

210 BAYPOINTE PARKWAY RESIDENTIAL PROJECT AIR QUALITY ASSESSMENT

San José, California

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Introduction

This report addresses the potential air quality and health risk impacts associated with the proposed residential development located at 210 Baypointe Parkway in San José, California. Air quality impacts from this project would be associated with the demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutant emissions were predicted using appropriate computer models. In addition, the potential health risk impacts associated with construction and operation of the project and the impact of existing toxic air contaminant (TAC) sources affecting the nearby and proposed sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).¹

Project Description

The 4.3-acre project site is currently developed with an existing industrial building and associated surface parking lot. The project proposes to demolish the existing use and construct a new mixed density community, consisting of six condominium buildings and one apartment building. The three-story for-sale condominiums would have 42-units, totaling 99,582 square feet (sf). The seven-story apartment building would consist of 287-units, with a total of 282,280-sf of residential space, 3,600-sf of work-from-home space, and 60,365-sf of general building including amenities, patios, etc. The project also proposes a 127,800-sf parking garage with a total of 343 parking spaces in addition to eight uncovered parking spaces totaling 1,440-sf. Construction is expected to begin in January 2025 and will be completed by December 2025.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys downwind of existing air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both

¹ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

TACs are a broad class of compounds known to cause morbidity or mortality, often because they cause cancer. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. Health risks from TACs are estimated using the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines, which were published in February of 2015.² See *Attachment 1* for a detailed description of the health risk modeling methodology used in this assessment.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, people over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are the multi-family residences to the east, south, and west, with single-family residences at further distances to the west and northwest. This project would introduce new sensitive receptors (i.e., residents) to the area.

² OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. However, California also has the ability to set motor vehicle emission standards and standards for fuel, as long as they are the same or more stringent than the nationwide standards.

In the past decade the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_x and particulate matter (PM_{2.5}) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_x emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.³

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. Current standards have reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500 parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from about 3,000 ppmw to 15 ppmw). The low sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel (ULSD), is currently required for use by all diesel vehicles in the U.S.

All of the above federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

State Regulations

To address the issue of diesel emissions in the state, CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*.⁴ In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

³ USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

⁴ California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and PM_{2.5} emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

CARB has also adopted and implemented regulations to reduce DPM and NOx emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce DPM and NOx exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent federal off-road equipment engine emission limits for new vehicles, will significantly reduce emissions of DPM and NOx.

Bay Area Air Quality Management District (BAAQMD)

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the NAAQS and CAAQS. The District also has permit authority over most types of stationary equipment utilized for the proposed project. The BAAQMD is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.⁵ The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program is implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses is used to focus emission reduction measures in areas with high TAC exposures and high density of sensitive populations.

⁵ See BAAQMD: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>, accessed 2/18/2021.

Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. The BAAQMD has identified six communities as impacted as part of the CARE program: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco.

Additionally, overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.⁶ The project site is not located in the San José CARE area or within an overburdened area as identified by CalEnviroScreen as the Project site is scored at the 45th percentile.⁷

The BAAQMD California Environmental Quality Act (*CEQA*) *Air Quality Guidelines*⁸ were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for TACs, odors, and GHG emissions.

San José Envision 2040 General Plan

The San José Envision 2040 General Plan includes goals, policies, and actions to reduce exposure of the City's sensitive population to exposure of air pollution and toxic air contaminants or TACs. The following goals, policies, and actions are applicable to the proposed project and this assessment:

Applicable Goals – Air Pollutant Emission Reduction

Goal MS-10 Minimize emissions from new development.

Applicable Policies – Air Pollutant Emission Reduction

- MS-10.1 Assess projected air emissions from new development in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.
- MS-10.2 Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.
- MS-10.3 Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.

⁶ See BAAQMD: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofoverburdenedcommunities-pdf.pdf?la=en, accessed 10/1/2021.

⁷ OEHAA, CalEnviroScreen 4.0 Indicator Maps <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

⁸ Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

- MS-10.5 In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.
- MS-10.7 Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.
- MS-10.11 Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.
- MS-10.13 As a part of City of San José Sustainable City efforts, educate the public about air polluting household consumer products and activities that generate air pollution. Increase public awareness about the alternative products and activities that reduce air pollutant emissions.

Applicable Goals – Toxic Air Contaminants

- Goal MS-11 Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Applicable Policies – Toxic Air Contaminants

- MS-11.1 Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.
- MS-11.2 For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.
- MS-11.4 Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.
- MS-11.5 Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

Actions – Toxic Air Contaminants

- MS-11.6 Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of TACs and PM_{2.5}, emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate.
- MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.
- MS-11.8 For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

Applicable Goals – Construction Air Emissions

Goal MS-13 Minimize air pollutant emissions during demolition and construction activities.

Applicable Policies – Construction Air Emissions

- MS-13.1 Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Applicable Actions – Construction Air Emissions

- MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 *CEQA Air Quality Guidelines*. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court proceedings and were mostly upheld. BAAQMD updated its thresholds in the *CEQA Air Quality Guidelines* in 2017. The latest BAAQMD significance thresholds used in this analysis are summarized in Table 1. Community health risks are considered significant if they exceed these thresholds.

Table 1. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (Exhaust)	82	15
PM _{2.5}	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	None	
Health Risks and Hazards	Single Sources Within 1,000-foot Zone of Influence	Combined Sources (Cumulative from all sources within 1000-foot zone of influence)	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental annual PM _{2.5}	0.3 µg/m ³	0.8 µg/m ³	

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM₁₀ = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (μm) or less, PM_{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5 μm or less.

Source: Bay Area Air Quality Management District, 2017

AIR QUALITY IMPACTS AND MITIGATION MEASURES

Impact AIR-1: **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

The Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the NAAQS and the CAAQS. The area is also considered non-attainment for PM₁₀ under the CAAQS, but not the NAAQS. The area has attained both State and Federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O₃, PM_{2.5} and PM₁₀, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. The O₃ precursor pollutant thresholds are for ROG and NOx, while PM₁₀, and PM_{2.5} have specific thresholds. The thresholds apply to both construction period emissions and operational period emissions.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types, size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2021 (EMFAC2021) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.⁹ The CalEEMod model output along with construction inputs are included in *Attachment 2* and EMFAC2021 vehicle emissions modeling outputs are included in *Attachment 3*.

CalEEMod Inputs

Land Use Inputs

The proposed project land uses were entered into CalEEMod as described in Table 2.

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Condo/Townhouse	42	Dwelling Unit	99,582	2.40
Apartments Mid Rise	287	Dwelling Unit	346,245	
Enclosed Parking with Elevator	343	Parking Spaces	127,800	
Parking Lot	8	Parking Spaces	1,440	

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment list and schedule, were based on information provided by the project

⁹ See CARB's EMFAC2021 Emissions Inventory at <https://arb.ca.gov/emfac/emissions-inventory>

applicant. The applicant also provided the demolition volume, soil hauling volume, and total number of concrete truck trips.

The project construction equipment worksheets provided by the applicant included the schedule for each phase of construction (included in *Attachment 2*). Within each construction phase, the quantity of equipment to be used along with the average use hours per day and total number of workdays was provided by the applicant. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase. The construction schedules assumed that the earliest possible start date would be January 2025 and the project would be built out over a period of approximately 12 months or 261 construction workdays. The earliest year of operation was assumed to be 2026.

Construction Truck Traffic Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the estimate of demolition material to be exported, soil imported and/or exported to the site, and the estimate of concrete and asphalt used for construction. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips for demolition and grading were developed by CalEEMod using the provided demolition and grading volumes, assuming each truck could carry 10 tons per load. The number of concrete and asphalt total round haul trips were estimated for the project and converted to total one-way trips, assuming two trips per delivery.

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2017 motor vehicle emission factor model. This model has been superseded by the EMFAC2021 model. However, CalEEMod has not been updated to include EMFAC2021. The construction traffic information was combined with EMFAC2021 motor vehicle emissions factors. EMFAC2021 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod defaults, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1 and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trips, including concrete trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling (demolition material export and soil import/export). Since CalEEMod does not appear to specifically address concrete or asphalt truck trips, these were treated as vendor travel distances. Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On-road emission rates from the year 2025 for Santa Clara County were used. Table 3 provides the traffic inputs that were combined with EMFAC2021 emission rates to compute vehicle emissions.

Table 3. Construction Traffic Data Used for EMFAC2021 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker ¹	Total Vendor ¹	Total Haul ²	
Vehicle mix ¹	50% LDA 25% LDT1 25% LDT2	50% MHDT 50% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0 (Demo/Soil) 7.3 (Cement/Asphalt)	CalEEMod default distance with 5-min truck idle time.
Demolition	750	-	345	72,000-sf existing site demo and 90-tons pavement demo. Default worker trips.
Site Preparation	50	-	-	CalEEMod default worker trips.
Grading	270	-	575	1,100-cy soil import, 3,500-cy soil export. CalEEMod default worker trips.
Trenching	480	-	-	CalEEMod default worker trips.
Fine Grade, Rock and Pave	225	-	-	CalEEMod default worker trips.
Building - Foundation	5,238	1,008	170	85 concrete truck roundtrips. CalEEMod default worker trips.
Building - Exterior	52,962	10,192	-	CalEEMod default worker and vendor trips.
Building – Interior/Architectural Coating	10,556	-	-	CalEEMod default worker trips.
Building Construction	52,089	10,024	4,020	16,750-cy of concrete. CalEEMod default worker and vendor trips.
Architectural Coating	6,960	-	-	CalEEMod default worker trips.
Paving	450	-	31	130 asphalt truck deliveries. CalEEMod default worker trips.

Notes: ¹ Based on 2025 EMFAC2021 light-duty vehicle fleet mix for Santa Clara County.
² Includes demolition and grading trips estimated by CalEEMod based on amount of material to be removed.
Concrete and asphalt trips estimated based on data provided by the applicant.

Summary of Computed Construction Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 4 shows the unmitigated annualized average daily construction emissions of ROG, NOx, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. As indicated in Table 4, predicted unmitigated annualized project construction emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 4. Construction Period Emissions - Unmitigated

Year	ROG	NOx	PM ₁₀ Exhaust	PM _{2.5} Exhaust
<i>Construction Emissions Per Year (Tons)</i>				
2025	6.88	3.69	0.18	0.14
<i>Average Daily Construction Emissions Per Year (pounds/day)</i>				
2025 (261 construction workdays)	52.75	28.28	1.39	1.11
BAAQMD Thresholds (pounds per day)	54 lbs./day	54 lbs./day	82 lbs./day	54 lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. San Jose General Policy MS-10.1 specifies that projects should assess projected air emissions from new development in conformance with the BAAQMD CEQA Guidelines, relative to state and federal standards and identify and implement feasible air emission reduction measures. Thus, San Jose General Policy MS-10.1 requires construction projects implement BAAQMD-Recommended Standard Measures to control PM₁₀ and PM_{2.5} emissions. *Mitigation Measure AQ-1 would implement BAAQMD's standard measures.*

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Standard Measures to Control Particulate Matter Emissions during Construction.

Measures to reduce DPM and fugitive dust (i.e., PM_{2.5}) emissions from construction are recommended to reduce fugitive dust emissions and ensure that health impacts to nearby sensitive receptors are minimized. During any construction period ground disturbance, the applicant shall ensure that the project contractor implements both basic and additional measures to control dust and exhaust. Implementation of the dust control measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following enhanced best management practices:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Mitigation Measure AQ-1

Mitigation Measure AQ-1 represents standard mitigation measures that would achieve greater than a 50 percent reduction in on-site fugitive PM_{2.5} emissions. The measures above are consistent with BAAQMD-recommended “best management practices” for reducing fugitive particulate matter that are contained in the BAAQMD CEQA Air Quality Guidelines.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents. Evaporative ROG emissions from architectural coatings and maintenance products (classified as consumer products) are also associated with these types of projects. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

CalEEMod Inputs

Land Uses

The project land uses were input to CalEEMod as described above for the construction period modeling.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest year of full operation

would be 2026 if construction begins in 2025. Emissions associated with build-out later than 2026 would be lower.

