ↓

87/140 ↗
110/78 ↘

90/126 ↑ 528/1184 ↑

44. Tippecanoe Ave at Mill St

95/291 ↙ 1162/1213 ↓ 167/2 ↘ — 165/3 ↖ 211/33 ← 120/25 ↖

244/504 ↗
64/8 →
53/453 ↘

143/245 ↑ 1077/1498 ↑ 142/0 ↑

45. Tippecanoe Ave at Central Ave

131/154 ↙ 1169/1441 ↓ 238/237 ↘ — 195/258 ↖ 95/174 ← 37/96 ↖

101/139 ↗
204/192 →
86/112 ↘

87/106 ↑ 1029/1504 ↑ 170/100 ↑

46. Tippecanoe Ave at Orange Show Rd

76/63 ↙ 945/1110 ↓ 330/507 ↘ — 276/362 ↖ 263/535 ← 121/237 ↖

122/219 ↗
161/699 →
128/145 ↘

75/129 ↑ 918/1176 ↑ 94/164 ↑

47. Tippecanoe Ave at Hospitality Ln

43/114 ↙ 587/946 ↓ 101/130 ↘ — 82/49 ↖ 107/105 ← 180/154 ↖

64/262 ↗
46/238 →
77/332 ↘

458/487 ↑ 1008/782 ↑ 104/260 ↑

48. Tippecanoe Ave at I-10 WB Ramps

92/180 ↙ 742/1185 ↓ — 512/464 ↖ 177/215 ← 528/180 ↖

77/379 ↗
231/794 ↘

125/300 ↑ 817/599 ↑

49. Tippecanoe Ave at I-10 EB Ramps

850/754 ← 161/692 ↘

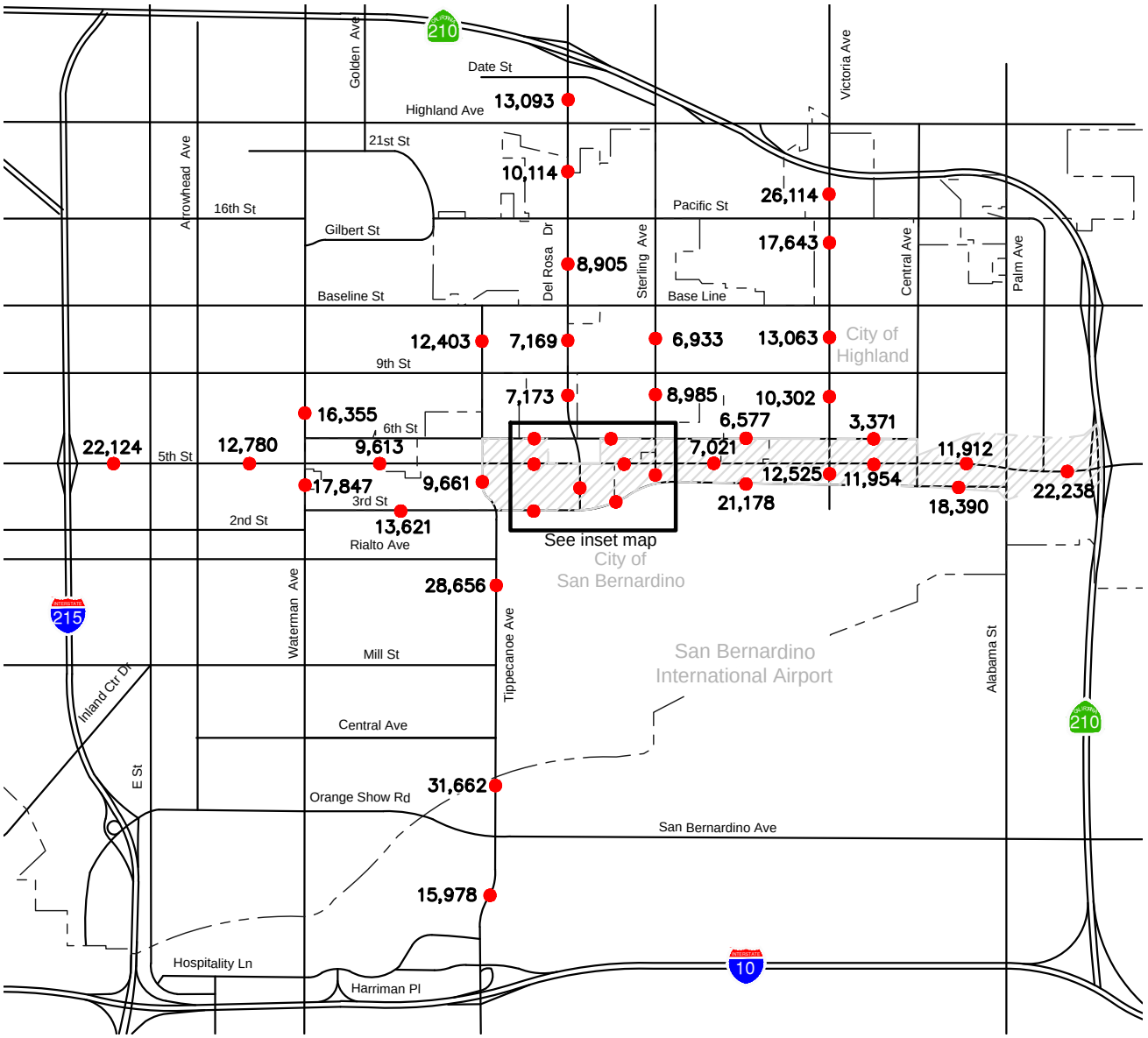
989/781 ↗
6/3 →
976/551 ↘

641/1031 ↑ 308/343 ↑

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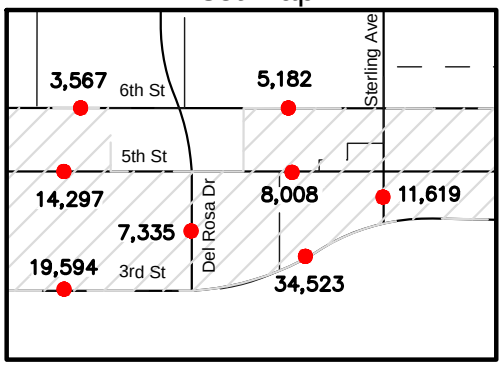
LEGEND:
(X) = Study Intersection
XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 14C
FUTURE BUILD-OUT 2040
PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

Inset Map



LEGEND:

= Specific Plan Boundary

X,XXX = Average Daily Traffic Volume

FIGURE 15
FUTURE BUILD-OUT 2040 ROADWAY TRAFFIC VOLUMES

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TABLE 6
SUMMARY OF INTERSECTION OPERATION
FUTURE BUILD-OUT 2040

Int. #	Intersection	Traffic Control	Jurisdiction	Peak Hour	Future Build-out 2040		
					Delay (sec/veh)	V/C	LOS
1	Del Rosa Drive at SR-210 WB Ramps	S	C	AM	56.4	0.959	E
				PM	35.8	0.834	D
2	Del Rosa Drive at SR-210 EB Ramps	S	C	AM	32.4	0.758	C
				PM	34.4	0.802	C
3	Del Rosa Drive at Date Street	S	SB	AM	14.9	0.384	B
				PM	20.0	0.482	B
4	Del Rosa Drive at Highland Avenue	S	SB	AM	29.8	0.382	C
				PM	36.6	0.533	D
5	Highland Avenue at SR-210 EB Off-Ramp	S	C	AM	22.9	0.391	C
				PM	20.1	0.521	C
6	Highland Avenue at SR-210 WB Off-Ramp	S	C	AM	53.3	0.834	D
				PM	46.1	0.816	D
7	Victoria Avenue at Highland Avenue	S	H	AM	29.8	0.651	C
				PM	59.8	0.929	E
8	Del Rosa Drive at Pacific Street	S	H	AM	29.5	0.405	C
				PM	27.1	0.494	C
9	Victoria Avenue at Pacific Street	S	H	AM	33.3	0.553	C
				PM	32.8	0.511	C
10	Victoria Avenue at 14th Street	S	H	AM	6.4	0.239	A
				PM	11.7	0.249	B
11	Tippecanoe Avenue at Baseline Street	S	SB	AM	21.8	0.412	C
				PM	23.6	0.492	C
12	Del Rosa Drive at Baseline Street	S	SB	AM	30.2	0.438	C
				PM	32.6	0.461	C
13	Sterling Avenue at Base Line	S	H	AM	29.6	0.386	C
				PM	32.6	0.556	C
14	Victoria Avenue at Base Line	S	H	AM	29.1	0.362	C
				PM	33.5	0.443	C
15	Tippecanoe Avenue at 9th Street	S	H	AM	32.3	0.435	C
				PM	39.1	0.380	D
16	Del Rosa Drive at 9th Street	S	SB	AM	32.3	0.460	C
				PM	31.7	0.436	C
17	Sterling Avenue at 9th Street	S	H	AM	29.8	0.388	C
				PM	29.5	0.459	C
18	Victoria Avenue at 9th Street	S	H	AM	27.4	0.271	C
				PM	29.3	0.310	C
19	Del Rosa Drive at 6th Street	S	SB	AM	30.0	0.391	C
				PM	19.0	0.305	B
20	Sterling Avenue at 6th Street	U	SB	AM	148.2	0.481	F
				PM	195.9	0.462	F
21	Victoria Avenue at 6th Street	U	H	AM	22.3	0.087	C
				PM	41.3	0.200	E
22	Central Avenue at 6th Street	U	SB	AM	10.2	0.063	B
				PM	11.1	0.091	B
23	I-215 SB Ramps at 5th Street	S	C	AM	25.4	0.534	C
				PM	20.1	0.514	C
24	I-215 NB Ramps at 5th Street	S	C	AM	30.1	0.408	C
				PM	23.0	0.648	C
25	E Street at 5th Street	S	SB	AM	10.4	0.369	B
				PM	16.9	0.455	B
26	Arrowhead Avenue at 5th Street	S	SB	AM	32.4	0.397	C
				PM	32.9	0.408	C

TABLE 6
SUMMARY OF INTERSECTION OPERATION
FUTURE BUILD-OUT 2040

Int. #	Intersection	Traffic Control	Jurisdiction	Peak Hour	Future Build-out 2040		
					Delay (sec/veh)	V/C	LOS
27	Waterman Avenue at 5th Street	S	SB	AM	25.9	0.465	C
				PM	28.9	0.526	C
28	Tippecanoe Avenue at 5th Street	S	H	AM	27.7	0.399	C
				PM	33.2	0.696	C
29	Del Rosa Drive at 5th Street	S	H	AM	19.2	0.583	B
				PM	22.6	0.680	C
30	Sterling Avenue at 5th Street	S	SB	AM	16.3	0.464	B
				PM	25.8	0.540	C
31	Victoria Avenue at 5th Street	S	H	AM	30.1	0.476	C
				PM	27.5	0.589	C
32	Central Avenue at 5th Street	S	H	AM	10.2	0.326	B
				PM	12.7	0.347	B
33	Palm Avenue at 5th Street	S	H	AM	45.5	0.544	D
				PM	39.1	0.819	D
34	Church Avenue at 5th Street	S	H	AM	14.3	0.567	B
				PM	9.3	0.621	A
35	SR-210 EB Ramps at 5th Street	S	C	AM	26.5	0.725	C
				PM	33.1	0.792	C
36	SR-210 WB Ramps at 5th Street/Greenspot Road	S	C	AM	19.9	0.574	B
				PM	29.6	0.696	C
37	Tippecanoe Avenue at 3rd Street	S	SB	AM	29.6	0.488	C
				PM	32.8	0.716	C
38	Del Rosa Drive at 3rd Street	S	SB	AM	31.4	0.508	C
				PM	57.3	0.741	E
39	Sterling Avenue at 3rd Street	S	SB	AM	28.5	0.733	C
				PM	21.6	0.701	C
40	Victoria Avenue at 3rd Street	S	H	AM	43.3	0.674	D
				PM	41.2	0.581	D
41	Central Avenue at 3rd Street	U	H	AM	25.9	0.000	D
				PM	105.4	0.025	F
42	Palm Avenue at 3rd Street	S	H	AM	44.8	0.751	D
				PM	70.4	0.651	E
43	Tippecanoe Avenue at Rialto Avenue	S	SB	AM	11.9	0.393	B
				PM	11.2	0.426	B
44	Tippecanoe Avenue at Mill Street	S	SB	AM	28.1	0.700	C
				PM	28.7	0.748	C
45	Tippecanoe Avenue at Central Avenue	S	SB	AM	21.8	0.478	C
				PM	25.7	0.639	C
46	Tippecanoe Ave at Orange Show/San Bernardino Ave	S	SB	AM	28.4	0.633	C
				PM	65.5	0.917	E
47	Tippecanoe Avenue at Hospitality Lane	S	SB	AM	24.1	0.473	C
				PM	31.4	0.650	C
48	Tippecanoe Ave at I-10 WB Ramps / Harriman Place	S	C	AM	29.1	0.469	C
				PM	35.5	0.740	D
49	Tippecanoe Avenue at I-10 EB Ramps	S	C	AM	23.6	0.614	C
				PM	31.9	0.745	C

Notes:
- Level of Service is based on the delay value.
- Bold and shaded values indicate intersections operating at LOS E or F or significant impact to intersection per City or Caltrans standards.
- At a signalized intersection, delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.
- At a two-way stop-controlled intersection, delay refers to the average vehicle delay on the movement with the highest delay.
- Delay values are based on the methodology outlined in the 2010 Highway Capacity Manual.
- F* = Per County of San Bernardino CMP guidelines, the Level of Service for an intersection with a v/c of 1.00 or greater is LOS F, regardless of the LOS based on delay.