Traffic Information

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate provided by the traffic consultant was entered into the model.¹⁰ The project would produce approximately 1,585 daily trips. When accounting for the *Location-Based Reduction and Project-Specific Reduction*, the project would produce 1,283 net daily trips. The daily trip generation was calculated using ITE trip generation rates, the size of the project land uses, and the adjusted total automobile trips after reductions. The Saturday and Sunday trip rates were derived by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate with the project-specific daily weekday trip rate. The default trip lengths and trip types specified by CalEEMod were used.

EMFAC2021 Adjustment

The vehicle emissions factors and fleet mix used in CalEEMod are based on EMFAC2017, which is an older CARB emissions model for on-road mobile sources. Since the release of CalEEMod Version 2020.4.0, a new emission factor model has been made available by CARB. EMFAC2021 became available for use in January 2021 and includes the latest data on California's car and truck fleets and travel activity. The CalEEMod default vehicle emission factors and fleet mix based on EMFAC2017 were updated using the emission rates and fleet mix from EMFAC2021. On road emission rates from 2026 Santa Clara County were used (See *Attachment 3*). More details about the updates in emissions calculation methodologies and data are available in the EMFAC2021 Technical Support Document.¹¹

Energy

CalEEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. An emission factor of 178 pounds of CO₂ per megawatt of electricity produced was entered into CalEEMod, which is based on San Jose Clean Energy's (SJCE) 2020 emissions rate.¹² It should be noted that per Climate Smart San Jose and San Jose's Greenhouse Gas Reduction Strategy, SJCE's goal is to provide 100-percent carbon-free electricity prior to 2030.¹³

CalEEMod includes the 2019 Title 24 Building Standards. However, the City of San José passed an ordinance in December 2020 that prohibits the use of natural gas infrastructure in new

¹⁰ Email Correspondence from Patrick Kallas, Project Manager, David J. Powers & Associates, Inc., November 11, 2022, *210BaypointeRes_TripGen_21Nov2022*.

¹¹ See CARB 2021: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac>

¹² San Jose Clean Energy Website, Standard GreenSource service. Web: <https://sanjosecleanenergy.org/commercial-rates/>

¹³ City of San José, 2020. "2030 Greenhouse Gas Reduction Strategy", August. Web: <https://www.sanjoseca.gov/home/showpublisheddocument/63667/637347412207870000>

residential, office, and most retail-type buildings.¹⁴ This ordinance applies to any new construction starting August 1, 2021. Natural gas use for the residential land use was set to zero and reassigned to electricity use in CalEEMod.

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water use were applied to the project. Wastewater treatment was estimated to be 100% aerobic conditions to represent City wastewater treatment plant conditions. The project site would not send wastewater to on-site septic tanks or facultative lagoons.

Summary of Computed Operational Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimated assuming 365 days of operation. Table 5 shows unmitigated net average daily operational emissions of ROG, NOx, total PM₁₀, and total PM_{2.5} during operation of the project. Operational period emissions would not exceed the BAAQMD significance thresholds.

Table 5. Operational Period Emissions

Scenario	ROG	NOx	PM ₁₀	PM _{2.5}
2026 Annual Project Operational Emissions (tons/year)	2.83	0.49	0.98	0.26
BAAQMD Thresholds (tons /year)	10 tons	10 tons	15 tons	10 tons
<i>Exceed Threshold?</i>	No	No	No	No
2026 Daily Project Operational Emissions (pounds/day) ¹	15.49	2.71	5.35	1.42
BAAQMD Thresholds (pounds/day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
<i>Exceed Threshold?</i>	No	No	No	No

Notes: ¹ Assumes 365-day operation.

Impact AIR-2: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased health risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity or by significantly exacerbating existing cumulative TAC impacts. This project would introduce new sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., mobile sources).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would not include the installation of any stationary TAC emissions sources (i.e., generators) but would generate some traffic consisting of mostly light-duty gasoline-powered vehicles, which would produce TAC and air pollutant emissions.

Project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. There are also several sources of existing TACs and localized air pollutants in the vicinity of the project. The impact of existing sources of TACs was

¹⁴ City of San José, 2020. “Expand Natural Gas Ban”, December. Web: <https://www.sanjoseca.gov/Home/Components/News/News/2210/4699>

assessed in terms of the cumulative risk which includes the project contribution; as well as the risk on the new sensitive receptors introduced by the project.

Health Risk Methodology for Construction and Operation

Health risk impacts were addressed by predicting increased cancer risk, the increase in annual PM_{2.5} concentrations, and by computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operation sources. These sources include on-site construction activity, construction truck hauling, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,¹⁵ with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

The project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. Unlike the increased maximum cancer risk, the annual PM_{2.5} concentration and HI values are not additive but based on the annual maximum values for the entirety of the project. The project maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.

The methodology for computing health risks impacts is contained in *Attachment 1*. This involved the calculation of TAC and PM_{2.5} emissions, dispersion modeling of these emissions, and computations of cancer risk and non-cancer health effects.

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations closest to the project would be present for extended periods of time (i.e., chronic exposures). This includes the existing residences surrounding the site, as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions. While there are additional sensitive receptors within 1,000 feet of the project site, the receptors chosen are adequate to identify maximum impacts from the project.

Community Health Risk from Project Construction

The primary health risk impact issues associated with construction emissions are cancer risk and exposure to PM_{2.5}. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and PM_{2.5}.¹⁶ This assessment included dispersion modeling to predict the offsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

¹⁵ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

¹⁶ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

Construction Emissions

The CalEEMod and EMFAC2021 models provided total annual PM₁₀ exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total DPM emissions from all construction stages estimated to be 0.13 tons (263 pounds). The on-road emissions are a result of haul truck travel, worker travel, and vendor deliveries during construction. A trip length of half a mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM_{2.5} dust emissions were calculated by CalEEMod and EMFAC2021 to be 0.02 tons (46 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and PM_{2.5} concentrations at sensitive receptors (i.e., residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.^{17,18} Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions.

Construction Sources

Combustion equipment DPM exhaust emissions were modeled as an array of point sources to reflect construction equipment and trucks operating at the site. These sources included nine-foot release heights (construction equipment exhaust stack height) that were placed at 23 feet (7 meter) intervals throughout the construction site. This resulted in 351 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area. The total DPM emissions were divided into each of the point sources that were spread throughout the project construction site. In addition, the following stack parameters were used: a vertical release, a stack diameter of 2.5 inches, an exhaust temperature of 918°F, and an exit velocity of 309 feet per second. Point source plume rise is calculated by the AERMOD dispersion model. Emissions from vehicle travel on- and off-site were also distributed among the point sources throughout the site. The array of point sources used for the modeling are shown in Figure 1.

For modeling fugitive PM_{2.5} emissions, a near-ground level release height of 7 feet (2 meters) was used for the area source. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and unloading (rear or bottom dumping), loaders and excavators moving and transferring soil and other materials, etc. All of these activities result in fugitive dust emissions at various heights at the point(s) of generation. Once generated, the dust plume will tend to rise as it moves downwind

¹⁷ BAAQMD, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May. Web: <https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en>

¹⁸ BAAQMD, 2020, *BAAQMD Health Risk Assessment Modeling Protocol*. December. Web: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en

across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Figure 1 shows the project construction site and receptors.

AERMOD Inputs and Meteorological Data

The modeling used a five-year meteorological data set (2013-2017) from the San José Airport prepared for use with the AERMOD model by the BAAQMD. Construction emissions were modeled as occurring Monday through Friday between 7:00 a.m. to 7:00 p.m. and Saturday between 8:00 a.m. to 5:00 p.m., when the majority of construction activity would occur according to the project applicant. Annual DPM and PM_{2.5} concentrations from construction activities during the 2025 period were calculated using the model. DPM and PM_{2.5} concentrations were calculated at nearby sensitive receptors. Receptor heights of 5 feet (1.5 meters), 15 feet (4.5 meters), 25 feet (7.6 meters), and 35 feet (10.7 meters) were used to represent the breathing height on the first through fourth floors of nearby single- and multi-family residences.¹⁹

Summary of Construction Health Risk Impacts

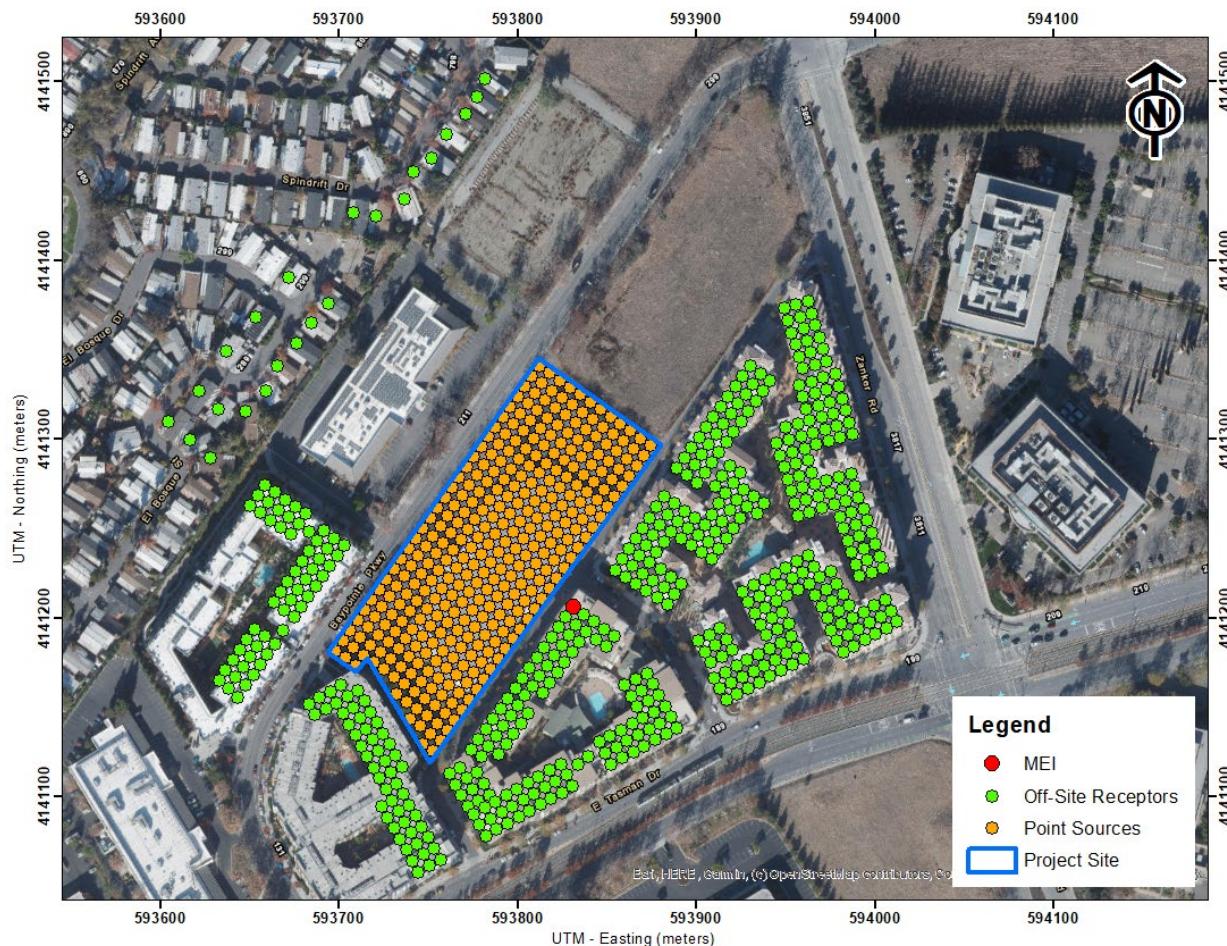
The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the OEHHA guidance for age sensitivity factors and exposure parameters as recommended by BAAQMD (*Attachment 1*). Non-cancer health hazards and maximum PM_{2.5} concentrations were also calculated and identified. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Third trimester, infant, child, and adult exposures were assumed to occur at all residences during the entire construction period.

The maximum modeled annual PM_{2.5} concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI value was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation DPM reference exposure level of 5 µg/m³.

The maximum modeled annual DPM and PM_{2.5} concentrations were identified at nearby sensitive receptors to find the MEIs. Results of this assessment indicated that the construction MEIs were located at the same location on two different levels. The MEIs were located at receptors in a multi-family building southwest of the project site, with the cancer risk MEI located on the third floor (25 feet above ground) and the PM_{2.5} concentration MEI located on the second floor (15 feet above ground). The location of the MEIs and nearby sensitive receptors are shown in Figure 1. Table 6 summarizes the maximum cancer risks, PM_{2.5} concentrations, and health hazard indexes for project related construction activities. *Attachment 4* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

¹⁹ Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0. May. Web: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en>

Figure 1. Locations of Project Construction Site, Off-Site Sensitive Receptors, and Maximum TAC Impact Locations (MEIs)



Health Risks from Project Operation

Stationary equipment that could emit substantial TACs (e.g., emergency generators) are not planned for this project. Diesel powered vehicles are the primary concern with local traffic-generated TAC impacts. Per BAAQMD recommended risks and methodology, a road with less than 10,000 total vehicle per day is considered a low-impact source of TACs.²⁰ This project would generate 1,585 daily trips or 1,283 net daily trips when taking into account the trip reductions.²¹ The project traffic would be dispersed on the roadway system with a majority of the trips being from light-duty vehicles (i.e., passenger automobiles), which is a fraction of 10,000 daily vehicles. In addition, projects with the potential to cause or contribute to increased cancer risk from traffic include those that have high numbers of diesel-powered on road trucks or use off-road diesel

²⁰ BAAQMD, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May. Web: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en>

²¹ Email Correspondence from Patrick Kallas, Project Manager, David J. Powers & Associates, Inc., November 11, 2022, *21BaypointeRes_TripGen_21Nov2022*.

equipment on site. Therefore, this is not a project of concern for mobile sources and emissions from project traffic are considered negligible and not included in the analysis.

Summary of Project-Related Health Risks at the Off-Site Project MEI

For this project, the sensitive receptors identified in Figure 1 as the construction MEIs are also the project MEIs. At this location, the MEIs would be exposed to emissions from 23 months of construction. The annual PM_{2.5} concentration and HI values are based on an annual maximum risk for the entirety of the project. As shown in Table 6, the unmitigated maximum cancer risks from construction activities at the MEI locations would exceed the BAAQMD single-source significance threshold. However, with the incorporation of the *Mitigation Measure AQ-1 and AQ-2*, the mitigated risk and hazard values would reduce emissions such that cancer risk caused by construction would no longer exceed the BAAQMD single-source significance thresholds. The unmitigated annual PM_{2.5} concentration and HI at the MEIs do not exceed its respective BAAQMD single-source significance thresholds.

Table 6. Construction Risk Impacts at the Off-Site Receptors

Source	Cancer Risk ¹ (per million)	Annual PM _{2.5} ¹ ($\mu\text{g}/\text{m}^3$)	Hazard Index
Project Construction	Unmitigated Mitigated ²	42.40 (infant) 7.37 (infant)	0.29 0.06
	BAAQMD Single-Source Threshold	10	1.0
<i>Exceed Threshold?</i>	Unmitigated Mitigated ²	Yes No	No No

Notes: ¹ Maximum cancer risk and PM_{2.5} concentration occur at the same receptor location on different levels.

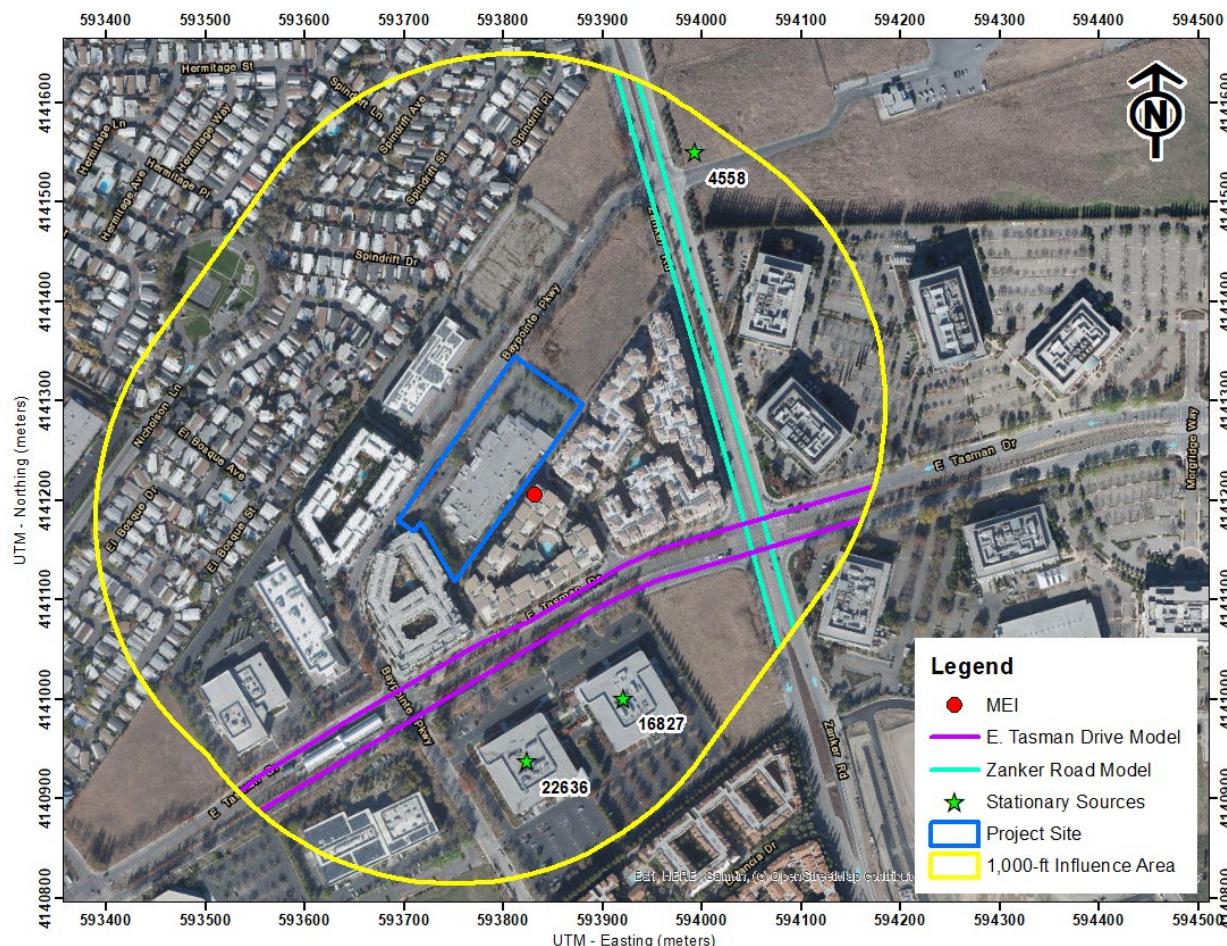
² Construction equipment with Tier 4 interim engines, electric cranes, compressors, and generators, and BMPs as Mitigation Measures.

Cumulative Health Risks of all TAC Sources at the Off-Site Project MEI

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of the project site (i.e., influence area). These sources include freeways or highways, busy surface streets, and stationary sources identified by BAAQMD.

A review of the project area using traffic data collected by Santa Clara County indicates traffic on E. Tasman Drive and Zanker Road exceeds 10,000 vehicles per day. Other nearby streets would have less than 10,000 vehicles per day and are considered negligible sources of TACs. Figure 2 shows the location of the sources affecting the MEIs. A review of BAAQMD's stationary source geographic information systems (GIS) map tool identified three existing stationary sources of TACs with the potential to affect the project MEIs. Health risk impacts from these sources upon the MEIs are reported in Table 7. Details of the modeling and community risk calculations are included in *Attachment 5*.

Figure 2. Project Site and Nearby TAC and PM_{2.5} Sources



Local Roadways – East Tasman Drive and Zanker Road

A refined analysis of potential health impacts from vehicle traffic on E. Tasman Drive and Zanker Road was conducted since the roadway was estimated to have average daily traffic (ADT) exceeding 10,000 vehicles. The refined analysis involved predicting emissions for the traffic volume and mix of vehicle types on the roadway near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks are then computed based on the modeled exposures. *Attachment 1* includes a description of how health risk impacts, including cancer risk are computed.

Emissions Rates

This analysis involved the development of DPM, organic TACs, and PM_{2.5} emissions for traffic on E. Tasman Drive and Zanker Road using the Caltrans version of the CARB EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, PM_{2.5} and total organic compounds (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for PM_{2.5}. PM_{2.5} emissions from all

vehicles were used, rather than just the PM_{2.5} fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce PM_{2.5}. Additionally, PM_{2.5} emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in the emissions estimate. DPM emissions are projected to decrease in the future as reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (Santa Clara County), type of road (major/collector), truck percentage for non-state highways in Santa Clara County (3.51 percent),²² traffic mix assigned by CT-EMFAC2017 for the county, year of analysis (2025 – construction start year), and season (annual).

To estimate TAC and PM_{2.5} emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the MEI, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2025 (project construction year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2017. Year 2025 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

The ADT for E. Tasman Drive and Zanker Road was based on AM and PM peak-hour background plus project traffic volumes for the nearby roadway provided by the project's traffic data.²³ The calculated ADT on E. Tasman Drive was 33,432 vehicles and on Zanker Road was 28,264 vehicles. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,²⁴ which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for the roadway. For all hours of the day, the average speed of 40 mph on E. Tasman Drive and 45 mph on Zanker Road was assumed for all vehicles based on posted speed limit signs.

Hourly emissions rates were developed for DPM, organic TACs, and PM_{2.5} along the applicable segments of E. Tasman Drive and Zanker Road within 1,000 feet of the project site. TAC and PM_{2.5} concentrations at the construction MEIs location were developed using these emissions rates with an air quality dispersion model (AERMOD). Maximum increased lifetime cancer risks and maximum annual PM_{2.5} concentrations for the construction MEIs receptor were then computed using modeled TAC and PM_{2.5} concentrations and BAAQMD methods and exposure parameters described in *Attachment 1*.

²² Bay Area Air Quality Management District, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May. Web: <https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en>

²³ Email Correspondence from Patrick Kallas, Project Manager, David J. Powers & Associates, Inc., November 11, 2022, *210 Baypointe Volumes for DJP*.

²⁴ The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2021 does not include Burden type output with hour by hour traffic volume information.

Dispersion Modeling

Dispersion modeling of TAC and PM_{2.5} emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the BAAQMD for this type of analysis.²⁵ TAC and PM_{2.5} emissions from traffic E. Tasman Drive and Zanker Road within 1,000 feet of the project site were evaluated. Vehicle traffic on the roadways was modeled using a series of volume sources along a line (line volume sources); with line segments used for travel on the roadways in both opposing directions. The same meteorological data and off-site sensitive receptors used in the previous construction site dispersion modeling scenario were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations. Annual TAC and PM_{2.5} concentrations using 2025 emissions from traffic on East Tasman Drive and Zanker Road were calculated using the model. Concentrations were calculated at the construction MEIs with receptor heights of 15 feet (4.5 meters) and 25 feet (7.6 meters) to represent the breathing heights on the second and third floors of residents in the multi-family residence.

Computed Cancer and Non-Cancer Health Impacts

The cancer risk, PM_{2.5} concentration, and HI impacts from E. Tasman Drive and Zanker Road on the off-site MEIs are shown in Table 7. Figure 2 shows the roadway links modeled and receptor locations where concentrations were calculated. Details of the emission calculations, dispersion modeling, and cancer risk calculations for the receptors with the maximum cancer risk from traffic on E. Tasman Drive and Zanker Road are provided in *Attachment 5*.

BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2020* GIS map website.²⁶ This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for new OEHHA guidance. Three sources were identified using this tool, two diesel generators and one generic source. However, data for the one generic stationary source (#4558) showed no minimal risks and was deemed to pose no risk. Therefore, it was not evaluated in the cumulative health risk impact. The BAAQMD GIS website provided screening risks and hazards for the remaining sources. Therefore, a stationary source information request was not required to be submitted to BAAQMD.

The screening risk and hazard levels provided by BAAQMD for the stationary sources were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines*. Health risk impacts from the stationary source upon the MEIs are reported in Table 7.

Summary of Cumulative Risks at the Project MEIs

Table 7 reports both the project and cumulative health risk impacts at the sensitive receptors most

²⁵ BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

²⁶ BAAQMD, Web:

<https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3>

affected by project construction (i.e., the MEIs). The project's unmitigated construction maximum cancer risk exceeds the BAAQMD single-source threshold. With the implementation of *Mitigation Measure AQ-1 and AQ-2*, the project's cancer risk would be lowered to a level below the single-source threshold. The annual PM_{2.5} concentration and HI, unmitigated and mitigated, do not exceed the single-source or cumulative-source thresholds.

Table 7. Cumulative Health Risk Impacts at the Project MEIs

Source		Cancer Risk ¹ (per million)	Annual PM _{2.5} ¹ ($\mu\text{g}/\text{m}^3$)	Hazard Index
Project Impacts				
Project Construction	Unmitigated	42.40 (infant)	0.29	0.05
	Mitigated	7.37 (infant)	0.06	0.01
BAAQMD Single-Source Threshold		10	0.3	1.0
<i>Exceed Threshold?</i>	Unmitigated	Yes	<i>No</i>	<i>No</i>
	Mitigated	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative Impacts				
E. Tasman Drive, ADT 33,432		0.90	0.08	<0.01
Zanker Road, ADT 28,264		0.27	0.02	<0.01
Netscout Systems (Facility ID #16827, Generator), MEI at 600 feet		0.81	<0.01	<0.01
LBA RIV-Company XXV LLC (Facility #22636, Generator), MEI at 700 feet		0.20	<0.01	<0.01
<i>Combined Sources</i>	Unmitigated	44.58	<0.41	<0.09
	Mitigated	9.55	<0.18	<0.05
BAAQMD Cumulative Source Threshold		100	0.8	10.0
<i>Exceed Threshold?</i>	Unmitigated	<i>No</i>	<i>No</i>	<i>No</i>
	Mitigated	<i>No</i>	<i>No</i>	<i>No</i>

Notes: ¹ Maximum cancer risk and PM_{2.5} concentration occur at the same receptor location on different levels.

Mitigation Measure AQ-2: Use construction equipment that has low diesel particulate matter exhaust emissions.

Implement a feasible plan to reduce DPM emissions by 80 percent such that increased cancer risk and annual PM_{2.5} concentrations from construction would be reduced below TAC significance levels as follows:

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for PM (PM₁₀ and PM_{2.5}), if feasible, otherwise,
 - a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 80 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).

- b. Use electric cranes and install electric power lines during early construction phases in order to use electric generators and compressors.
- 2. Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 80 percent or greater. Elements of the plan could include a combination of some of the following measures:
 - Implementation of No. 1 above to use Tier 4 engines or alternatively fueled equipment,
 - Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors,
 - Use of electrically-powered equipment,
 - Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
 - Change in construction build-out plans to lengthen phases, and
 - Implementation of different building techniques that result in less diesel equipment usage.

Such a construction operations plan would be subject to review by an air quality expert and approved by the City prior to construction.

Effectiveness of Mitigation Measure AQ-1 and AQ-2

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 Interim engine standards, electric cranes, generators, and compressors, and BAAQMD best management practices for construction were included. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 83 percent to 7.37 per million. As a result, the project's construction risks and hazards would be reduced below the BAAQMD single-source threshold.

Non-CEQA: On-site Health Risk Assessment for TAC Sources - New Project Sensitive Residences

The City's General Plan Policy MS-11.1 requires new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into their designs to avoid significant risks to health and safety. BAAQMD's recommended thresholds for health risks and hazards, shown in Table 1, are used to evaluate on-site exposure.

A health risk assessment was completed to assess the impact that the existing TAC sources would have on the new proposed sensitive receptors (residents) introduced by the project. The same TAC sources identified above were used in this assessment.²⁷ Figure 3 shows the on-site sensitive

²⁷ We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201

receptors in relation to the nearby TAC sources. Results are listed in Table 8. *Attachment 5* includes the dispersion modeling and risk calculations for TAC source impacts upon the proposed on-site sensitive receptors.

Local Roadways – E. Tasman Drive and Zanker Road

The roadway impacts on new project residents was conducted in the same manner as described above for the off-site MEIs. On-site receptors were placed throughout the project site with a spacing of 7 meters (23 feet). Roadway impacts were modeled at receptor heights of 5 feet (1.5 meters) and 17 feet (5.2 meters) representing sensitive receptors on the first and second floors of the proposed buildings. The portion of the roadways included in the modeling is shown in Figure 3 along with the project site and receptor locations where impacts were modeled.

Maximum increased cancer risks were calculated for the residents at the project site using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include infants and adults were assumed to be in the new apartments for 24 hours per day for 350 days per year. The highest impacts from the combined roadways occurred at a receptor on the first floor in the southern corner of the multi-family building. Cancer risks associated with the roadways are greatest closest to the roadways and decrease with distance from the roads. The roadway impacts at the project site are shown in Table 8. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5*.

Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for the construction MEI. Table 8 includes the health risk assessment results for the stationary sources.

Summary of Cumulative Health Risks at the Project Site

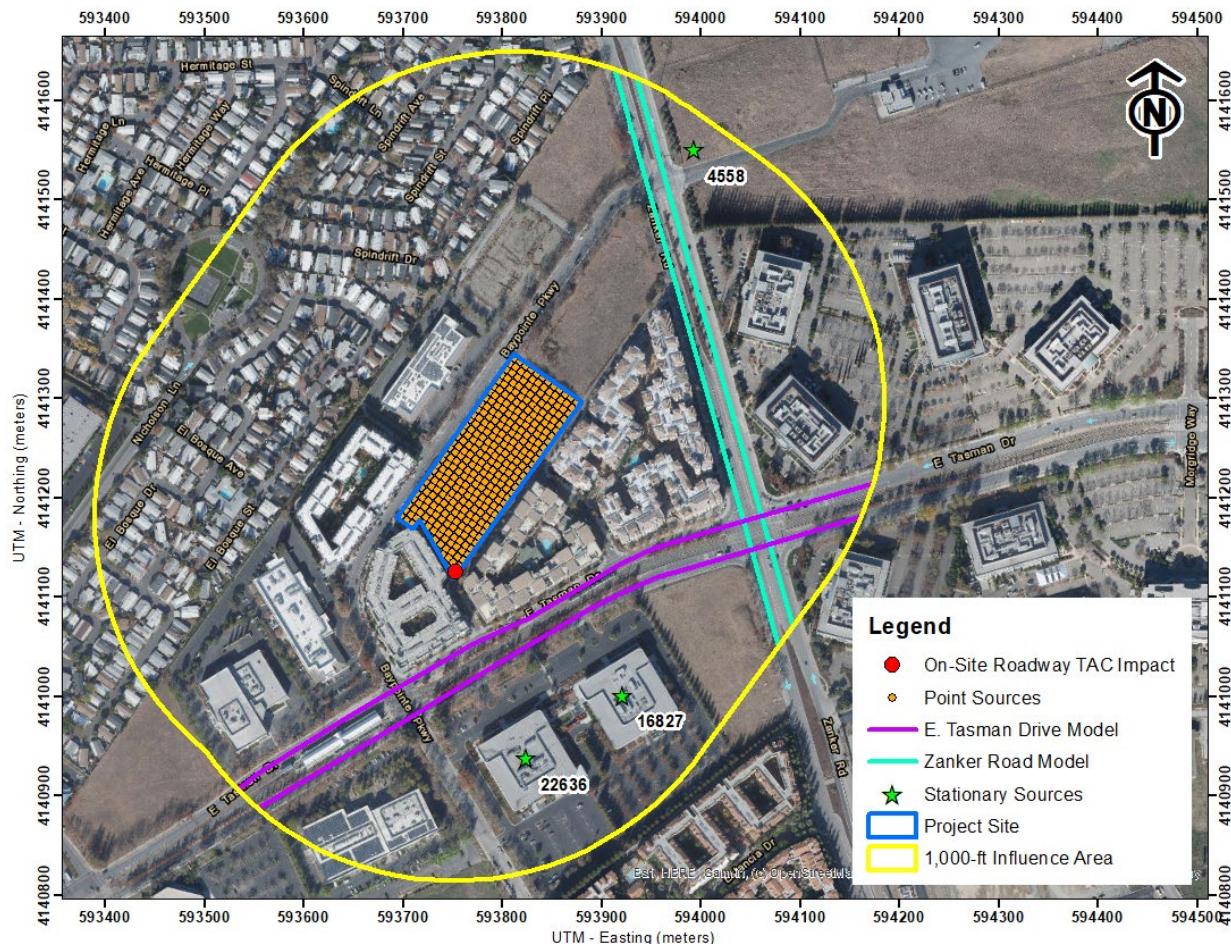
Health risk impacts from the existing and TAC sources upon the project site are reported in Table 8. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, none of the sources exceed the single-source or cumulative-source thresholds.

Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself “exacerbates” such impacts.

Table 8. Impacts from Combined Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual PM _{2.5} ($\mu\text{g}/\text{m}^3$)	Hazard Index
E. Tasman Drive, ADT 33,432	1.52	0.12	<0.01
Zanker Road, ADT 28,264	0.72	0.05	<0.01
Netscout Systems (Facility ID #16827, Generator), MEI at 580 feet	0.81	<0.01	<0.01
LBA RIV-Company XXV LLC (Facility #22636, Generator), MEI at 580 feet	0.26	<0.01	<0.01
BAAQMD Single-Source Threshold	10	0.3	1.0
Exceed Threshold?	No	No	No
Cumulative Total	3.31	<0.19	<0.04
BAAQMD Cumulative Source Threshold	100	0.8	10.0
Exceed Threshold?	No	No	No

Figure 3. Locations of Project Site, On-Site Residential Receptors, Roadway Models, Stationary Sources, and Maximum TAC Impacts



Supporting Documentation

Attachment 1 is the methodology used to compute health risk impacts, including the methods to compute lifetime cancer risk from exposure to project emissions.

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant emissions. Also included are any modeling assumptions.

Attachment 3 includes the EMFAC2021 emissions modeling.

Attachment 4 is the construction health risk assessment. AERMOD dispersion modeling files for these assessments, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 5 includes the cumulative health risk calculations, modeling results, and health risk calculations from sources affecting the MEI.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.²⁸ These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.²⁹ This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.³⁰ Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs is calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency and duration of exposure. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day) or liters per kilogram of body weight per 8-hour period for the case of worker or school child exposures. As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools and daycare facilities, BAAQMD recommends using the 95th percentile 8-hour breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of

²⁸ OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

²⁹ CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

³⁰ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults, a 25-year exposure period is recommended by the BAAQMD. For school children a 9-year exposure period is recommended by the BAAQMD.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

$$\text{Cancer Risk (per million)} = \text{CPF} \times \text{Inhalation Dose} \times \text{ASF} \times \text{ED/AT} \times \text{FAH} \times 10^6$$

Where:

CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

$$\text{Inhalation Dose} = C_{\text{air}} \times DBR^* \times A \times (EF/365) \times 10^{-6}$$

Where:

C_{air} = concentration in air ($\mu\text{g/m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

8HrBR = 8-hour breathing rate (L/kg body weight-8 hours)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

* An 8-hour breathing rate (8HrBR) is used for worker and school child exposures.