TABLE 7
SUMMARY OF ROADWAY SEGMENT ANALYSIS
FUTURE BUILD-OUT 2040

Roadway	Segment	LOS **E** Capacity [1]	Future Build-Out 2040 ADT	V/C	LOS
Waterman Avenue	Baseline Street to 5th Street	40,000	16,355	0.409	A
	5th Street to 3rd Street	60,000	17,847	0.297	A
Tippecanoe Avenue	Baseline Street to 6th Street	30,000	12,403	0.413	A
	6th Street to 3rd Street	30,000	9,661	0.322	A
	3rd Street to Mill Street	60,000	28,656	0.478	A
	Mill Street to Orange Show Road / San Bernardino Avenue	40,000	31,662	0.792	C
	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	60,000	15,978	0.266	A
Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	40,000	13,093	0.327	A
	Highland Avenue to Pacific Street	12,000	10,114	0.843	D
	Pacific Street to Baseline Street	30,000	8,905	0.297	A
	Baseline Street to 9th Street	40,000	7,169	0.179	A
	9th Street to 6th Street	40,000	7,173	0.179	A
	6th Street to 3rd Street	30,000	7,335	0.245	A
Sterling Avenue	Base Line to 9th Street	40,000	6,933	0.173	A
	9th Street to 6th Street	40,000	8,985	0.225	A
	6th Street to 3rd Street	40,000	11,619	0.290	A
Victoria Avenue	Highland Avenue to Pacific Street	40,000	26,114	0.653	B
	Pacific Street to Base Line	40,000	17,643	0.441	A
	Base Line to 9th Street	30,000	13,063	0.435	A
	9th Street to 6th Street	30,000	10,302	0.343	A
	6th Street to 3rd Street	30,000	12,525	0.417	A
6th Street	Tippecanoe Avenue to Del Rosa Drive	10,000	3,567	0.357	A
	Del Rosa Drive to Sterling Avenue	10,000	5,182	0.518	A
	Sterling Avenue to Victoria Avenue	10,000	6,577	0.658	B
	Victoria Avenue to Central Avenue	10,000	3,371	0.337	A
5th Street	I-215 NB Ramps to E Street	40,000	22,124	0.553	A
	E Street to Waterman Avenue	40,000	12,780	0.320	A
	Waterman Avenue to Tippecanoe Avenue	15,000	9,613	0.641	B
	Tippecanoe Avenue to Del Rosa Drive	15,000	14,297	0.953	E
	Del Rosa Drive to Sterling Avenue	40,000	8,008	0.200	A
	Sterling Avenue to Victoria Avenue	15,000	7,021	0.468	A
	Victoria Avenue to Central Avenue	15,000	11,954	0.797	C
	Central Avenue to Palm Avenue	15,000	11,912	0.794	C
	Palm Avenue to SR-210 SB Ramps	40,000	22,238	0.556	A
3rd Street	Waterman Avenue to Tippecanoe Avenue	40,000	13,621	0.341	A
	Tippecanoe Avenue to Del Rosa Drive	40,000	19,594	0.490	A
	Del Rosa Drive to Sterling Avenue	40,000	34,523	0.863	D
	Sterling Avenue to Victoria Avenue	40,000	21,178	0.529	A
	Victoria Avenue to Palm Avenue	40,000	18,390	0.460	A

Notes: [1] Source: *City of San Bernardino General Plan Update (2005)*

LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity

Future Build-Out 2040 Plus Project Conditions

Project-related traffic was added to the Future Build-Out 2040 traffic volumes. The resulting Future Build-Out 2040 Plus Project peak hour intersection volumes are shown on Figure 16. Daily roadway volumes are shown on Figure 17.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Future Build-Out 2040 Plus Project condition. The results are shown on Table 8. Copies of intersection analysis worksheets are provided in *Appendix C*.

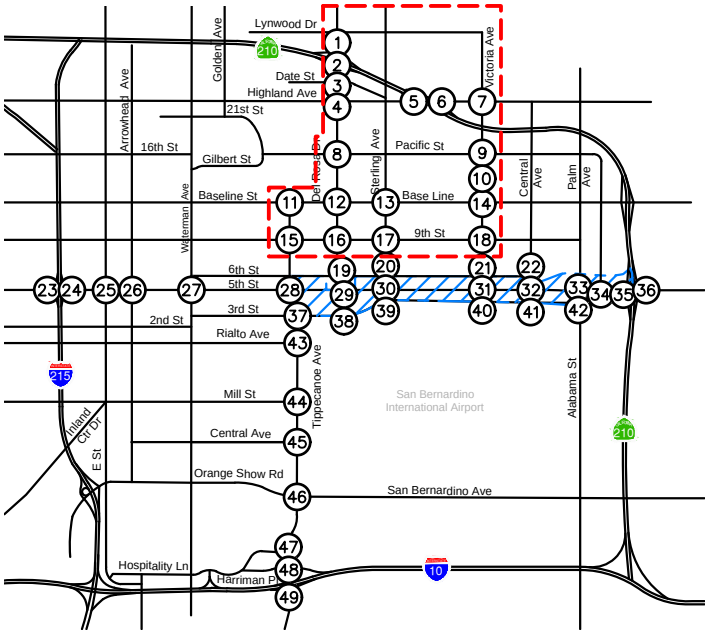
Review of this table indicates that, with the addition of Project traffic, the following intersections would operate at an unacceptable Level of Service:

- #1 – Del Rosa Drive at SR-210 WB Ramps: AM – LOS E
- #7 – Victoria Avenue at Highland Avenue: PM – LOS E
- #20 – Sterling Avenue at 6th Street: AM LOS F; PM LOS F
- #21 – Victoria Avenue at 6th Street: AM – LOS F; PM – LOS F
- #33 – Palm Avenue at 5th Street: AM – LOS E; PM – LOS E
- #38 – Del Rosa Drive at 3rd Street: PM – LOS E
- #41 – Central Avenue at 3rd Street: PM – LOS F
- #42 – Palm Avenue at 3rd Street: PM – LOS E
- #46 – Tippecanoe Avenue at Orange Show Road /San Bernardino Avenue: PM – LOS E

The Project impact at each of these intersections would be considered to be a significant project impact at the following intersections:

- #33 – Palm Avenue at 5th Street
- #38 – Del Rosa Drive at 3rd Street
- #46 – Tippecanoe Avenue at Orange Show Road /San Bernardino Avenue

Mitigation measures and improvements for all deficient intersections are identified in the Mitigation Section of this report.



1. Del Rosa Ave at SR-210 WB Ramps

		144/305 ↰
		157/186 ↰
774/373 ↙	530/390 ↓	
	602/708 ↑	
	543/785 ↑	

2. Del Rosa Ave at SR-210 EB Ramps

		461/416 ↙
		232/161 ↙
360/406 ↗		
1/1 →		
790/769 ↘		
	832/1076 ↑	
	112/147 ↑	

3. Del Rosa Ave at Date St

		157/223 ←
		28/71 ←
80/130 ↙	944/798 ←	15/46 ←
128/142 ↗		
29/57 →		
43/54 ↘	31/63 ↑	
	639/861 ↑	
	21/48 ↑	

4. Del Rosa Ave at Highland Ave

		135/183 ←
		273/503 ←
128/123 ↙	660/440 ←	51/88 ←
52/174 ↗		
274/628 →		
157/169 ↘	139/206 ↑	
	443/604 ↑	
	44/75 ↑	

5. Highland Ave at SR-210 EB Off-Ramp

		←395/748
175/190 ↙	969/1034 ↓	
354/765 →		

6. Highland Ave at SR-210 On-Ramp

		139/176 ←
		884/1753 ←
305/274 ↙	338/205 ←	154/170 ←
79/127 ↗		
1087/1151 →		
298/355 ↘	378/326 ↑	
	166/104 ↑	
	100/66 ↑	

7. Victoria Ave at Highland Ave

		224/298 ←
		348/567 ←
286/746 ↙	516/497 ←	86/153 ←
566/806 ↗		
376/507 →		
145/211 ↘	257/372 ↑	
	651/637 ↑	
	89/120 ↑	

8. Del Rosa Dr at Pacific St

		44/40 ←
		291/228 ←
200/146 ↙	482/378 ←	94/41 ←
154/147 ↗		
262/369 →		
33/31 ↘	48/27 ↑	
	247/575 ↑	
	37/99 ↑	

9. Victoria Ave at Pacific St

		159/134 ←
		344/284 ←
190/191 ↙	502/485 ←	50/42 ←
194/170 ↗		
288/429 →		
223/195 ↘	165/145 ↑	
	475/676 ↑	
	30/55 ↑	

10. Victoria Ave at 14th St

		54/55 ←
		6/4 ←
4/12 ↙	743/628 ←	25/27 ←
8/29 ↗		
0/10 →		
0/3 ↘	0/39 ↑	
	556/243 ↑	
	11/82 ↑	

11. Tippecanoe Ave at Baseline St

		←502/575
		←191/165
416/669 →		
246/171 ↘	193/283 ↑	
	161/249 ↑	

12. Del Rosa Dr at Baseline St

		39/56 ←
		378/472 ←
146/128 ↙	456/265 ←	106/26 ←
55/187 ↗		
232/693 →		
220/61 ↘	64/133 ↑	
	244/499 ↑	
	77/64 ↑	

13. Sterling Ave at Base Line

		195/216 ←
		338/354 ←
84/100 ↙	552/337 ←	44/60 ←
71/147 ↗		
225/551 →		
48/51 ↘	30/85 ↑	
	268/577 ↑	
	35/76 ↑	

14. Victoria Ave at Base Line

		121/145 ←
		245/327 ←
125/123 ↙	502/366 ←	41/45 ←
105/116 ↗		
211/494 →		
30/59 ↘	48/62 ↑	
	341/556 ↑	
	22/92 ↑	

15. Tippecanoe Ave at 9th St

		22/24 ←
		327/350 ←
23/48 ↙	397/269 ←	110/49 ←
42/89 ↗		
429/428 →		
184/103 ↘	122/183 ↑	
	257/613 ↑	
	76/57 ↑	

16. Del Rosa Ave at 9th St

		45/49 ←
		264/359 ←
108/64 ↙	405/317 ←	33/40 ←
57/53 ↗		
452/258 →		
153/77 ↘	95/123 ↑	
	156/643 ↑	
	137/84 ↑	

17. Sterling Ave at 9th St

		89/87 ←
		287/207 ←
83/75 ↙	494/259 ←	122/92 ←
80/97 ↗		
192/302 →		
63/77 ↘	44/78 ↑	
	215/495 ↑	
	59/195 ↑	

18. Victoria Ave at 9th St

		55/57 ←
		141/161 ←
84/66 ↙	413/244 ←	47/24 ←
59/100 ↗		
115/236 →		
67/68 ↘	60/79 ↑	
	182/522 ↑	
	17/39 ↑	