The health risk parameters used in this evaluation are summarized as follows:

Parameter	Exposure Type →	Infant		Child	Adult
	Age Range →	3 rd Trimester	0<2	2 < 16	16 - 30
DPM Cancer Potency Factor (mg/kg-day) ⁻¹		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Vehicle TOG Exhaust		6.28E-03	6.28E-03	6.28E-03	6.28E-03
Vehicle TOG Evaporative		3.70E-04	3.70E-04	3.70E-04	3.70E-04
Daily Breathing Rate (L/kg-day) 80 th Percentile Rate	273	758	572	261	
Daily Breathing Rate (L/kg-day) 95 th Percentile Rate	361	1,090	745	335	
8-hour Breathing Rate (L/kg-8 hours) 95 th Percentile Rate	-	1,200	520	240	
Inhalation Absorption Factor	1	1	1	1	
Averaging Time (years)	70	70	70	70	
Exposure Duration (years)	0.25	2	14	14*	
Exposure Frequency (days/year)	350	350	350	350*	
Age Sensitivity Factor	10	10	3	1	
Fraction of Time at Home (FAH)	0.85-1.0	0.85-1.0	0.72-1.0	0.73*	

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Annual PM_{2.5} Concentrations

While not a TAC, fine particulate matter (PM_{2.5}) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for PM_{2.5} (project level and cumulative) are in terms of an increase in the annual average concentration. When considering PM_{2.5} impacts, the contribution from all sources of PM_{2.5} emissions should be included. For projects with potential impacts from nearby local roadways, the PM_{2.5} impacts should include those from vehicle exhaust emissions, PM_{2.5} generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: <u>210 Baypoint-Town Condo Project</u> <small>See Equipment Type TAB for type, horsepower and load factor</small>						Complete ALL Portions in Yellow							
<p>Project Size</p> <p>42 Dwelling Units 2.4 total project acres disturbed</p> <p>approximately <u>99,582</u> s.f. residential</p> <p><u>0</u> s.f. retail</p> <p><u>0</u> s.f. office/commercial</p> <p><u>0</u> s.f. other, specify:</p> <p>approximately <u>0</u> s.f. parking garage spaces</p> <p>approximately <u>1,440</u> s.f. uncovered parking 8 spaces</p>						Pile Driving? NO.							
						Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? <u>_N_X</u> IF YES (if BOTH separate values) -->							
						Fuel Type: <u>N/A</u>							
						Location in project (Plans Desired if Available):							
												DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT	
												Comments	
												Overall Import/Export Volumes	
						Demolition Volume							
						Square footage of buildings to be demolished (or total tons to be hauled)							
						See Apartment Sheet square feet or See Apartment Sheet Hauling volume (tons)							
						Any pavement demolished and hauled? See Apartment Sheet							
						Soil Hauling Volume							
						Export volume = See Apartment Sheet Import Volume = See Apartment Sheet							
						Trenching - Underground Utilities							
						Cement Trucks? Y See Apartment Sheet							
						Cement Trucks? Y Total Round-Trips 85 trucks for the duration of the project for foundations							
						Electric? (Y/N) N Otherwise assumed diesel							
						Liquid Propane (LPG)? (N) Otherwise Assumed diesel Yes diesel 170 KW Generators for 10 months until temporary line power is established.							
						Building - Foundation							
						Building - Exterior							
						Building - Interior/Architectural Coating							
						Additional Phases							
						Equipment types listed in "Equipment Types" worksheet tab.							
						Complete one sheet for each project component							
						Equipment listed in this sheet is to provide an example of inputs It is assumed that water trucks would be used during grading Add or subtract phases and equipment, as appropriate Modify horsepower or load factor, as appropriate							

Air Quality/Noise Construction Information Data Request

Project Name: BAYPOINTE Apartment Community, San Jose, CA

Complete ALL Portions in Yellow

Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e	
Year	Tons				MT		
Construction Equipment							
2025	6.70	3.08	0.13	0.12	0.02	610.22	
EMFAC							
2025	0.18	0.61	0.053	0.021	0.080	734.95	
Total Construction Emissions by Year							
2025	6.88	3.69	0.18	0.14	1345.17		
Total Construction Emissions							
Tons	6.88	3.69	0.18	0.14	1345.17		
Pounds/Workdays	Average Daily Emissions				Workdays		
2025	52.75	28.28	1.39	1.11			261
Threshold - lbs/day	54.0	54.0	82.0	54.0			
Total Construction Emissions							
Pounds	52.75	28.28	1.39	1.11	0.00		
Average	52.75	28.28	1.39	1.11	0.00		261.00
Threshold - lbs/day	54.0	54.0	82.0	54.0			
Operational Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5			
Year	Tons						
Total	2.83	0.49	0.98	0.26			
Existing Use Emissions							
Net Annual Operational Emissions							
Tons/year	2.83	0.49	0.98	0.26			
Threshold - Tons/year	10.0	10.0	15.0	10.0			
Average Daily Emissions							
Pounds Per Day	15.49	2.71	5.35	1.42			
Threshold - lbs/day	54.0	54.0	82.0	54.0			
Category	CO2e						
	Project	Existing	Project 2030	Existing			
Area	4.09						
Energy	238.96						
Mobile	934.31						
Waste	76.11						
Water	26.48						
TOTAL	1279.96	0.00	0.00	0.00			
Net GHG Emissions		1279.96		0.00			
Service Population	0.00						
Per Capita Emissions		#DIV/0!		#DIV/0!			
CA DOF 1920 =	0 units 0 pphh						

Mitigated Construction Criteria Air Pollutants						
Mitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	M2.5 Fugitive	CO2e
Year	Tons					MT
Construction Equipment						
2025			0.03		0.01	
EMFAC						
2025						
<i>Total Construction Emissions by Year</i>						
2025	0.00	0.00	0.03	0.00		0.00
	<i>Total Construction Emissions</i>					
Tons	0.00	0.00	0.06	0.02		0.00

210 Baypointe Parkway

Unmitigated DPM

Year 2025	CalEEMod DPM	DPM EMFAC2021	Unmitigated Emissions		CalEEMod Fug PM2.5	Fug PM2.5 EMFAC2021	Unmitigated Emissions
	0.1282	0.0032	0.1314		0.0192	0.0039	0.0231

Mitigated DPM

Year 2025	CalEEMod DPM	DPM EMFAC2021	Mitigated Emissions		CalEEMod Fug PM2.5	Fug PM2.5 EMFAC2021	Mitigated Emissions
	0.0196	0.0032	0.0228		0.0086	0.0039	0.0125

Traffic Consultant Trip Gen					CalEEMod Default				
Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun		
Condominiums	DU	42	198	47	1.12	7.32	8.14	6.28	Rev
Based Vehicle Mode Share	12%		-95						
Project-Specific Trip Reduction	8%		-56						
Apartments Mid-Rise	DU	287	1387	1236	4.31	5.44	4.91	4.09	Rev
Based Vehicle Mode Share	12%		-95						
Project-Specific Trip Reduction	8%		-56						

Table 1
Project Trip Generation Estimates for 210 Baypointe Parkway Residential Project

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
				Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Condominiums ¹	42 DU	4.72	198	0.38	5	11	16	0.61	16	10	26
Apartments ¹	292 DU	4.75	1,387	0.32	52	41	93	0.29	37	48	85
Gross Project Trips:				1585	57	52	109	53	58	111	
Location-Based Vehicle Mode Share (12%) ²			(190)		(7)	(6)	(13)		(6)	(7)	(13)
Project-Specific Trip Reduction (8%) ³			(112)		(4)	(4)	(8)		(4)	(4)	(8)
Total Net Project Trips:				1,283	46	42	88	43	47	90	

Notes:

¹ Trip generation based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Multifamily Housing Low-Rise (Land Use 220) and Multifamily Housing Mid-Rise (Land Use 221) located close to transit in a General Urban/Suburban setting. Rates expressed in trips per DU.

² A 12% reduction was applied to the project based on the location-based vehicle mode share % outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for place type: Suburban with Multifamily Housing.

³ An 8% reduction was applied to the residential component of the project based on the external trip adjustments obtained from the City's VMT Evaluation Tool due to the increased residential density for the site as a result of the project.

Building-Exterior		Cft	CY	Deliveries	Trips
	sq in	sq ft			
Concrete		0	0	16750	2010
Asphalt		0	0	0	0
Asphalt Demo		0	0	0	0

Asphalt Paving		Cft	CY	Deliveries	Trips
	sq in	sq ft			
Concrete		0	0	0	0
Asphalt		0	0	130	15.6
Asphalt Demo		0	0	0	0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**210 Baypointe, San Jose****Santa Clara County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	343.00	Space	0.00	127,800.00	0
Parking Lot	8.00	Space	0.00	1,440.00	0
Apartments Mid Rise	287.00	Dwelling Unit	0.00	346,245.00	821
Condo/Townhouse	42.00	Dwelling Unit	2.40	99,582.00	120

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2026
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MWhr)	178	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - San Jose Clean Energy 2020 rate = 178 lb/MWh.

Land Use - Total lot acreage, parking spaces, and square footage provided by construction sheet from applicant. Apartments mid-rise = 282,280 sf residential + 3,600 office/commercial + 60,365 = 346,245

Construction Phase - Provided by construction worksheets.

Off-road Equipment - Provided by Apartments Construction Worksheet.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Provided by Townhomes Construction Worksheet.

Off-road Equipment - Provided by Apartments Construction Worksheet.

Trips and VMT - EMFAC2021 adjustments 0 trips - Apartments worksheet = building demo = 90 tons of pavement hauled, building const = 16,750-cy of concrete, paving = 130-cy of asphalt. Townhomes worksheet = building foundation = 85 concrete truck round trips.

Demolition - Existing building demo = 72,000-sf. From Apartment construction worksheet.

Grading - Grading = 3,500-cy soil export and 1,100-cy soil import. From Apartment Construction Worksheet.

Vehicle Trips - Provided trip gen with reduction adjustments.

Vehicle Emission Factors - EMFAC2021 vehicle emission factors Santa Clara County 2026.

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No hearths

Energy Use - San Jose Reach Code - all electric buildings. Convert natural gas to electricity.

Water And Wastewater - Wastewater treatment 100% aerobic - no septic tanks or lagoons.

Construction Off-road Equipment Mitigation - BMPs, tier 4 interim mitigation. Electric cranes, generators, compressors

Fleet Mix - EMFAC2021 fleet mix Santa Clara County 2026.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	120.00
tblConstructionPhase	NumDays	10.00	182.00
tblConstructionPhase	NumDays	220.00	18.00
tblConstructionPhase	NumDays	220.00	182.00
tblConstructionPhase	NumDays	220.00	179.00

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tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	6.00	15.00
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	3.00	15.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3,054.10	3,978.74
tblEnergyUse	NT24E	3,795.01	4,719.65
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	70.89	1,602.68
tblEnergyUse	T24E	52.36	4,186.02
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	14,104.62	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00

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tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	43.05	0.00
tblFireplaces	NumberGas	6.30	0.00
tblFireplaces	NumberNoFireplace	11.48	0.00
tblFireplaces	NumberNoFireplace	1.68	0.00
tblFireplaces	NumberWood	48.79	0.00
tblFireplaces	NumberWood	7.14	0.00
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003

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tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004

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tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblGrading	MaterialExported	0.00	3,500.00
tblGrading	MaterialImported	0.00	1,100.00
tblLandUse	LandUseSquareFeet	137,200.00	127,800.00
tblLandUse	LandUseSquareFeet	3,200.00	1,440.00
tblLandUse	LandUseSquareFeet	287,000.00	346,245.00
tblLandUse	LandUseSquareFeet	42,000.00	99,582.00
tblLandUse	LotAcreage	3.09	0.00
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	7.55	0.00
tblLandUse	LotAcreage	2.63	2.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	5.30
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.10
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	4.80
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.50
tblOffRoadEquipment	UsageHours	6.00	0.10
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	5.30
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

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tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.30
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	HaulingTripNumber	327.00	0.00
tblTripsAndVMT	HaulingTripNumber	575.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	58.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	291.00	0.00
tblTripsAndVMT	WorkerTripNumber	291.00	0.00
tblTripsAndVMT	WorkerTripNumber	58.00	0.00
tblTripsAndVMT	WorkerTripNumber	291.00	0.00
tblVehicleEF	HHD	0.02	0.22
tblVehicleEF	HHD	0.05	0.11
tblVehicleEF	HHD	6.31	5.15
tblVehicleEF	HHD	0.41	0.73
tblVehicleEF	HHD	5.9100e-003	7.3800e-004
tblVehicleEF	HHD	1,010.86	795.67
tblVehicleEF	HHD	1,358.12	1,554.97
tblVehicleEF	HHD	0.05	0.01

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tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.22	0.25
tblVehicleEF	HHD	5.0000e-006	8.0000e-006
tblVehicleEF	HHD	5.31	3.85
tblVehicleEF	HHD	2.65	1.70
tblVehicleEF	HHD	2.32	2.76
tblVehicleEF	HHD	2.4220e-003	2.0130e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.3170e-003	1.9190e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8910e-003	8.7830e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.43	0.32
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.4050e-003	6.9240e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.49	0.58
tblVehicleEF	HHD	1.0000e-006	0.00

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tblVehicleEF	HHD	0.08	0.13
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	1.3660e-003	1.6750e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.47	0.57
tblVehicleEF	LDA	1.93	2.55
tblVehicleEF	LDA	220.20	231.76
tblVehicleEF	LDA	46.75	60.10
tblVehicleEF	LDA	3.5660e-003	3.6780e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.15	0.21
tblVehicleEF	LDA	0.04	7.1220e-003
tblVehicleEF	LDA	1.1800e-003	1.0710e-003
tblVehicleEF	LDA	1.5670e-003	1.7910e-003
tblVehicleEF	LDA	0.02	2.4930e-003
tblVehicleEF	LDA	1.0860e-003	9.8600e-004
tblVehicleEF	LDA	1.4410e-003	1.6470e-003
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	4.9090e-003	6.2070e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.16	0.25
tblVehicleEF	LDA	2.1780e-003	2.2910e-003
tblVehicleEF	LDA	4.6300e-004	5.9400e-004
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07

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tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	7.1350e-003	9.0460e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.18	0.28
tblVehicleEF	LDT1	2.7310e-003	5.0100e-003
tblVehicleEF	LDT1	0.05	0.09
tblVehicleEF	LDT1	0.71	1.21
tblVehicleEF	LDT1	2.08	4.52
tblVehicleEF	LDT1	264.87	313.06
tblVehicleEF	LDT1	56.84	82.07
tblVehicleEF	LDT1	4.8810e-003	7.9710e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.19	0.34
tblVehicleEF	LDT1	0.04	9.2110e-003
tblVehicleEF	LDT1	1.4310e-003	1.7060e-003
tblVehicleEF	LDT1	1.8820e-003	2.6150e-003
tblVehicleEF	LDT1	0.02	3.2240e-003
tblVehicleEF	LDT1	1.3170e-003	1.5700e-003
tblVehicleEF	LDT1	1.7300e-003	2.4040e-003
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.22	0.46
tblVehicleEF	LDT1	2.6210e-003	3.0950e-003
tblVehicleEF	LDT1	5.6300e-004	8.1100e-004
tblVehicleEF	LDT1	0.06	0.53

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tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.24	0.50
tblVehicleEF	LDT2	2.4210e-003	2.4020e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	2.52	3.24
tblVehicleEF	LDT2	280.92	319.41
tblVehicleEF	LDT2	60.84	81.79
tblVehicleEF	LDT2	4.9510e-003	5.3430e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.21	0.29
tblVehicleEF	LDT2	0.04	8.8560e-003
tblVehicleEF	LDT2	1.2560e-003	1.2430e-003
tblVehicleEF	LDT2	1.6140e-003	2.0020e-003
tblVehicleEF	LDT2	0.02	3.1000e-003
tblVehicleEF	LDT2	1.1560e-003	1.1440e-003
tblVehicleEF	LDT2	1.4840e-003	1.8410e-003
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	9.5280e-003	9.2320e-003
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.24	0.33
tblVehicleEF	LDT2	2.7790e-003	3.1570e-003
tblVehicleEF	LDT2	6.0200e-004	8.0900e-004

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tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.27	0.36
tblVehicleEF	LHD1	4.6670e-003	5.0240e-003
tblVehicleEF	LHD1	6.7660e-003	6.5110e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.61	0.77
tblVehicleEF	LHD1	0.99	2.16
tblVehicleEF	LHD1	8.66	8.48
tblVehicleEF	LHD1	749.59	747.67
tblVehicleEF	LHD1	11.02	17.34
tblVehicleEF	LHD1	7.4200e-004	6.3000e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.50	0.52
tblVehicleEF	LHD1	0.27	0.40
tblVehicleEF	LHD1	8.7200e-004	6.8700e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8310e-003	9.4180e-003
tblVehicleEF	LHD1	8.5970e-003	0.01
tblVehicleEF	LHD1	2.3200e-004	1.9000e-004
tblVehicleEF	LHD1	8.3400e-004	6.5700e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4580e-003	2.3550e-003

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tblVehicleEF	LHD1	8.1790e-003	0.01
tblVehicleEF	LHD1	2.1300e-004	1.7400e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD1	8.4000e-005	8.3000e-005
tblVehicleEF	LHD1	7.3150e-003	7.3000e-003
tblVehicleEF	LHD1	1.0900e-004	1.7100e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.10	0.09
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.07	0.11
tblVehicleEF	LHD2	2.8270e-003	2.9010e-003
tblVehicleEF	LHD2	6.0420e-003	5.9100e-003
tblVehicleEF	LHD2	6.5340e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.54	0.49
tblVehicleEF	LHD2	0.55	1.18
tblVehicleEF	LHD2	13.60	13.61
tblVehicleEF	LHD2	727.00	794.48
tblVehicleEF	LHD2	7.15	9.38
tblVehicleEF	LHD2	1.7170e-003	1.6800e-003

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tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.60	0.73
tblVehicleEF	LHD2	0.15	0.22
tblVehicleEF	LHD2	1.4660e-003	1.4060e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1700e-004	8.1000e-005
tblVehicleEF	LHD2	1.4020e-003	1.3460e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7000e-003	2.6660e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.0800e-004	7.5000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	7.0160e-003	7.6510e-003
tblVehicleEF	LHD2	7.1000e-005	9.3000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.12	0.12

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tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.32	0.15
tblVehicleEF	MCY	0.25	0.17
tblVehicleEF	MCY	18.17	11.99
tblVehicleEF	MCY	9.11	7.93
tblVehicleEF	MCY	209.94	186.84
tblVehicleEF	MCY	60.17	46.31
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.3810e-003
tblVehicleEF	MCY	1.14	0.55
tblVehicleEF	MCY	0.27	0.12
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0610e-003	1.9450e-003
tblVehicleEF	MCY	2.9290e-003	3.4700e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9240e-003	1.8180e-003
tblVehicleEF	MCY	2.7480e-003	3.2560e-003
tblVehicleEF	MCY	0.90	3.85
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.16	0.99
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	1.91	1.27
tblVehicleEF	MCY	2.0780e-003	1.8470e-003
tblVehicleEF	MCY	5.9500e-004	4.5800e-004
tblVehicleEF	MCY	0.90	0.09
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00

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tblVehicleEF	MCY	2.70	1.20
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	2.08	1.38
tblVehicleEF	MDV	2.6580e-003	2.9620e-003
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.67	0.81
tblVehicleEF	MDV	2.67	3.40
tblVehicleEF	MDV	339.08	383.54
tblVehicleEF	MDV	72.17	97.43
tblVehicleEF	MDV	6.5120e-003	6.9680e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.24	0.35
tblVehicleEF	MDV	0.04	8.9510e-003
tblVehicleEF	MDV	1.3050e-003	1.2470e-003
tblVehicleEF	MDV	1.6620e-003	1.9840e-003
tblVehicleEF	MDV	0.02	3.1330e-003
tblVehicleEF	MDV	1.2040e-003	1.1490e-003
tblVehicleEF	MDV	1.5280e-003	1.8240e-003
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.28	0.41
tblVehicleEF	MDV	3.3510e-003	3.7890e-003
tblVehicleEF	MDV	7.1400e-004	9.6300e-004
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08

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tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.31	0.45
tblVehicleEF	MH	7.6660e-003	9.9190e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.68	0.93
tblVehicleEF	MH	1.87	2.26
tblVehicleEF	MH	1,445.75	1,674.32
tblVehicleEF	MH	17.15	21.62
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.21	1.44
tblVehicleEF	MH	0.24	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.4000e-004	2.8100e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2870e-003	3.3150e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.2100e-004	2.5800e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.02

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tblVehicleEF	MH	1.7000e-004	2.1400e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MHD	3.6600e-003	0.01
tblVehicleEF	MHD	1.3680e-003	9.5250e-003
tblVehicleEF	MHD	8.6830e-003	7.9190e-003
tblVehicleEF	MHD	0.40	0.66
tblVehicleEF	MHD	0.19	0.26
tblVehicleEF	MHD	0.97	0.93
tblVehicleEF	MHD	69.63	156.70
tblVehicleEF	MHD	1,051.19	1,196.53
tblVehicleEF	MHD	8.85	7.91
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.13	0.15
tblVehicleEF	MHD	7.3550e-003	5.6890e-003
tblVehicleEF	MHD	0.38	0.80
tblVehicleEF	MHD	1.45	0.91
tblVehicleEF	MHD	1.70	1.39
tblVehicleEF	MHD	2.7700e-004	1.4450e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	7.0640e-003	9.6350e-003
tblVehicleEF	MHD	1.1200e-004	9.6000e-005
tblVehicleEF	MHD	2.6500e-004	1.3820e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7520e-003	9.2100e-003

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tblVehicleEF	MHD	1.0300e-004	8.9000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	6.6100e-004	1.4520e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.8000e-005	7.8000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	7.0720e-003	7.5520e-003
tblVehicleEF	OBUS	2.9940e-003	9.8650e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.61	0.53
tblVehicleEF	OBUS	0.35	0.40
tblVehicleEF	OBUS	1.73	1.78
tblVehicleEF	OBUS	95.34	88.16
tblVehicleEF	OBUS	1,283.24	1,344.05
tblVehicleEF	OBUS	14.49	14.24
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.13	0.16

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tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.40	0.36
tblVehicleEF	OBUS	1.45	0.93
tblVehicleEF	OBUS	1.11	0.99
tblVehicleEF	OBUS	1.3100e-004	3.9000e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.5500e-003	0.01
tblVehicleEF	OBUS	1.4900e-004	1.2900e-004
tblVehicleEF	OBUS	1.2600e-004	3.7300e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.2100e-003	0.01
tblVehicleEF	OBUS	1.3700e-004	1.1800e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.08	0.09
tblVehicleEF	OBUS	9.0500e-004	8.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.4300e-004	1.4100e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09

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tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	5.4710e-003	0.09
tblVehicleEF	SBUS	5.3640e-003	4.9930e-003
tblVehicleEF	SBUS	2.48	1.73
tblVehicleEF	SBUS	0.45	0.84
tblVehicleEF	SBUS	0.76	0.68
tblVehicleEF	SBUS	344.98	188.59
tblVehicleEF	SBUS	1,025.26	1,007.35
tblVehicleEF	SBUS	4.41	3.84
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.13	0.12
tblVehicleEF	SBUS	5.3260e-003	4.5020e-003
tblVehicleEF	SBUS	3.24	1.29
tblVehicleEF	SBUS	4.17	2.24
tblVehicleEF	SBUS	0.95	0.50
tblVehicleEF	SBUS	3.0570e-003	1.1130e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.4000e-005	4.2000e-005
tblVehicleEF	SBUS	2.9250e-003	1.0640e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7030e-003	2.6360e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.0000e-005	3.9000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.27	0.19
tblVehicleEF	SBUS	2.9200e-004	0.00