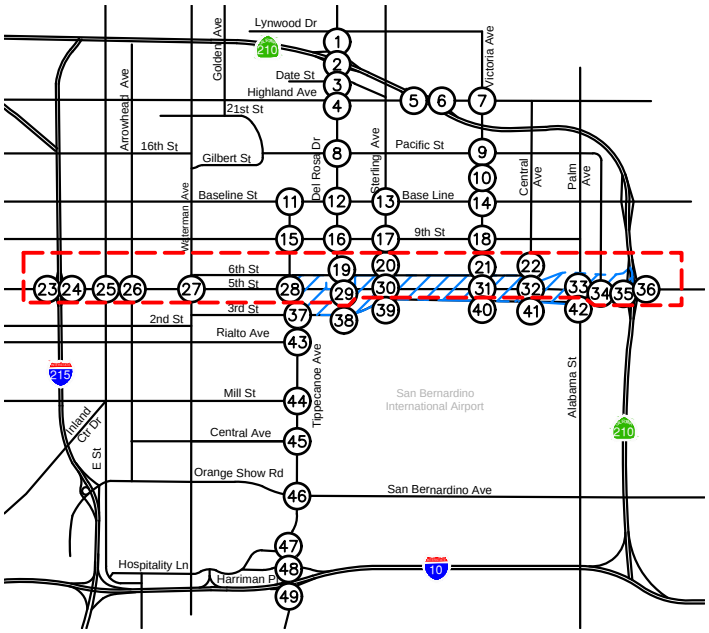
NOT TO SCALE

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 16A
FUTURE BUILD-OUT 2040 PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES



19. Del Rosa Dr at 6th St	20. Sterling Ave at 6th St
98/31 ↙ 491/282 ↓ 79/27 ↘ 50/65 ← 154/99 ← 97/45 156/58 → 155/135 → 60/40 ↘ 91/14 ↑ 250/621 ↑ 44/133	48/31 ↙ 708/379 ↓ 34/30 ↘ 17/26 ← 134/97 ← 54/88 45/61 → 129/139 → 14/11 ↘ 33/23 ↑ 264/745 ↑ 34/46
21. Victoria Ave at 6th St	**22. Central Ave at 6th St**
45/28 ↙ 456/233 ↓ 64/69 ↘ 41/43 ← 97/91 ← 66/32 25/36 → 101/169 → 44/26 ↘ 59/52 ↑ 136/585 ↑ 28/79	92/43 ↙ 115/81 51/82 → 83/142 ↘ 36/28 ↑ 86/225

23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St	27. Waterman Ave at 5th St
241/186 ↙ 7/6 ↓ 532/311 ← 713/859 ← 492/698 489/872 → 350/393 ↘	148/644 ← 872/1179 150/225 → 887/965 ↘ 312/380 ↑ 0/3 ↑ 730/515	17/60 ↙ 143/163 ↓ 11/28 ↘ 12/24 ← 468/1147 ← 14/44 75/26 → 1229/660 → 40/42 ↘ 27/94 ↑ 109/309 ↑ 26/45	38/51 ↙ 227/146 ↓ 40/28 ↘ 12/30 ← 480/995 ← 39/52 46/60 → 1041/624 → 144/35 ↘ 46/107 ↑ 98/411 ↑ 38/77	113/149 ↙ 656/605 ↓ 18/59 ↘ 16/34 ← 354/528 ← 156/113 70/137 → 518/563 → 248/159 ↘ 128/254 ↑ 413/898 ↑ 129/211
28. Tippecanoe Ave at 5th St	**29. Del Rosa Dr at 5th St**	**30. Sterling Ave at 5th St**	**31. Victoria Ave at 5th St**	**32. Central Ave at 5th St**
41/24 ↙ 495/325 ↓ 55/63 ↘ 43/74 ← 382/461 ← 63/132 54/63 → 405/773 → 123/64 ↘ 46/124 ↑ 181/583 ↑ 90/91	393/271 ↙ 340/225 ↓ 86/87 ↘ 77/100 ← 416/345 ← 29/25 227/540 → 285/543 → 16/21 ↘ 14/39 ↑ 201/368 ↑ 15/26	103/87 ↙ 534/260 ↓ 93/173 ↘ 120/176 ← 418/330 ← 250/180 35/99 → 310/587 → 11/29 ↘ 20/8 ↑ 162/521 ↑ 101/180	90/43 ↙ 433/219 ↓ 91/78 ↘ 112/166 ← 664/455 ← 284/30 46/137 → 305/767 → 55/137 ↘ 21/43 ↑ 136/520 ↑ 17/149	37/16 ↙ 56/33 ↓ 100/165 ↘ 71/81 ← 1107/568 ← 40/7 19/64 → 396/1002 → 17/7 ↘ 6/2 ↑ 5/124
33. Palm Ave at 5th St	**34. Church Ave at 5th St**	**35. SR-210 SB Ramps at 5th St**	**36. SR-210 NB Ramps at 5th St**	
108/42 ↙ 664/280 ↓ 151/203 ↘ 107/156 ← 1042/422 ← 452/213 14/105 → 372/1196 → 73/105 ↘ 45/97 ↑ 157/638 ↑ 261/535	84/30 ↙ 308/198 ↘ 129/253 ← 1643/649 25/58 → 663/2140 →	352/167 ↙ 11/9 ↓ 211/559 ← 1221/538 ← 958/389 397/1218 → 443/742 ↘	393/398 ← 1849/810 160/493 → 543/1671 → 720/288 ↑ 401/610	

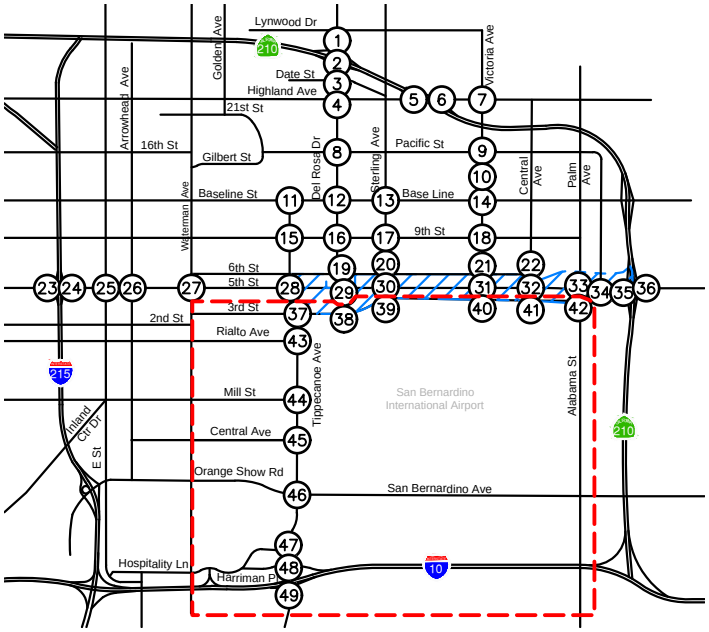
NOT TO SCALE

LEGEND:

(X) = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 16B
FUTURE BUILD-OUT 2040 PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES



37. Tippecanoe Ave at 3rd St

58/39 ↙ 678/413 ↓ 103/52 ↘ — 35/106 ← 719/377 ← 325/395 ↖

33/70 → 262/852 → 54/108 ↘ — 91/119 ↑ 344/658 ↑ 344/553 ↑

38. Del Rosa Dr at 3rd St

103/86 ↙ 228/131 ↓ 35/46 ↘ — 15/35 ← 1130/762 ← 716/351 ↖

88/134 → 532/1460 → 34/7 ↘ — 13/12 ↑ 89/207 ↑ 318/811 ↑

39. Sterling Ave at 3rd St

803/445 ↙ 45/60 ↘ — 37/42 ← 1236/652 ↖

270/674 → 454/1599 →

40. Victoria Ave at 3rd St

609/188 ↙ 30/21 ↓ 162/167 ↘ — 58/164 ← 709/348 ← 33/35 ↖

136/521 → 308/1197 → 24/7 ↘ — 12/18 ↑ 12/39 ↑ 26/42 ↑

41. Central Ave at 3rd St

80/30 ↙ 24/22 ↓ — 4/26 ← 717/504 ↖

23/191 → 446/1209 → — 0/1 ↑ 0/3 ↑

42. Palm Ave at 3rd St

242/100 ↙ 836/434 ↓ 87/82 ↘ — 235/100 ← 105/34 ← 122/77 ↖

106/419 → 42/455 → 406/554 ↘ — 409/439 ↑ 377/832 ↑ 33/95 ↑

43. Tippecanoe Ave at Rialto Ave

101/64 ↙ 878/986 ↓

87/140 → 110/78 ↘ — 90/126 ↑ 729/1232 ↑

44. Tippecanoe Ave at Mill St

95/291 ↙ 1199/1426 ↓ 167/2 ↘ — 165/3 ← 211/33 ← 120/25 ↖

244/504 → 64/8 → 53/453 ↘ — 143/245 ↑ 1278/1546 ↑ 142/0 ↑

45. Tippecanoe Ave at Central Ave

131/154 ↙ 1206/1654 ↓ 238/237 ↘ — 195/258 ← 95/174 ← 37/96 ↖

101/139 → 204/192 → 86/112 ↘ — 87/106 ↑ 1230/1552 ↑ 170/100 ↑

46. Tippecanoe Ave at Orange Show Rd

76/63 ↙ 982/1323 ↓ 330/507 ↘ — 276/362 ← 263/535 ← 121/237 ↖

122/219 → 161/699 → 128/145 ↘ — 75/129 ↑ 1119/1224 ↑ 94/164 ↑

47. Tippecanoe Ave at Hospitality Ln

43/114 ↙ 624/1159 ↓ 101/130 ↘ — 82/49 ← 107/105 ← 180/154 ↖

64/262 → 46/238 → 77/332 ↘ — 458/487 ↑ 1209/830 ↑ 104/260 ↑

48. Tippecanoe Ave at I-10 WB Ramps

92/180 ↙ 779/1398 ↓ — 512/464 ← 177/215 ← 528/180 ↖

77/379 → 231/794 ↘ — 125/300 ↑ 1018/647 ↑

49. Tippecanoe Ave at I-10 EB Ramps

855/797 ↙ 161/692 ↓

1153/821 → 6/3 → 976/551 ↘ — 678/1039 ↑ 308/343 ↑

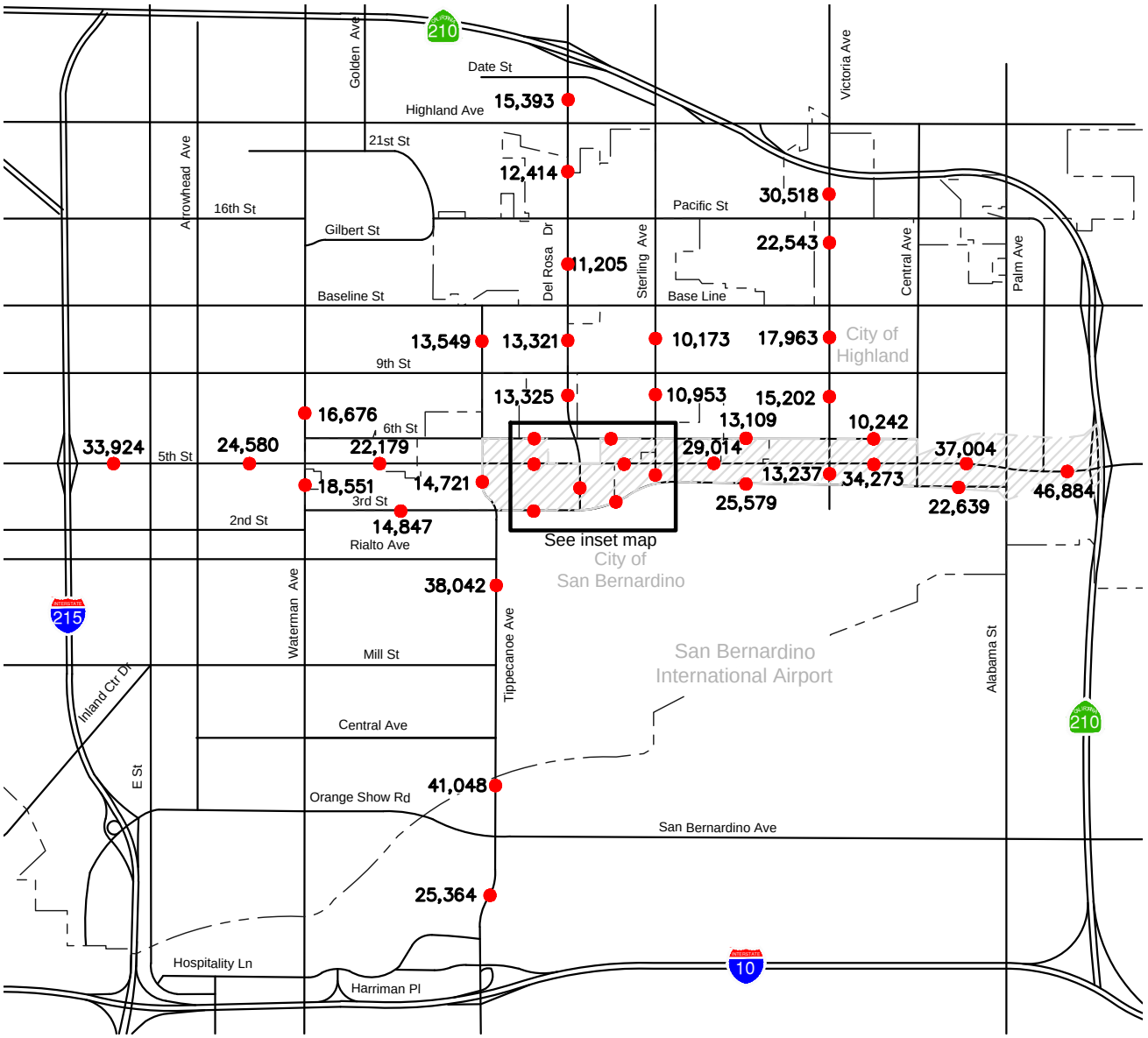
NOT TO SCALE

LEGEND:

(X) = Study Intersection

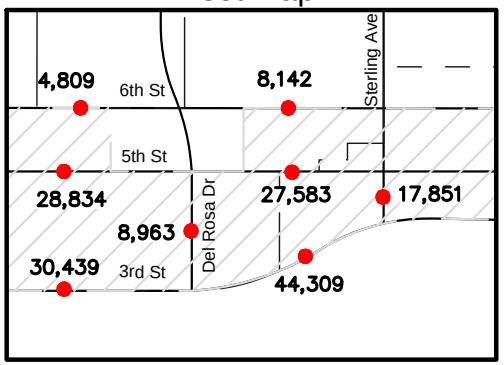
XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 16C
FUTURE BUILD-OUT 2040 PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

Inset Map



LEGEND:

= Specific Plan Boundary

X,XXX = Average Daily Traffic Volume

FIGURE 17
FUTURE BUILD-OUT 2040 PLUS PROJECT ROADWAY TRAFFIC VOLUMES

Kimley»Horn

TABLE 8
SUMMARY OF INTERSECTION OPERATIONS
FUTURE BUILD-OUT 2040 PLUS PROJECT

Int. #	Intersection	Traffic Control	Juris-diction	Peak Hour	Future Build-out 2040			Future Build-Out 2040 Plus Project			Project Impact / Significance		
					Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C	LOS	Delay	V/C	Sig.
1	Del Rosa Drive at SR-210 WB Ramps	S	C	AM	56.4	0.959	E	59.1	0.969	E	2.7	0.010	No
				PM	35.8	0.834	D	42.3	0.876	D	6.5	0.042	No
2	Del Rosa Drive at SR-210 EB Ramps	S	C	AM	32.4	0.758	C	35.5	0.808	D	3.1	0.050	No
				PM	34.4	0.802	C	36.6	0.827	D	2.2	0.025	No
3	Del Rosa Drive at Date Street	S	SB	AM	14.9	0.384	B	15.0	0.400	B	0.1	0.016	No
				PM	20.0	0.482	B	20.9	0.510	C	0.9	0.028	No
4	Del Rosa Drive at Highland Avenue	S	SB	AM	29.8	0.382	C	29.7	0.396	C	-0.1	0.014	No
				PM	36.6	0.533	D	36.9	0.547	D	0.3	0.014	No
5	Highland Avenue at SR-210 EB Off-Ramp	S	C	AM	22.9	0.391	C	22.9	0.405	C	0.0	0.014	No
				PM	20.1	0.521	C	20.1	0.524	C	0.0	0.003	No
6	Highland Avenue at SR-210 WB Off-Ramp	S	C	AM	53.3	0.834	D	52.9	0.842	D	-0.4	0.008	No
				PM	46.1	0.816	D	45.9	0.818	D	-0.2	0.002	No
7	Victoria Avenue at Highland Avenue	S	H	AM	29.8	0.651	C	29.9	0.653	C	0.1	0.002	No
				PM	59.8	0.929	E	63.4	0.951	E	3.6	0.022	No
8	Del Rosa Drive at Pacific Street	S	H	AM	29.5	0.405	C	29.1	0.419	C	-0.4	0.014	No
				PM	27.1	0.494	C	26.8	0.524	C	-0.3	0.030	No
9	Victoria Avenue at Pacific Street	S	H	AM	33.3	0.553	C	33.1	0.570	C	-0.2	0.017	No
				PM	32.8	0.511	C	32.4	0.527	C	-0.4	0.016	No
10	Victoria Avenue at 14th Street	S	H	AM	6.4	0.239	A	6.1	0.261	A	-0.3	0.022	No
				PM	11.7	0.249	B	10.6	0.254	B	-1.1	0.005	No
11	Tippecanoe Avenue at Baseline Street	S	SB	AM	21.8	0.412	C	22.1	0.437	C	0.3	0.025	No
				PM	23.6	0.492	C	23.2	0.498	C	-0.4	0.006	No
12	Del Rosa Drive at Baseline Street	S	SB	AM	30.2	0.438	C	29.9	0.501	C	-0.3	0.063	No
				PM	32.6	0.461	C	37.4	0.493	D	4.8	0.032	No
13	Sterling Avenue at Base Line	S	H	AM	29.6	0.386	C	29.0	0.390	C	-0.6	0.004	No
				PM	32.6	0.556	C	32.4	0.569	C	-0.2	0.013	No
14	Victoria Avenue at Base Line	S	H	AM	29.1	0.362	C	28.2	0.384	C	-0.9	0.022	No
				PM	33.5	0.443	C	32.6	0.475	C	-0.9	0.032	No
15	Tippecanoe Avenue at 9th Street	S	H	AM	32.3	0.435	C	32.1	0.440	C	-0.2	0.005	No
				PM	39.1	0.380	D	39.1	0.382	D	0.0	0.002	No
16	Del Rosa Drive at 9th Street	S	SB	AM	32.3	0.460	C	31.5	0.477	C	-0.8	0.017	No
				PM	31.7	0.436	C	30.6	0.472	C	-1.1	0.036	No
17	Sterling Avenue at 9th Street	S	H	AM	29.8	0.388	C	30.1	0.399	C	0.3	0.011	No
				PM	29.5	0.459	C	29.5	0.474	C	0.0	0.015	No
18	Victoria Avenue at 9th Street	S	H	AM	27.4	0.271	C	25.8	0.293	C	-1.6	0.022	No
				PM	29.3	0.310	C	27.6	0.344	C	-1.7	0.034	No
19	Del Rosa Drive at 6th Street	S	SB	AM	30.0	0.391	C	30.5	0.438	C	0.5	0.047	No
				PM	19.0	0.305	B	20.7	0.364	C	1.7	0.059	No
20	Sterling Avenue at 6th Street	U	SB	AM	148.2	0.481	F	Ovflw	n/a	F	Ovflw	n/a	No
				PM	195.9	0.462	F	Ovflw	n/a	F	Ovflw	n/a	No
21	Victoria Avenue at 6th Street	U	H	AM	22.3	0.087	C	67.5	0.361	F	45.2	0.274	No
				PM	41.3	0.200	E	Ovflw	n/a	F	Ovflw	n/a	No
22	Central Avenue at 6th Street	U	SB	AM	10.2	0.063	B	11.1	0.084	B	0.9	0.021	No
				PM	11.1	0.091	B	12.1	0.145	B	1.0	0.054	No
23	I-215 SB Ramps at 5th Street	S	C	AM	25.4	0.534	C	25.5	0.546	C	0.1	0.012	No
				PM	20.1	0.514	C	22.0	0.580	C	1.9	0.066	No
24	I-215 NB Ramps at 5th Street	S	C	AM	30.1	0.408	C	29.1	0.485	C	-1.0	0.077	No
				PM	23.0	0.648	C	22.5	0.656	C	-0.5	0.008	No
25	E Street at 5th Street	S	SB	AM	10.4	0.369	B	10.4	0.433	B	0.0	0.064	No
				PM	16.9	0.455	B	18.0	0.526	B	1.1	0.071	No
26	Arrowhead Avenue at 5th Street	S	SB	AM	32.4	0.397	C	31.1	0.463	C	-1.3	0.066	No
				PM	32.9	0.408	C	32.0	0.479	C	-0.9	0.071	No

TABLE 8
SUMMARY OF INTERSECTION OPERATIONS
FUTURE BUILD-OUT 2040 PLUS PROJECT

Int. #	Intersection	Traffic Control	Juris-diction	Peak Hour	Future Build-out 2040			Future Build-Out 2040 Plus Project			Project Impact / Significance		
					Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C	LOS	Delay	V/C	Sig.
27	Waterman Avenue at 5th Street	S	SB	AM	25.9	0.465	C	28.5	0.524	C	2.6	0.059	No
				PM	28.9	0.526	C	30.0	0.552	C	1.1	0.026	No
28	Tippecanoe Avenue at 5th Street	S	H	AM	27.7	0.399	C	30.2	0.460	C	2.5	0.061	No
				PM	33.2	0.696	C	41.4	0.770	D	8.2	0.074	No
29	Del Rosa Drive at 5th Street	S	H	AM	19.2	0.583	B	21.3	0.673	C	2.1	0.090	No
				PM	22.6	0.680	C	30.2	0.942	C	7.6	0.262	No
30	Sterling Avenue at 5th Street	S	SB	AM	16.3	0.464	B	15.0	0.669	B	-1.3	0.205	No
				PM	25.8	0.540	C	28.1	0.762	C	2.3	0.222	No
31	Victoria Avenue at 5th Street	S	H	AM	30.1	0.476	C	34.7	0.675	C	4.6	0.199	No
				PM	27.5	0.589	C	35.1	0.887	D	7.6	0.298	No
32	Central Avenue at 5th Street	S	H	AM	10.2	0.326	B	10.1	0.430	B	-0.1	0.104	No
				PM	12.7	0.347	B	13.9	0.432	B	1.2	0.085	No
33	Palm Avenue at 5th Street	S	H	AM	45.5	0.544	D	66.0	0.649	E	20.5	0.105	Yes
				PM	39.1	0.819	D	63.6	0.952	E	24.5	0.133	Yes
34	Church Avenue at 5th Street	S	H	AM	14.3	0.567	B	16.6	0.708	B	2.3	0.141	No
				PM	9.3	0.621	A	10.4	0.750	B	1.1	0.129	No
35	SR-210 EB Ramps at 5th Street	S	C	AM	26.5	0.725	C	32.9	0.873	C	6.4	0.148	No
				PM	33.1	0.792	C	47.5	0.964	D	14.4	0.172	No
36	SR-210 WB Ramps at 5th Street/Greenspot Road	S	C	AM	19.9	0.574	B	24.5	0.683	C	4.6	0.109	No
				PM	29.6	0.696	C	29.3	0.784	C	-0.3	0.088	No
37	Tippecanoe Avenue at 3rd Street	S	SB	AM	29.6	0.488	C	30.2	0.517	C	0.6	0.029	No
				PM	32.8	0.716	C	52.1	0.789	D	19.3	0.073	No
38	Del Rosa Drive at 3rd Street	S	SB	AM	31.4	0.508	C	30.9	0.561	C	-0.5	0.053	No
				PM	57.3	0.741	E	58.5	0.751	E	1.2	0.010	Yes
39	Sterling Avenue at 3rd Street	S	SB	AM	28.5	0.733	C	36.2	0.818	D	7.7	0.085	No
				PM	21.6	0.701	C	29.2	0.773	C	7.6	0.072	No
40	Victoria Avenue at 3rd Street	S	H	AM	43.3	0.674	D	43.7	0.703	D	0.4	0.029	No
				PM	41.2	0.581	D	40.9	0.605	D	-0.3	0.024	No
41	Central Avenue at 3rd Street	U	H	AM	25.9	0.000	D	30.6	0.000	D	4.7	0.000	No
				PM	105.4	0.025	F	129.4	0.000	F	24.0	-0.025	No
42	Palm Avenue at 3rd Street	S	H	AM	44.8	0.751	D	50.8	0.795	D	6.0	0.044	No
				PM	70.4	0.651	E	72.2	0.722	E	1.8	0.071	No
43	Tippecanoe Avenue at Rialto Avenue	S	SB	AM	11.9	0.393	B	10.9	0.403	B	-1.0	0.010	No
				PM	11.2	0.426	B	10.9	0.453	B	-0.3	0.027	No
44	Tippecanoe Avenue at Mill Street	S	SB	AM	28.1	0.700	C	28.3	0.711	C	0.2	0.011	No
				PM	28.7	0.748	C	34.5	0.810	C	5.8	0.062	No
45	Tippecanoe Avenue at Central Avenue	S	SB	AM	21.8	0.478	C	21.5	0.519	C	-0.3	0.041	No
				PM	25.7	0.639	C	25.8	0.648	C	0.1	0.009	No
46	Tippecanoe Ave at Orange Show/San Bernardino Ave	S	SB	AM	28.4	0.633	C	29.4	0.689	C	1.0	0.056	No
				PM	65.5	0.917	E	70.8	0.931	E	5.3	0.014	Yes
47	Tippecanoe Avenue at Hospitality Lane	S	SB	AM	24.1	0.473	C	23.6	0.511	C	-0.5	0.038	No
				PM	31.4	0.650	C	32.7	0.691	C	1.3	0.041	No
48	Tippecanoe Ave at I-10 WB Ramps / Harriman Place	S	C	AM	29.1	0.469	C	28.1	0.518	C	-1.0	0.049	No
				PM	35.5	0.740	D	36.7	0.772	D	1.2	0.032	No
49	Tippecanoe Avenue at I-10 EB Ramps	S	C	AM	23.6	0.614	C	24.1	0.614	C	0.5	0.000	No
				PM	31.9	0.745	C	32.0	0.758	C	0.1	0.013	No