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tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.2860e-003	1.7120e-003
tblVehicleEF	SBUS	9.7970e-003	9.3590e-003
tblVehicleEF	SBUS	4.4000e-005	3.8000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.39	0.31
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.74	0.53
tblVehicleEF	UBUS	1.7570e-003	3.7120e-003
tblVehicleEF	UBUS	13.20	6.31
tblVehicleEF	UBUS	0.14	0.50
tblVehicleEF	UBUS	1,654.13	1,064.85
tblVehicleEF	UBUS	1.40	3.15
tblVehicleEF	UBUS	0.28	0.16
tblVehicleEF	UBUS	1.1340e-003	6.0350e-003
tblVehicleEF	UBUS	0.71	0.29
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.07	0.13
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.1700e-003	5.5470e-003
tblVehicleEF	UBUS	1.5000e-005	1.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01

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tblVehicleEF	UBUS	4.9450e-003	5.3030e-003
tblVehicleEF	UBUS	1.4000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	7.3620e-003	0.01
tblVehicleEF	UBUS	0.01	8.5860e-003
tblVehicleEF	UBUS	1.4000e-005	3.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	1.78	0.60
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	8.0600e-003	0.01
tblVehicleTrips	ST_TR	4.91	3.89
tblVehicleTrips	ST_TR	8.14	1.24
tblVehicleTrips	SU_TR	4.09	3.24
tblVehicleTrips	SU_TR	6.28	0.96
tblVehicleTrips	WD_TR	5.44	4.31
tblVehicleTrips	WD_TR	7.32	1.12
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

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tblWater	Anaerobic and Facultative Lagoons Percent	2.21	0.00
tblWater	Septic Tank Percent	10.33	0.00
tblWater	Septic Tank Percent	10.33	0.00
tblWater	Septic Tank Percent	10.33	0.00
tblWater	Septic Tank Percent	10.33	0.00
tblWoodstoves	Number Catalytic	5.74	0.00
tblWoodstoves	Number Catalytic	0.84	0.00
tblWoodstoves	Number Noncatalytic	5.74	0.00
tblWoodstoves	Number Noncatalytic	0.84	0.00
tblWoodstoves	Woodstove Day Year	14.12	0.00
tblWoodstoves	Woodstove Day Year	14.12	0.00
tblWoodstoves	Woodstove Wood Mass	582.40	0.00
tblWoodstoves	Woodstove Wood Mass	582.40	0.00

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					
2025	6.7013	3.0767	4.1895	7.1300e-003	0.0645	0.1282	0.1927	0.0192	0.1236	0.1427	0.0000	607.8829	607.8829	0.0934	0.0000	610.2170
Maximum	6.7013	3.0767	4.1895	7.1300e-003	0.0645	0.1282	0.1927	0.0192	0.1236	0.1427	0.0000	607.8829	607.8829	0.0934	0.0000	610.2170

Mitigated 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					
2025	6.3887	1.4193	2.0434	2.9900e-003	0.0290	0.0196	0.0486	8.6200e-003	0.0196	0.0282	0.0000	251.5011	251.5011	0.0651	0.0000	253.1294
Maximum	6.3887	1.4193	2.0434	2.9900e-003	0.0290	0.0196	0.0486	8.6200e-003	0.0196	0.0282	0.0000	251.5011	251.5011	0.0651	0.0000	253.1294

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.67	53.87	51.22	58.06	55.00	84.72	74.78	54.99	84.15	80.24	0.00	58.63	58.63	30.25	0.00	58.52

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2025	4-1-2025	0.4005	0.2942
2	4-2-2025	7-1-2025	2.1791	1.8551
3	7-2-2025	9-30-2025	6.2327	5.2284
		Highest	6.2327	5.2284

2.2 Overall OperationalUnmitigated 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	2.1396	0.0281	2.4438	1.3000e-004	0.0136	0.0136	0.0272	0.0136	0.0136	0.0312	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	236.2825	236.2825	0.0438	5.3100e-003	238.9599	

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Mobile	0.6878	0.4662	4.3543	9.9600e-003	0.9569	6.8400e-003	0.9637	0.2386	6.3800e-003	0.2450	0.0000	920.1365	920.1365	0.0496	0.0434	934.3120
Waste						0.0000	0.0000		0.0000	0.0000	30.7207	0.0000	30.7207	1.8155	0.0000	76.1091
Water						0.0000	0.0000		0.0000	0.0000	7.5840	13.1837	20.7677	0.0286	0.0168	26.4844
Total	2.8275	0.4944	6.7981	0.0101	0.9569	0.0204	0.9772	0.2386	0.0199	0.2586	38.3046	1,173.5993	1,211.9039	1.9413	0.0655	1,279.9580

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	2.1396	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	236.2825	236.2825	0.0438	5.3100e-003	238.9599
Mobile	0.6878	0.4662	4.3543	9.9600e-003	0.9569	6.8400e-003	0.9637	0.2386	6.3800e-003	0.2450	0.0000	920.1365	920.1365	0.0496	0.0434	934.3120
Waste						0.0000	0.0000		0.0000	0.0000	30.7207	0.0000	30.7207	1.8155	0.0000	76.1091
Water						0.0000	0.0000		0.0000	0.0000	7.5840	13.1837	20.7677	0.0286	0.0168	26.4844
Total	2.8275	0.4944	6.7981	0.0101	0.9569	0.0204	0.9772	0.2386	0.0199	0.2586	38.3046	1,173.5993	1,211.9039	1.9413	0.0655	1,279.9580

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	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

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2025	2/5/2025	6	30	
2	Site Preparation	Site Preparation	2/13/2025	2/18/2025	6	5	
3	Grading	Grading	2/20/2025	3/8/2025	6	15	
4	Trenching	Trenching	3/13/2025	5/21/2025	6	60	
5	Fine Grade, Rock and Pave	Site Preparation	3/31/2025	4/16/2025	6	15	
6	Building - Foundation	Building Construction	4/21/2025	5/10/2025	6	18	
7	Building - Exterior	Building Construction	5/19/2025	12/16/2025	6	182	
8	Building - Interior/Architectural Coating	Architectural Coating	5/19/2025	12/16/2025	6	182	
9	Building Construction	Building Construction	6/6/2025	12/31/2025	6	179	
10	Architectural Coating	Architectural Coating	6/6/2025	10/23/2025	6	120	
11	Paving	Paving	12/1/2025	12/29/2025	6	25	

Acres of Grading (Site Preparation Phase): 3.5**Acres of Grading (Grading Phase): 2.53****Acres of Paving: 0****Residential Indoor: 902,800; Residential Outdoor: 300,933; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 7,754****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	5.30	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	3	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	5.30	97	0.37
Site Preparation	Graders	1	3.20	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	0	0.00	367	0.48

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Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	1.60	81	0.73
Grading	Excavators	2	2.70	158	0.38
Grading	Graders	1	1.10	187	0.41
Grading	Rubber Tired Dozers	1	1.60	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	1	2.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Fine Grade, Rock and Pave	Graders	1	2.00	187	0.41
Fine Grade, Rock and Pave	Pavers	1	0.40	130	0.42
Fine Grade, Rock and Pave	Rollers	2	0.40	80	0.38
Fine Grade, Rock and Pave	Scrapers	1	0.50	367	0.48
Fine Grade, Rock and Pave	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building - Foundation	Cranes	0	0.00	231	0.29
Building - Foundation	Forklifts	0	0.00	89	0.20
Building - Foundation	Generator Sets	0	0.00	84	0.74
Building - Foundation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building - Foundation	Welders	0	0.00	46	0.45
Building - Exterior	Cranes	1	0.10	231	0.29
Building - Exterior	Forklifts	1	8.00	89	0.20
Building - Exterior	Generator Sets	0	0.00	84	0.74
Building - Exterior	Tractors/Loaders/Backhoes	1	0.10	97	0.37
Building - Exterior	Welders	0	0.00	46	0.45
Building - Interior/Architectural Coating	Air Compressors	5	4.00	78	0.48
Building Construction	Cranes	2	4.00	231	0.29
Building Construction	Forklifts	5	6.70	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Building Construction	Welders	5	5.30	46	0.45

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Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Architectural Coating	Air Compressors	3	4.00	78	0.48
Paving	Cement and Mortar Mixers	2	8.00	91	0.56
Paving	Pavers	1	1.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	4.80	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grade, Rock and Pave	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building - Foundation	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building - Exterior	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building - Interior/Architectural	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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3.2 Demolition - 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					
Fugitive Dust					0.0354	0.0000	0.0354	5.3700e-003	0.0000	5.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0294	0.2708	0.3041	5.6000e-004		0.0118	0.0118		0.0110	0.0110	0.0000	49.3518	49.3518	0.0130	0.0000	49.6762
Total	0.0294	0.2708	0.3041	5.6000e-004	0.0354	0.0118	0.0472	5.3700e-003	0.0110	0.0164	0.0000	49.3518	49.3518	0.0130	0.0000	49.6762

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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					0.0160	0.0000	0.0160	2.4100e-003	0.0000	2.4100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	9.4000e-003	0.2036	0.3660	5.6000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	49.3517	49.3517	0.0130	0.0000	49.6761	
Total	9.4000e-003	0.2036	0.3660	5.6000e-004	0.0160	8.8000e-004	0.0168	2.4100e-003	8.8000e-004	3.2900e-003	0.0000	49.3517	49.3517	0.0130	0.0000	49.6761	

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	

3.3 Site Preparation - 2025**Unmitigated Construction On-Site**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0169	0.0000	0.0169	8.4800e-003	0.0000	8.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.5900e-003	0.0267	0.0202	4.0000e-005		1.1100e-003	1.1100e-003		1.0200e-003	1.0200e-003	0.0000	3.8264	3.8264	1.2400e-003	0.0000	3.8574	
Total	2.5900e-003	0.0267	0.0202	4.0000e-005	0.0169	1.1100e-003	0.0180	8.4800e-003	1.0200e-003	9.5000e-003	0.0000	3.8264	3.8264	1.2400e-003	0.0000	3.8574	

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	

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					7.6100e-003	0.0000	7.6100e-003	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	8.0000e-004	0.0141	0.0266	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.8264	3.8264	1.2400e-003	0.0000	3.8574	
Total	8.0000e-004	0.0141	0.0266	4.0000e-005	7.6100e-003	7.0000e-005	7.6800e-003	3.8100e-003	7.0000e-005	3.8800e-003	0.0000	3.8264	3.8264	1.2400e-003	0.0000	3.8574	

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	

3.4 Grading - 2025**Unmitigated Construction On-Site**

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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	
Category	tons/yr											MT/yr					
Fugitive Dust					0.0106	0.0000	0.0106	5.1500e-003	0.0000	5.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	4.5600e-003	0.0431	0.0616	1.0000e-004		1.8000e-003	1.8000e-003		1.6700e-003	1.6700e-003	0.0000	8.9389	8.9389	2.6700e-003	0.0000	9.0056	
Total	4.5600e-003	0.0431	0.0616	1.0000e-004	0.0106	1.8000e-003	0.0124	5.1500e-003	1.6700e-003	6.8200e-003	0.0000	8.9389	8.9389	2.6700e-003	0.0000	9.0056	

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	

Mitigated Construction On-Site

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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	
Category	tons/yr											MT/yr					
Fugitive Dust					4.7900e-003	0.0000	4.7900e-003	2.3200e-003	0.0000	2.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	1.8600e-003	0.0404	0.0712	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.9389	8.9389	2.6700e-003	0.0000	9.0056	
Total	1.8600e-003	0.0404	0.0712	1.0000e-004	4.7900e-003	1.6000e-004	4.9500e-003	2.3200e-003	1.6000e-004	2.4800e-003	0.0000	8.9389	8.9389	2.6700e-003	0.0000	9.0056	

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	

3.5 Trenching - 2025**Unmitigated Construction On-Site**

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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	
Category	tons/yr											MT/yr					
Off-Road	7.2000e-003	0.0692	0.1248	1.8000e-004		2.8800e-003	2.8800e-003	2.6500e-003	2.6500e-003	0.0000	15.7352	15.7352	5.0900e-003	0.0000	15.8624		
Total	7.2000e-003	0.0692	0.1248	1.8000e-004		2.8800e-003	2.8800e-003	2.6500e-003	2.6500e-003	0.0000	15.7352	15.7352	5.0900e-003	0.0000	15.8624		