Notes:
- Level of Service is based on the delay value.
- Bold and shaded values indicate intersections operating at LOS E or F or significant impact to intersection per City or Caltrans standards.
- At a signalized intersection, delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.
- At a two-way stop-controlled intersection, delay refers to the average vehicle delay on the movement with the highest delay.
- Delay values are based on the methodology outlined in the 2010 Highway Capacity Manual.
- F* = Per County of San Bernardino CMP guidelines, the Level of Service for an intersection with a v/c of 1.00 or greater is LOS F, regardless of the LOS based on delay.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Future Build-Out 2040 Plus Project condition, and the results are summarized on Table 9. Review of this table indicates that with the addition of Project traffic, the following study roadway segments would operate at an unacceptable Level of Service:

- Tippecanoe Avenue: Mill Street to Orange Show/San Bernardino Avenue (LOS F)
- Del Rosa Drive: Highland Avenue to Pacific Street (LOS F)
- 6th Street:
    - Del Rosa Drive to Sterling Avenue (LOS D)
    - Sterling Avenue to Victoria Avenue (LOS F)
    - Victoria Avenue to Central Avenue (LOS F)
- 5th Street:
    - I-215 NB Ramps to E Street (LOS D)
    - Waterman Avenue to Tippecanoe Avenue (LOS F)
    - Tippecanoe Avenue to Del Rosa Drive (LOS F)
    - Sterling Avenue to Victoria Avenue (LOS F)
    - Victoria Avenue to Central Avenue (LOS F)
    - Central Avenue to Palm Avenue (LOS F)
    - Palm Avenue to SR-210 SB Ramps (LOS F)
- 3rd Street: Del Rosa Drive to Sterling Avenue (LOS F)

The Project impact on each of these roadway segments would be considered to be a significant project impact. Mitigation measures for these segments are identified in the Mitigation Section of this report.

Base Free-Flow Speed Arterial Analysis

The following deficient roadway segments are located wholly within the City of Highland:

- 6th Street:
    - Del Rosa Drive to Sterling Avenue
    - Victoria Avenue to Central Avenue
- 5th Street:
    - Tippecanoe Avenue to Del Rosa Drive
    - Victoria Avenue to Central Avenue
    - Central Avenue to Palm Avenue
    - Palm Avenue to SR-210 SB Ramps

TABLE 9
SUMMARY OF ROADWAY SEGMENT ANALYSIS
FUTURE BUILD-OUT 2040 PLUS PROJECT

Roadway	Segment	LOS **E** Capacity	Future Build-Out 2040 ADT[1]	Project ADT	Future Build-Out 2040 Plus Project ADT	V/C	LOS
Waterman Avenue	Baseline Street to 5th Street	40,000	16,355	321	16,676	0.417	A
	5th Street to 3rd Street	60,000	17,847	704	18,551	0.309	A
Tippecanoe Avenue	Baseline Street to 6th Street	30,000	12,403	1146	13,549	0.452	A
	6th Street to 3rd Street	30,000	9,661	5060	14,721	0.491	A
	3rd Street to Mill Street	60,000	28,656	9386	38,042	0.634	B
	Mill Street to Orange Show Road / San Bernardino Avenue	40,000	31,662	9386	41,048	1.026	F
	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	60,000	15,978	9386	25,364	0.423	A
Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	40,000	13,093	2300	15,393	0.385	A
	Highland Avenue to Pacific Street	12,000	10,114	2300	12,414	1.034	F
	Pacific Street to Baseline Street	30,000	8,905	2300	11,205	0.374	A
	Baseline Street to 9th Street	40,000	7,169	6152	13,321	0.333	A
	9th Street to 6th Street	40,000	7,173	6152	13,325	0.333	A
	6th Street to 3rd Street	30,000	7,335	1628	8,963	0.299	A
Sterling Avenue	Base Line to 9th Street	40,000	6,933	3240	10,173	0.254	A
	9th Street to 6th Street	40,000	8,985	1968	10,953	0.274	A
	6th Street to 3rd Street	40,000	11,619	6232	17,851	0.446	A
Victoria Avenue	Highland Avenue to Pacific Street	40,000	26,114	4404	30,518	0.763	C
	Pacific Street to Base Line	40,000	17,643	4900	22,543	0.564	A
	Base Line to 9th Street	30,000	13,063	4900	17,963	0.599	A
	9th Street to 6th Street	30,000	10,302	4900	15,202	0.507	A
	6th Street to 3rd Street	30,000	12,525	712	13,237	0.441	A
6th Street	Tippecanoe Avenue to Del Rosa Drive	10,000	3,567	1242	4,809	0.481	A
	Del Rosa Drive to Sterling Avenue	10,000	5,182	2960	8,142	0.814	D
	Sterling Avenue to Victoria Avenue	10,000	6,577	6532	13,109	1.311	F
	Victoria Avenue to Central Avenue	10,000	3,371	6871	10,242	1.024	F
5th Street	I-215 NB Ramps to E Street	40,000	22,124	11800	33,924	0.848	D
	E Street to Waterman Avenue	40,000	12,780	11800	24,580	0.615	B
	Waterman Avenue to Tippecanoe Avenue	15,000	9,613	12566	22,179	1.479	F
	Tippecanoe Avenue to Del Rosa Drive	15,000	14,297	14537	28,834	1.922	F
	Del Rosa Drive to Sterling Avenue	40,000	8,008	19575	27,583	0.690	B
	Sterling Avenue to Victoria Avenue	15,000	7,021	21993	29,014	1.934	F
	Victoria Avenue to Central Avenue	15,000	11,954	22319	34,273	2.285	F
	Central Avenue to Palm Avenue	15,000	11,912	25092	37,004	2.467	F
	Palm Avenue to SR-210 SB Ramps	40,000	22,238	24646	46,884	1.172	F
3rd Street	Waterman Avenue to Tippecanoe Avenue	40,000	13,621	1226	14,847	0.371	A
	Tippecanoe Avenue to Del Rosa Drive	40,000	19,594	10845	30,439	0.761	C
	Del Rosa Drive to Sterling Avenue	40,000	34,523	9786	44,309	1.108	F
	Sterling Avenue to Victoria Avenue	40,000	21,178	4401	25,579	0.639	B
	Victoria Avenue to Palm Avenue	40,000	18,390	4249	22,639	0.566	A

Notes: [1] SBTAM Forecasts

LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity

A base free-flow speed (BFFS) arterial analysis was conducted for these segments based on the Highway Capacity Manual 6th Edition. A BFFS arterial analysis evaluates the travel speed of a particular roadway segment compared to its base free-flow speed in each direction of travel. The analysis was conducted using the Highway Capacity Software (HCS7). The results of the analysis are presented on Table 10.

SITE ACCESS AND CIRCULATION

The Specific Plan area presented on Figure 2 (previously referenced) provides a conceptual layout of the Specific Plan area, with potential layout and orientation of buildings within the plan area. The existing grid street system of north-south and east-west streets would remain, with improvements needed to accommodate the project traffic.

Site access provisions to individual developments will be determined through the site plan review process, as site-specific development proposals are brought to the City of San Bernardino or City of Highland for processing. The Specific Plan will specify that any project trucks for the warehouse developments must be assigned to use 3rd Street or 5th Street to enter and exit the warehouse properties. This will be accomplished by requiring that the warehouse building and site layout be designed to have all truck entrances on 3rd Street or 5th Street. No truck entrances will be located on 6th Street. In addition, to the extent possible, depending on the location and layout of a project parcel, site driveways for employee or customer traffic should be located on the north-south streets, to reduce the dependence on 6th Street for access to the area development. Those parcels with frontage on the north-south streets should be required to locate their passenger car driveways on the north-south streets.

TABLE 10
SUMMARY OF BASE FREE-FLOW SPEED ARTERIAL ANALYSIS
FUTURE BUILD-OUT 2040 PLUS PROJECT

Roadway	Segment	Jurisdiction	Speed Limit (mi/hr)	Direction	Future Build-Out 2040 Plus Project					
					AM Peak			PM Peak		
					Travel Speed (mi/h)	% of BFFS	LOS	Travel Speed (mi/h)	% of BFFS	LOS
6th Street	Del Rosa Drive to Sterling Avenue	H	40	Eastbound	32.3	73.3%	B	31.9	72.4%	B
				Westbound	32.7	74.3%	B	34.5	78.2%	B
	Victoria Avenue to Central Avenue	H	40	Eastbound	42.0	95.3%	A	41.7	94.7%	A
				Westbound	42.0	95.4%	A	42.2	95.7%	A
5th Street	Tippecanoe Avenue to Del Rosa Drive	H	40	Eastbound	39.5	89.7%	A	29.5	66.9%	C
				Westbound	23.8	53.9%	C	36.0	81.7%	A
	Victoria Avenue to Central Avenue	H	40	Eastbound	38.3	86.9%	A	33.2	75.4%	B
				Westbound	27.1	61.6%	C	28.3	64.3%	C
	Central Avenue to Palm Avenue	H	40	Eastbound	22.1	50.2%	C	10.2	23.2%	F
				Westbound	31.0	70.3%	B	28.5	64.7%	C
	Palm Avenue to SR-210 SB Ramps	H	40	Eastbound	34.4	78.1%	B	28.8	65.3%	C
				Westbound	29.8	67.6%	B	27.0	61.2%	C

Notes:

LOS = Level of Service BBFS = Base Free-Flow Speed

MITIGATION MEASURES

As noted above, the development of the Airport Gateway Specific would cause a significant impact to 3 study intersections. There would be a total of 9 study intersections that would an unacceptable Level of Service under Future Build-Out 2040 Plus Project conditions. Intersection improvements for these 9 deficient intersections, as shown on Table 11, have been identified to improve the intersections to operate at an acceptable Level of Service. The roadway improvements shown on Table 12 have been identified to mitigate the project impact on the deficient roadway segments.

Most of the roadways within the Specific Plan area are not yet built to their master plan build-out configuration. It is recommended that each development within the Specific Plan be required to construct the roadway improvements along the project frontage to achieve the full roadway width, including curb, sidewalk, and gutter, as indicated on the applicable Circulation Element (either the City of San Bernardino or City of Highland).

In addition, it is recommended that extra width be provided on 5th Street to accommodate the significant number of large trucks that will be associated with the warehouse uses. 5th Street is classified as a Major Arterial with 82 feet of curb-to curb width within 100 feet of right-of-way on the City of San Bernardino Circulation Plan, and as a Major Highway with 80 feet of curb-to-curb width within 104 feet of right-of-way on the City of Highland Circulation Element.

It is recommended that, within the Specific Plan area, 5th Street be designated as a "truck boulevard" with a raised median and three travel lanes in each direction and a 10-foot shoulder on each side of the street, to accommodate the turning radius for large trucks, and to allow trucks to wait outside the travel lanes if an on-site queue blocks the truck from entering the truck yard. The cross-section for this roadway type would be 102 feet of curb-to curb width within 120 feet of right-of-way as follows:

"Truck Boulevard" Cross Section

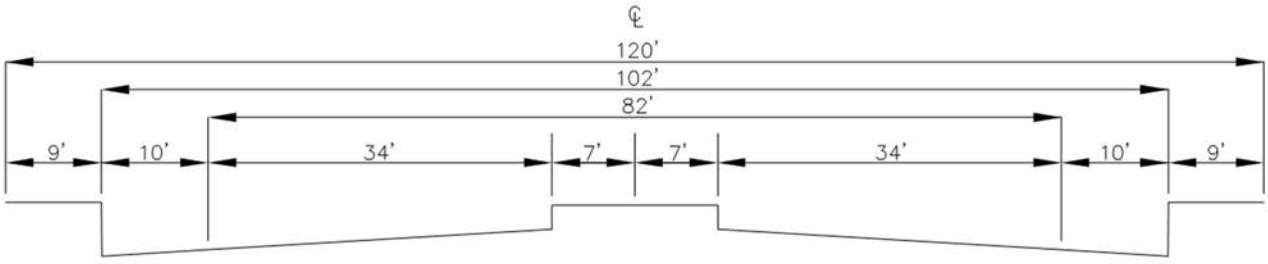


TABLE 11
SUMMARY OF INTERSECTION OPERATION WITH MITIGATION
FUTURE BUILD-OUT 2040 PLUS PROJECT

Int. #	Intersection and Mitigation	AM Peak Hour						PM Peak Hour					
		With Project		With Mitigation			Project	With Project		With Mitigation			Project
		Delay	LOS	Delay	V/C	LOS	Impact	Delay	LOS	Delay	V/C	LOS	Impact
1	Del Rosa Drive at SR-210 WB Ramps												
	Add 2nd NB Left-turn Lane	59.1	E	26.0	0.789	C	-30.4	42.3	D	26.7	0.666	C	-9.1
7	Victoria Avenue at Highland Avenue												
	Add 2nd SB Left-turn Lane	29.9	C	30.2	0.624	C	0.4	63.4	E	46.4	0.918	D	-13.5
20	Sterling Avenue at 6th Street												
	Signalization	Ovflw	F	13.0	0.346	B	-135.2	Ovflw	F	13.8	0.407	B	-182.1
21	Del Rosa Drive at SR-210 WB Ramps												
	Signalization	67.5	F	1.4	0.291	A	-20.9	Ovflw	F	14.2	0.347	B	-27.1
33	Palm Avenue at 5th Street												
	Add NB Right-turn Lane with Overlap	66.0	E	30.2	0.620	C	-15.3	63.6	E	42.3	0.883	D	3.2
38	Del Rosa Drive at 3rd Street												
	Add 3rd EB Through Lane	30.9	C	32.4	0.539	C	1.0	58.5	E	42.9	0.707	D	-14.4
41	Central Avenue at 3rd Street												
	Signalization	30.6	D	7.0	0.269	A	-18.9	129.4	F	5.4	0.390	A	-100.0
42	Del Rosa Drive at SR-210 WB Ramps												
	Add 2nd NB Left-turn Lane	50.8	D	36.2	0.673	D	-8.6	72.2	E	52.1	0.630	D	-18.3
46	Tippecanoe Ave at Orange Show/San Bernardino Ave												
	Add NB RT Lane; Add WB RT Lane with Overlap	29.4	C	26.5	0.605	C	-1.9	70.8	E	41.3	0.801	D	-24.3

Notes:
- Bold and shaded values indicate intersections operating at an unacceptable Level of Service per City standards.
- At a signalized intersection, delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.
- Delay values are based on the methodology outlined in the 6th Edition Highway Capacity Manual.
- S = Signalized; U = Unsignalized

TABLE 12
SUMMARY OF ROADWAY SEGMENT ANALYSIS WITH MITIGATION
FUTURE BUILD-OUT 2040 PLUS PROJECT

Roadway	Segment	Jurisdiction	Mitigated Roadway Configuration	Mitigated LOS **E** Capacity	Future Build-Out 2040 ADT[1]	Project ADT	Future Build-Out 2040 Plus Project ADT	V/C	LOS
Tippecanoe Avenue	Mill Street to Orange Show Road / San Bernardino Avenue	SB	6-Lane Divided Major	60,000	31,662	9,386	41,048	0.684	B
Del Rosa Drive	Highland Avenue to Pacific Street	SB	4-Lane Divided Major	40,000	10,114	2,300	12,414	0.310	A
6th Street	Del Rosa Drive to Sterling Avenue	H	4 Lane Undivided Collector	30,000	5,182	2,960	8,142	0.271	A
	Sterling Avenue to Victoria Avenue	SB / H	4-Lane Undivided Collector	30,000	6,577	6,532	13,109	0.437	A
	Victoria Avenue to Central Avenue	H	4-Lane Undivided Collector	30,000	3,371	6,871	10,242	0.341	A
5th Street	I-215 NB Ramps to E Street	SB	6-Lane Divided Major	60,000	22,124	11,800	33,924	0.565	A
	Waterman Avenue to Tippecanoe Avenue	SB	6-Lane Divided Major	60,000	9,613	12,566	22,179	0.370	A
	Tippecanoe Avenue to Del Rosa Drive	H	6-Lane Divided Major	60,000	14,297	14,537	28,834	0.481	A
	Sterling Avenue to Victoria Avenue	SB / H	6-Lane Divided Major	60,000	7,021	21,993	29,014	0.484	A
	Victoria Avenue to Central Avenue	H	6-Lane Divided Major	60,000	11,954	22,319	34,273	0.571	A
	Central Avenue to Palm Avenue	H	6-Lane Divided Major	60,000	11,912	25,092	37,004	0.617	B
	Palm Avenue to SR-210 SB Ramps	H	6-Lane Divided Major	60,000	22,238	24,646	46,884	0.781	C
3rd Street	Del Rosa Drive to Sterling Avenue	SB / H	6-Lane Divided Major	60,000	34,523	9,786	44,309	0.738	C

Notes: [1] SBTAM Forecasts

LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity

Traffic Signal Warrants

The following unsignalized intersections would operate at an unacceptable Level of Services:

- #20 – Sterling Avenue at 6th Street
- #21 – Victoria Avenue at 6th Street

Traffic signal warrant analyses were completed for these intersections. The California Manual on Uniform Traffic Control Devices (MUTCD, 2017), Warrant 3 for peak hour was used. Using the forecasted volumes from the Future Build-out 2040 Plus Project condition, Warrant 3 is met in both peak hours for intersections #20 and #21. Warrant 3 is met in the AM peak hour only for intersection #41. The traffic signal warrant worksheets are provided in *Appendix G*.

The California Manual on Uniform Traffic Control Devices (MUTCD) specifically states that, "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." The reference document goes on to state a number of other factors to take into account when considering a signal for a specific location, including whether or not a signal would improve the overall safety of the intersection, whether it would benefit or disrupt progressive traffic flow, and consideration of characteristics such as queuing, signal spacing, and overall delay to the main street through movements.

The decision to install a traffic signal should be based on engineering judgment, and not solely upon satisfying a single peak hour warrant. It is recommended that the intersection be monitored once individual projects are completed within the Specific Plan to observe actual peak hour operation, and a decision about signalization should be made based on those observations as well as engineering judgment, based on the factors listed above.

SAN BERNARDINO COUNTY CONGESTION MANAGEMENT PROGRAM

The San Bernardino County Congestion Management Program (CMP) was established in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions. Compliance with CMP requirements ensures a city's eligibility to compete for State gas tax funds for local transportation projects.

The San Bernardino County CMP determines the geographic area for a traffic study with the following criteria:

> "At a minimum, the study area must include all freeway links with 100 or more peak-hour project trips (two-way) and other CMP roadways with 50 or more peak-hour project trips (two-way). Within the defined study area, all "key intersections," as listed in the most current CMP, must be analyzed. Key intersections represent intersections of CMP roadways plus those additional intersections recognized by local jurisdictions and/or SANBAG to be important to mobility on CMP roadways".

The following intersections in the vicinity of the Specific Plan area are listed as a key CMP intersection:

- #4 – Del Rosa Drive at Highland Avenue
- #7 – Victoria Avenue at Highland Avenue
- #12 – Del Rosa Drive at Baseline Street
- #14 – Victoria Avenue at Baseline Street
- #25 – E Street at 5th Street
- #27 – Waterman Avenue at 5th Street
- #29 – Del Rosa Drive at 5th Street
- #31 – Victoria Avenue at 5th Street
- #33 – Palm Avenue at 5th Street
- #38 – Del Rosa Drive at 3rd Street
- #40 – Victoria Avenue at 3rd Street
- #42 – Palm Avenue at 3rd Street
- #46 – Tippecanoe Avenue at Orange Show Road/San Bernardino Avenue

These CMP key intersections were included as study intersections. The project's traffic contribution to these intersections was analyzed. The traffic analysis for the project is in compliance with the San Bernardino County CMP requirements.

FINDINGS AND CONCLUSIONS

TO BE COMPLETED FOLLOWING RECEIPT OF REVIEW COMMENTS

APPENDIX 11b

VMT Analysis

VMT Analysis

for:

Airport Gateway Specific Plan Project

In the Cities of San Bernardino and Highland

February 2021

Kimley»Horn

VMT ANALYSIS
FOR THE
AIRPORT GATEWAY SPECIFIC PLAN PROJECT
IN THE CITIES OF SAN BERNARDINO AND HIGHLAND

Prepared by:

Kimley-Horn and Associates, Inc.

1100 W Town and Country Road, Suite 700
Orange, California 92868

February 2021

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VEHICLE MILE TRAVELED ANALYSIS
FOR THE
AIRPORT GATEWAY SPECIFIC PLAN PROJECT
IN THE CITIES OF SAN BERNARDINO AND HIGHLAND

INTRODUCTION

Senate Bill (SB) 743 was approved by the California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular "level of service" (LOS) for evaluating transportation projects. OPR has updated guidelines for CEQA and written a technical advisory for evaluating transportation impacts in CEQA and set a deadline of July 1, 2020 for local agencies to update their CEQA transportation procedures. OPR has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. The City of San Bernardino's Traffic Impact Analysis Guidelines (August 2020) provides VMT methodology and screening for determining a project significant transportation impact under the CEQA process within the City's jurisdiction. The City of Highland refers to the San Bernardino County Transportation Authority (SBCTA) SB 743 Vehicle Miles Traveled Implementation Study (SBCTA Guidelines; February 2020) for both VMT methodology and screening.

This technical memorandum was prepared to document the VMT analysis for the Airport Gateway Specific Plan project following the City of San Bernardino Guidelines and SBCTA Guidelines.

PROJECT OVERVIEW

The Airport Gateway Specific Plan (AGSP) area covers approximately 679.2 acres, located immediately north of the San Bernardino International Airport (SBIA). The Specific Plan area is bounded generally by 6th Street and Highland Creek on the north, 3rd Street and the SBIA on the south, State Route 210 (SR-210) on the east, and Tippecanoe Avenue on the west. North of the Specific Plan area (on the north side of 6th Street) is bordered by a mix of low- and medium-density residential uses and vacant parcels, as well as several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park and the Highland Branch Library.

The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194.2 acres). The Project site is shown in its regional setting on Figure 1. The Specific Plan area is depicted on Figure 2.

The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area.

The AGSP would replace the existing uses within the Specific Plan area with approximately 9.2 million square feet of Industrial Mixed Uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail/hotel uses. Development of the Specific Plan area will be accomplished over time, as market conditions allow, and as developers are successful in assembling individual parcels into parcels large enough for the allowed uses.

Consistent with the Traffic Impact Analysis (TIA) prepared for the project, the project is estimated to generate 31,435 passenger car trips and 3,171 truck trips on a daily basis.

VEHICLE MILES TRAVELED SCREENING

This section documents Vehicle Miles Traveled (VMT)/SB 743 considerations for the project. Both the City of San Bernardino Guidelines and SBCTA Guidelines provide details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed level analysis. Screening thresholds are broken into the following three steps:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

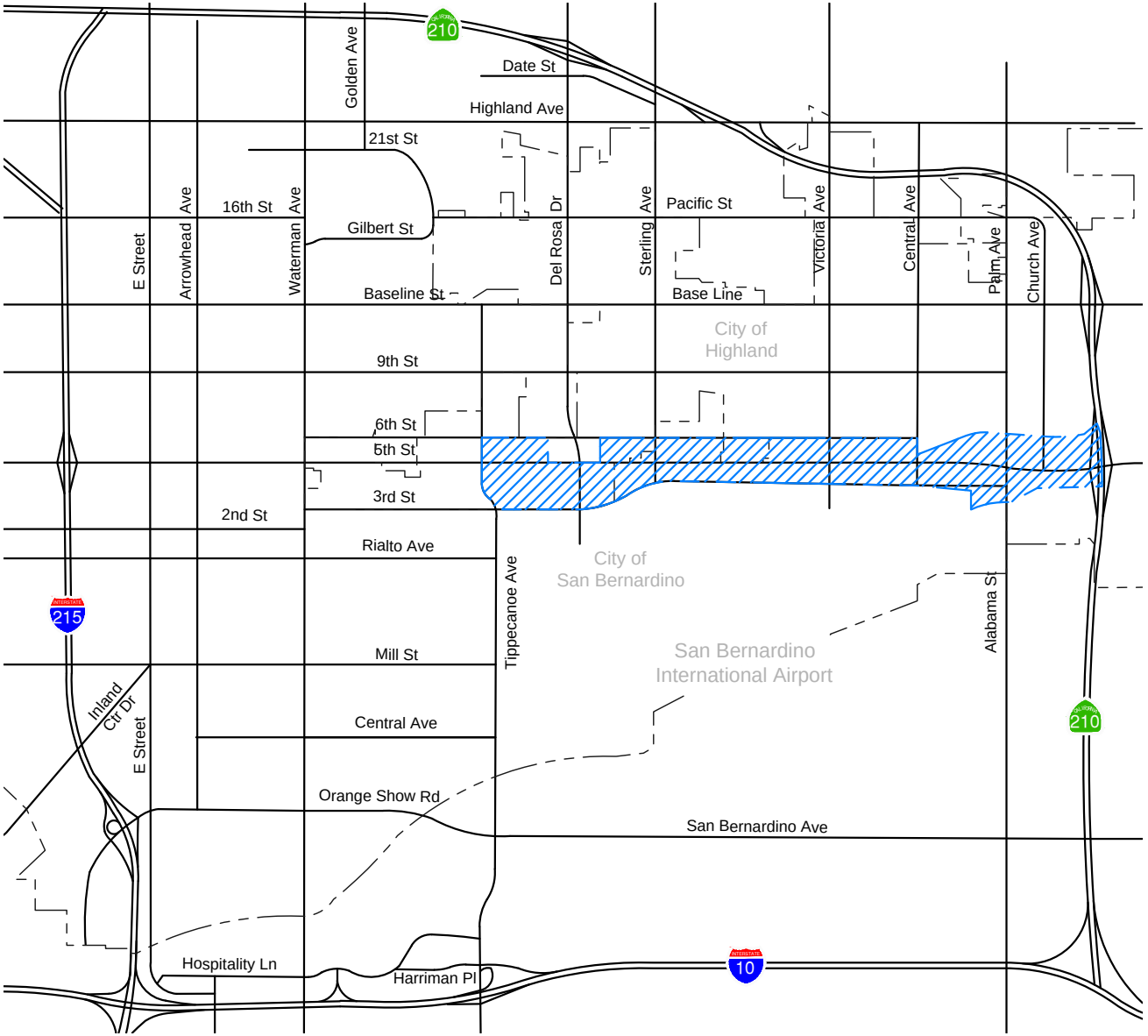
A land use project needs to only meet one of the above screening thresholds to be presumed to result in a less-than-significant impact under CEQA pursuant to SB 743.

Transit Priority Area (TPA) Screening

As described in the City of San Bernardino and SBCTA Guidelines, projects located within a half mile from an existing major transit stop or within half of a mile from an existing stop along a high-quality transit corridor can be screened out. Based on the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, the project is not located in a Transit Priority Area (TPA). The TPA screening criteria is not met.

Low VMT Area Screening

The project is located in multiple Traffic Analysis Zones (TAZ). Some TAZs are in a low VMT area, while others are not. Since the entirety of the Specific Plan area is not within a low VMT area, the Low VMT Area screening threshold is not met.



NOT TO SCALE

LEGEND:

= Specific Plan Area

= City Boundaries

FIGURE 1
VICINITY MAP

Kimley»Horn

NOT TO SCALE

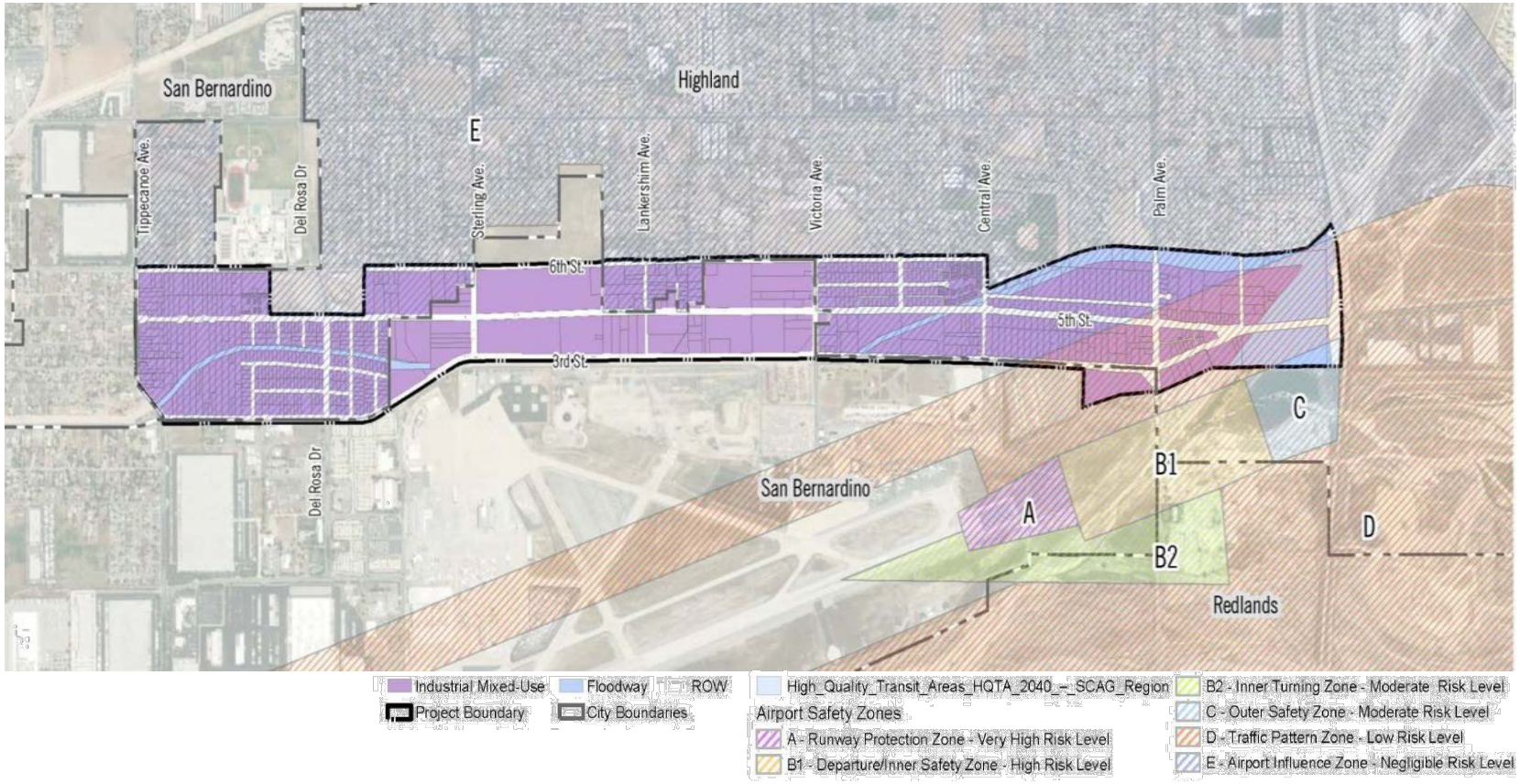


FIGURE 2
SPECIFIC PLAN AREA

Project Type Screening

The City of San Bernardino and SBCTA Guidelines identify that Project types falling under the screening criteria includes the following:

- Local-serving retail less than 50,000 square feet
- Local-serving K-12 schools
- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Local serving hotels (e.g. non-destination hotels)
- Student housing projects on or adjacent college campuses
- Local-serving assembly uses, Community Institutions
- Local serving community colleges
- Affordable or supportive housing, Assisted living facilities, Senior housing
- Projects generating less than 110 daily vehicle trips

The Project Type Screening criteria for this project is not met except for the retail uses within the Specific Plan which could be considered local serving.

VMT THRESHOLDS

City of San Bernardino

The City of San Bernardino Traffic Impact Analysis Guidelines (August 2020) recommends VMT thresholds set to the City of San Bernardino General Plan Buildout VMT per service population.

A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

1. The baseline project-generated VMT per service population exceeds the City of San Bernardino General Plan Buildout VMT per service population, or
2. The cumulative project-generated VMT per service population exceeds the City of San Bernardino General Plan Buildout VMT per service population

City of Highland

The SBCTA SB 743 VMT Implementation Study (February 2020) recommends VMT thresholds set to the baseline County of San Bernardino VMT per service population.

A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

1. The baseline project-generated VMT per service population exceeds the baseline County of San Bernardino VMT per service population, or
2. The cumulative project-generated VMT per service population exceeds the baseline County of San Bernardino VMT per service population.

A significant cumulative impact would occur if the project is determined to be inconsistent with the RTP/SCS and causes total daily VMT within the City to be higher than the no project alternative under cumulative conditions. As the Project is consistent with both the City of San Bernardino and City of Highland's General Plan Land Use and Zoning, the baseline project-generated VMT per service population for has been considered for this analysis.

As the project does not satisfy VMT screening criteria, a VMT analysis has been conducted for the project based on the San Bernardino County Transportation Analysis Model (SBTAM), consistent with the City of San Bernardino and SBCTA Guidelines.

For purposes of this VMT assessment, the project's VMT per service population (SP) has been compared to the countywide average VMT and City of San Bernardino General Plan (GP) Buildout VMT, based on data provided by SBCTA. As a conservative approach, the lower VMT threshold was applied, which in this case, would be the City of San Bernardino GP Buildout VMT. Table 1 shows the calculated VMT thresholds for VMT per SP:

TABLE 1: VMT THRESHOLDS

Threshold Option	Countywide Average	City of San Bernardino GP Buildout	Threshold
VMT per SP	32.7	31.6	31.6

VMT ANALYSIS

A logical way to evaluate the type of land uses within the Specific Plan area is to consider the major trip purposes of the land uses in terms of their trip length and frequency. Given the description, three types of trips were broadly considered for this Specific Plan area given its context: (1) employee commute trips; (2) other trips related to the functioning of businesses and/or their employees and (3) truck trips related to shipping activities. The following discussion is provided regarding these three broad trip types.

Employee commute trips. These are the primary automobile trips associated with employment generating uses such as within the proposed Specific Plan. This Specific Plan is expected to provide additional jobs and some related trips to the area. The efficiency of VMT associated with employee commute trips has been assessed based on SBTAM, consistent with the City of San Bernardino and SBCTA guidelines.

Other trips. These are often the smallest number and shortest distance of trips for a Specific Plan area like this and include a broad range of trip types, such as, employee lunches off-site, maintenance teams for on-site infrastructure, office supply deliveries, customer trips associated with the retail uses, etc. As such their impact to the overall VMT of the site is likely minimal. As such it is not likely that they are impactful to the local transportation system and are secondary to the other two trip types discussed. The efficiency of VMT associated with other trips has also been assessed based on SBTAM, consistent with the adopted City of San Bernardino and SBCTA guidelines.

Truck trips related to shipping activities. CEQA Guidelines Section 15064.3, subdivision (a) states "For the purposes of this section 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." The OPR's 2018 Technical Advisory indicates that, although heavy vehicle traffic can be included for analysis convenience, the provided analysis requirements are specific to passenger-vehicles and light duty trucks. While it may be appropriate to consider heavy vehicle traffic if directed by the lead agency, it is generally understood that Interstate commerce and related heavy vehicle traffic are regulated by the federal government as it relates to commerce. Irrespective of this and considering that the end-users within the Specific Plan are unknown at this time (so the nature of the business enterprises and its probable origins and destinations are unknown), it is reasonable to assume that the ultimate end user will select this location, at least in part, as to how it effects their transportation costs. Most often businesses who have shipping as a significant part of their operations are

sensitive to transportation costs and their relative proximity to customers and suppliers. Accordingly, it is reasonable to assume that warehouses are often located in a manner to reduce VMT given that it is in the interest of the business. It is also recognized that the project would generate Heavy Duty Truck (HDT) traffic and has been considered in this VMT assessment.

PROJECT VMT

The calculation of vehicle miles traveled has two components – the total number of trips generated and the average trip length of each vehicle. SBTAM is a useful tool to estimate VMT as it considers the interaction between different land uses based on socio-economic data such as population, households, and employment. Project VMT was calculated using the most current version of SBTAM. Adjustments in socio-economic data (households, population, and employment) were made to the appropriate traffic analysis zone (TAZ) within the SBTAM model to reflect the project's proposed land uses.

Project VMT per Service Population (SP)

Service population is defined as the sum of population and employment. Since the Project does not have any residential component, the Project SP consists of employees only. The VMT per SP is the total VMT (including all trip purposes) divided by the number of workers derived from the SBTAM model. The VMT per SP is used to measure efficiency of VMT generated by all trip purposes. The Project VMT per SP calculated based on SBTAM is 35.0.

Heavy Truck VMT

The average trip length for heavy trucks were based on the data provided in Forecasting Metropolitan Commercial and Freight Travel (NCHRP Synthesis 384, Transportation Research Board, 2008) document. The document cites average internal trip lengths of 5.92 miles for light truck, 13.06 for medium truck, and 24.11 for heavy trucks. As a conservative measure, a trip length of 25 miles has been utilized for all trucks multiplied by the daily truck trips (3,171) estimated in the TIA based on Institute of Transportation Engineer (ITE) trip rates, resulting in a heavy truck daily VMT of 79,275.

Potential Impacts

As shown in Table 2, the project's VMT per SP would exceed the threshold. As such, the project's transportation impact is potentially significant based on the City of San Bernardino and SBCTA recommended thresholds.

TABLE 2: VMT IMPACT EVALUATION

Threshold Option	Threshold	Project VMT	Change in VMT	Potentially Significant?
VMT per SP	31.6	35.0	+3.4 (10.8%)	Yes

Mitigation

As indicated in the City of San Bernardino and SBCTA Guidelines, the following choices are available to the applicant:

- Modify the project's built environment characteristics to reduce VMT generated by the project.
- Implement Transportation Demand Management (TDM) measures to reduce VMT generated by the project.
- Participate in a VMT fee program and/or VMT mitigation exchange/banking program (if they exist) to reduce VMT from the project or other land uses to achieve acceptable levels.

Transportation demand management (TDM) strategies have been evaluated for reducing VMT impacts determined to be potentially significant. Given the jurisdiction's suburban land use context, the following key strategies may be considered for the project.[1]

- Provide pedestrian network improvements (potential VMT reduction 0.5% - 5.7%)
- Provide traffic calming measures (potential VMT reduction 0% - 1.7%)
- Implement car-sharing program (potential VMT reduction 0.3% - 1.6%)
- Increase transit service frequency/speed (potential VMT reduction 0.3% - 6.3%)
- Encourage telecommuting and alternative work schedules (potential VMT reduction 0.2% - 4.5%)
- Provide ride-share programs (potential VMT reduction 2.5% - 8.3%)

The project proposes pedestrian sidewalks along roadways within the Specific Plan area. The project site is accessible by transit via OmniTrans Bus Route 15, which has stops at the following locations within or near the Specific Plan area:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street
- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street
- Palm Avenue at 5th Street

[1] Source: SB 743 Implementation Mitigation and TDM Strategy Assessment, Attachment B (Fehr & Peers, November 2019) prepared for San Bernardino County Transportation Authority (SBCTA).

The effectiveness of the above-noted TDM measures would be dependent on the ultimate building tenant(s), which are unknown at this time. Beyond project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the project is characteristically suburban. Of itself, the project's suburban context acts to reduce the range of feasible TDM measures and their potential effectiveness.

Based on available research, for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Due to limitations of project-level approaches to reducing VMT, the City or region may consider larger mitigation programs such as VMT mitigation banks and exchanges. VMT mitigation banks and exchanges have not yet been developed or tested. SBCTA is undertaking a study to evaluate the feasibility of a VMT mitigation bank or exchange to assist lead agencies in implementing SB 743.

CONCLUSION

The project's transportation impact based on VMT is potentially significant based on City of San Bernardino and SBCTA recommended thresholds. As the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured, the project's VMT impact is therefore considered significant and unavoidable.

APPENDIX 12

AB52 Letters

INLAND VALLEY DEVELOPMENT AGENCY
SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY

June 10, 2022

Mr. Wayne Walker, Co-Chairperson
Serrano Nation of Mission Indians
P. O. Box 343
Patton, CA 92369

Re: AB 52 Consultation

Dear Mr. Walker:

The Inland Valley Development Agency (IVDA or Agency) received the Serrano Nation of Mission Indians' (Serrano Nation) request for formal notification of proposed projects within the Serrano Nations' geographic area of traditional and cultural affiliation in accordance with AB 52. IVDA is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area. With the cities of Highland and San Bernardino the IVDA is coordinating the preparation of a new specific plan, the Airport Gateway Specific Plan (AGSP). IVDA will oversee the preparation of an environmental impact report (EIR) for the AGSP. A project description for the AGSP is attached for your information and review. Also provided with this document is a copy of the cultural resource evaluation for the AGSP project area.

In accordance with Section 21080.3.1 (d) of the Statute, please consider this IVDA's formal notification that it intends to oversee compliance with the California Environmental Quality Act (CEQA) for the referenced project. It is our understanding that the Serrano Nation has 30 days to request consultation regarding this project. The IVDA point of contact is Ms. Myriam Beltran. She can be contacted by phone at (909) 382-4100 or by e-mail at mbeltran@sbdairport.com. However, we would appreciate formal notification of a request for consultation by letter or e-mail, which should be sent to the IVDA address provided at the top of this letter. If we do not receive notification within the 30-day period, we will assume that the Serrano Nation has no tribal cultural resource concerns for the AGSP project and we will proceed with the public review of the EIR when completed in accordance with CEQA standard procedures.

Should you have any questions, please do not hesitate to contact Ms. Beltran.

Respectfully,

INLAND VALLEY DEVLEOPMENT AGENCY

Mike Burrows
Chief Executive Officer

Attachments
Cc: Tom Dodson

INLAND VALLEY DEVELOPMENT AGENCY
SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY

June 10, 2022

Ms. Jessica Mauck
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

Re: AB 52 Consultation

Dear Ms. Mauck:

The Inland Valley Development Agency (IVDA or Agency) received the San Manuel Band of Mission Indians' (San Manuel) request for formal notification of proposed projects within the San Manuel's geographic area of traditional and cultural affiliation in accordance with AB 52. IVDA is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area. With the cities of Highland and San Bernardino the IVDA is coordinating the preparation of a new specific plan, the Airport Gateway Specific Plan (AGSP). IVDA will oversee the preparation of an environmental impact report (EIR) for the AGSP. A project description for the AGSP is attached for your information and review. Also provided with this document is a copy of the cultural resource evaluation for the AGSP project area.

In accordance with Section 21080.3.1 (d) of the Statute, please consider this IVDA's formal notification that it intends to oversee compliance with the California Environmental Quality Act (CEQA) for the referenced project. It is our understanding that the San Manuel has 30 days to request consultation regarding this project. The IVDA point of contact is Ms. Myriam Beltran. She can be contacted by phone at (909) 382-4100 or by e-mail at mbeltran@sbdairport.com. However, we would appreciate formal notification of a request for consultation by letter or e-mail, which should be sent to the IVDA address provided at the top of this letter. If we do not receive notification within the 30-day period, we will assume that the San Manuel has no tribal cultural resource concerns for the AGSP project and we will proceed with the public review of the EIR when completed in accordance with CEQA standard procedures.

Should you have any questions, please do not hesitate to contact Ms. Beltran.

Respectfully,

INLAND VALLEY DEVLEOPMENT AGENCY

Mike Burrows
Chief Executive Officer

Attachments
Cc: Tom Dodson

INLAND VALLEY DEVELOPMENT AGENCY
SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY

June 10, 2022

Mr. Raymond Huaute
Cultural Resources Specialist
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Re: AB 52 Consultation

Dear Mr. Huaute:

The Inland Valley Development Agency (IVDA or Agency) received the Morongo Band of Mission Indians' (Morongo Band) request for formal notification of proposed projects within the Band's geographic area of traditional and cultural affiliation in accordance with AB 52. IVDA is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area. With the cities of Highland and San Bernardino the IVDA is coordinating the preparation of a new specific plan, the Airport Gateway Specific Plan (AGSP). IVDA will oversee the preparation of an environmental impact report (EIR) for the AGSP. A project description for the AGSP is attached for your information and review. Also provided with this document is a copy of the cultural resource evaluation for the AGSP project area.

In accordance with Section 21080.3.1 (d) of the Statute, please consider this IVDA's formal notification that it intends to oversee compliance with the California Environmental Quality Act (CEQA) for the referenced project. It is our understanding that the Morongo Band has 30 days to request consultation regarding this project. The IVDA point of contact is Ms. Myriam Beltran. She can be contacted by phone at (909) 382-4100 or by e-mail at mbeltran@sbdairport.com. However, we would appreciate formal notification of a request for consultation by letter or e-mail, which should be sent to the IVDA address provided at the top of this letter. If we do not receive notification within the 30-day period, we will assume that the Morongo Band has no tribal cultural resource concerns for the AGSP project and we will proceed with the public review of the EIR when completed in accordance with CEQA standard procedures.

Should you have any questions, please do not hesitate to contact Ms. Beltran.

Respectfully,

INLAND VALLEY DEVLEOPMENT AGENCY

Mike Burrows
Chief Executive Officer

Attachments
Cc: Tom Dodson

INLAND VALLEY DEVELOPMENT AGENCY
SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY

June 10, 2022

Mr. Andrew Salas, Chairman
Gabrieleño Band of Mission Indians - Kizh Nation
P.O. Box 393
Covina, CA 91723

Re: AB 52 Consultation

Dear Mr. Salas:

The Inland Valley Development Agency (IVDA or Agency) received the Kizh Nation's request for formal notification of proposed projects within the Tribe's geographic area of traditional and cultural affiliation in accordance with AB 52. IVDA is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area. With the cities of Highland and San Bernardino the IVDA is coordinating the preparation of a new specific plan, the Airport Gateway Specific Plan (AGSP). IVDA will oversee the preparation of an environmental impact report (EIR) for the AGSP. A project description for the AGSP is attached for your information and review. Also provided with this document is a copy of the cultural resource evaluation for the AGSP project area.

In accordance with Section 21080.3.1 (d), please consider this IVDA's formal notification that it intends to oversee compliance with the California Environmental Quality Act (CEQA) for the referenced project. It is our understanding that the Kizh Nation has 30 days to request consultation regarding this project. The IVDA point of contact is Ms. Myriam Beltran. She can be contacted by phone at (909) 382-4100 or by e-mail at mbeltran@sbdairport.com. However, we would appreciate formal notification of a request for consultation by letter or e-mail, which should be sent to the IVDA address provided at the top of this letter. If we do not receive notification within the 30-day period, we will assume that the Kizh Nation has no tribal cultural resource concerns for the AGSP project and we will proceed with the public review of the EIR when completed in accordance with CEQA standard procedures.

Should you have any questions, please do not hesitate to contact Ms. Beltran.

Respectfully,

INLAND VALLEY DEVLEOPMENT AGENCY

Mike Burrows
Chief Executive Officer

Attachments
Cc: Tom Dodson