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								

Mitigated Construction On-Site

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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
Category	tons/yr										MT/yr					
Off-Road	3.6100e-003	0.0780	0.1348	1.8000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	15.7351	15.7351	5.0900e-003	0.0000	15.8624
Total	3.6100e-003	0.0780	0.1348	1.8000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	15.7351	15.7351	5.0900e-003	0.0000	15.8624

Mitigated Construction Off-Site

3.6 Fine Grade, Rock and Pave - 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					

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Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0162	0.0163	3.0000e-005		6.1000e-004	6.1000e-004		5.6000e-004	5.6000e-004	0.0000	3.0686	3.0686	9.9000e-004	0.0000	3.0934
Total	1.5600e-003	0.0162	0.0163	3.0000e-005	1.4900e-003	6.1000e-004	2.1000e-003	1.6000e-004	5.6000e-004	7.2000e-004	0.0000	3.0686	3.0686	9.9000e-004	0.0000	3.0934

Unmitigated Construction Off-Site

Mitigated Construction On-Site

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Off-Road	6.5000e-004	0.0119	0.0220	3.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.0686	3.0686	9.9000e-004	0.0000	3.0934
Total	6.5000e-004	0.0119	0.0220	3.0000e-005	6.7000e-004	6.0000e-005	7.3000e-004	7.0000e-005	6.0000e-005	1.3000e-004	0.0000	3.0686	3.0686	9.9000e-004	0.0000	3.0934

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

3.7 Building - Foundation - 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	1.7800e-003	0.0180	0.0301	4.0000e-005		7.3000e-004	7.3000e-004		6.7000e-004	6.7000e-004	0.0000	3.6993	3.6993	1.2000e-003	0.0000	3.7292
Total	1.7800e-003	0.0180	0.0301	4.0000e-005		7.3000e-004	7.3000e-004		6.7000e-004	6.7000e-004	0.0000	3.6993	3.6993	1.2000e-003	0.0000	3.7292

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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							

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	9.4000e-004	0.0183	0.0316	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6993	3.6993	1.2000e-003	0.0000	3.7292
Total	9.4000e-004	0.0183	0.0316	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6993	3.6993	1.2000e-003	0.0000	3.7292

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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								

3.8 Building - Exterior - 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	8.4100e-003	0.0796	0.1077	1.5000e-004		4.2000e-003	4.2000e-003		3.8700e-003	3.8700e-003	0.0000	13.1089	13.1089	4.2400e-003	0.0000	13.2149
Total	8.4100e-003	0.0796	0.1077	1.5000e-004		4.2000e-003	4.2000e-003		3.8700e-003	3.8700e-003	0.0000	13.1089	13.1089	4.2400e-003	0.0000	13.2149

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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								

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	3.2200e-003	0.0627	0.1084	1.4000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.5322	12.5322	4.0500e-003	0.0000	12.6335	
Total	3.2200e-003	0.0627	0.1084	1.4000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.5322	12.5322	4.0500e-003	0.0000	12.6335	

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				

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Building - Interior/Architectural Coating - 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					
Archit. Coating	3.1653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0518	0.3475	0.5488	9.0000e-004		0.0156	0.0156		0.0156	0.0156	0.0000	77.4487	77.4487	4.2200e-003	0.0000	77.5543
Total	3.2171	0.3475	0.5488	9.0000e-004		0.0156	0.0156		0.0156	0.0156	0.0000	77.4487	77.4487	4.2200e-003	0.0000	77.5543

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	0.2329	1.9652	2.5796	4.4800e-003		0.0796	0.0796		0.0769	0.0769	0.0000	378.3733	378.3733	0.0517	0.0000	379.6649
Total	0.2329	1.9652	2.5796	4.4800e-003		0.0796	0.0796		0.0769	0.0769	0.0000	378.3733	378.3733	0.0517	0.0000	379.6649

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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	0.0322	0.8655	1.0887	1.6100e-003		0.0153	0.0153		0.0153	0.0153	0.0000	130.6561	130.6561	0.0295	0.0000	131.3939	
Total	0.0322	0.8655	1.0887	1.6100e-003		0.0153	0.0153		0.0153	0.0153	0.0000	130.6561	130.6561	0.0295	0.0000	131.3939	

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								

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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	3.1653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1687	0.2826	4.6000e-004		6.7200e-003	6.7200e-003		6.6700e-003	6.6700e-003	0.0000	39.4906	39.4906	4.5300e-003	0.0000	39.6040	
Total	3.1879	0.1687	0.2826	4.6000e-004		6.7200e-003	6.7200e-003		6.6700e-003	6.6700e-003	0.0000	39.4906	39.4906	4.5300e-003	0.0000	39.6040	

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								

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1653						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0566	0.0765	1.0000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003	0.0000	8.8516	8.8516	2.8600e-003	0.0000	8.9231
Total	3.1678	0.0566	0.0765	1.0000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003	0.0000	8.8516	8.8516	2.8600e-003	0.0000	8.9231

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							

3.12 Paving - 2025**Unmitigated Construction On-Site**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.9100e-003	0.0717	0.1137	1.7000e-004		3.1500e-003	3.1500e-003		2.9300e-003	2.9300e-003	0.0000	14.8412	14.8412	4.5500e-003	0.0000	14.9550
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.9100e-003	0.0717	0.1137	1.7000e-004		3.1500e-003	3.1500e-003		2.9300e-003	2.9300e-003	0.0000	14.8412	14.8412	4.5500e-003	0.0000	14.9550

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

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.9000e-003	0.0682	0.1178	1.7000e-004		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	14.8412	14.8412	4.5500e-003	0.0000	14.9549
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9000e-003	0.0682	0.1178	1.7000e-004		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	14.8412	14.8412	4.5500e-003	0.0000	14.9549

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**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.6878	0.4662	4.3543	9.9600e-003	0.9569	6.8400e-003	0.9637	0.2386	6.3800e-003	0.2450	0.0000	920.1365	920.1365	0.0496	0.0434	934.3120	
Unmitigated	0.6878	0.4662	4.3543	9.9600e-003	0.9569	6.8400e-003	0.9637	0.2386	6.3800e-003	0.2450	0.0000	920.1365	920.1365	0.0496	0.0434	934.3120	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,236.97	1,116.43	929.88	2,715,821	2,715,821
Condo/Townhouse	47.04	52.08	40.32	108,090	108,090
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,284.01	1,168.51	970.20	2,823,911	2,823,911

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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 Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Apartments Mid Rise	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Condo/Townhouse	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Enclosed Parking with Elevator	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Parking Lot	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510

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	236.2825	236.2825	0.0438	5.3100e-003	238.9599
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	236.2825	236.2825	0.0438	5.3100e-003	238.9599
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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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 Mid Rise	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
Condo/Townhouse	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
Enclosed Parking with Elevator	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
Parking Lot	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						

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 Mid Rise	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
Condo/Townhouse	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
Enclosed Parking with Elevator	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
Parking Lot	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						

5.3 Energy by Land Use - Electricity

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.81466e+006	146.5147	0.0272	3.2900e-003	148.1749
Condo/Townhouse	416084	33.5944	6.2300e-003	7.5000e-004	33.9751
Enclosed Parking with Elevator	695232	56.1326	0.0104	1.2600e-003	56.7687
Parking Lot	504	0.0407	1.0000e-005	0.0000	0.0412
Total		236.2825	0.0438	5.3000e-003	238.9599

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.81466e+006	146.5147	0.0272	3.2900e-003	148.1749
Condo/Townhouse	416084	33.5944	6.2300e-003	7.5000e-004	33.9751
Enclosed Parking with Elevator	695232	56.1326	0.0104	1.2600e-003	56.7687
Parking Lot	504	0.0407	1.0000e-005	0.0000	0.0412
Total		236.2825	0.0438	5.3000e-003	238.9599

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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	2.1396	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926
Unmitigated	2.1396	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926

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	0.3165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7495					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0736	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	2.1396	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926
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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	0.3165						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7495						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0736	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926
Total	2.1396	0.0281	2.4438	1.3000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	3.9967	3.9967	3.8400e-003	0.0000	4.0926

7.0 Water Detail**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	20.7677	0.0286	0.0168	26.4844
Unmitigated	20.7677	0.0286	0.0168	26.4844

7.2 Water by Land Use**Unmitigated**

Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr		
Apartments Mid Rise	18.6992 / 11.7886	18.1165	0.0249	0.0147
Condo/Townhouse	2.73647 / 1.72517	2.6512	3.6400e-003	2.1400e-003
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000
Total	20.7677	0.0285	0.0168	26.4844

Mitigated

Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr		
Apartments Mid Rise	18.6992 / 11.7886	18.1165	0.0249	0.0147

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Condo/Townhouse	2.73647 / 1.72517	2.6512	3.6400e-003	2.1400e-003	3.3810
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		20.7677	0.0285	0.0168	26.4844

8.0 Waste Detail**8.1 Mitigation Measures Waste**Category/Year

	Total CO2	CH4	N2O	CO2e
MT/yr				
Mitigated	30.7207	1.8155	0.0000	76.1091
Unmitigated	30.7207	1.8155	0.0000	76.1091

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
MT/yr					
Land Use	tons				

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Apartments Mid Rise	132.02	26.7989	1.5838	0.0000	66.3931
Condo/Townhouse	19.32	3.9218	0.2318	0.0000	9.7161
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		30.7207	1.8155	0.0000	76.1091

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	132.02	26.7989	1.5838	0.0000	66.3931
Condo/Townhouse	19.32	3.9218	0.2318	0.0000	9.7161
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		30.7207	1.8155	0.0000	76.1091

9.0 Operational Offroad

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Attachment 3: EMFAC2021 Calculations

Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
	<i>Tons</i>												<i>Metric Tons</i>	
Criteria Pollutants														
2025	0.1822	0.6144	2.0108	0.0076	0.5308	0.0533	0.5841	0.0799	0.0209	0.1008	716.5009	0.0335	0.0591	734.9480
Toxic Air Contaminants (0.5 Mile Trip Length)														
2025	0.1594	0.2082	0.6677	0.0006	0.0258	0.0032	0.0290	0.0039	0.0015	0.0054	61.2453	0.0147	0.0098	64.5364

CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod		Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	Worker VMT	Vendor VMT	Hauling VMT	
	WORKER TRIPS	VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	HAULING TRIPS											
Demolition	25	0	750	0	345	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		8100	0	6900	
Site Preparation	10	0	50	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		540	0	0	
Grading	18	0	270	0	575	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		2916	0	11500	
Trenching	8	0	480	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		5184	0	0	
Fine Grade, Rock and Pave	15	0	225	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		2430	0	0	
Building - Foundation	291	56	5238	1008	170	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		56570.4	7358.4	3400	
Building - Exterior	291	56	52962	10192	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		571989.6	74401.6	0	
Building - Interior/Architectural Coating	58	0	10556	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT		114004.8	0	0	
Building Construction	291	56	52089	10024	4020	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT		562561.2	73175.2	29346	
Architectural Coating	58	0	6960	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT		75168	0	0	
Paving	18	0	450	0	31	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT		4860	0	226.3	
													0	0	0	
Number of Days Per Year																
2025		1/2/25	12/31/25		364		261									
					364								261 Total Workdays			

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/2/2025	2/5/2025	6	30
Site Preparation	2/13/2025	2/18/2025	6	5
Grading	2/20/2025	3/8/2025	6	15
Trenching	3/13/2025	5/21/2025	6	60
Fine Grade, Rock and Pave	3/31/2025	4/16/2025	6	15
Building - Foundation	4/21/2025	5/10/2025	6	18
Building - Exterior	5/19/2025	12/16/2025	6	182
Building - Interior/Architectural Coating	5/19/2025	12/16/2025	6	182
Building Construction	6/6/2025	12/31/2025	6	179
Architectural Coating	6/6/2025	10/23/2025	6	120
Paving	12/1/2025	12/29/2025	6	25

Category	Mix %	Adj	Hauling																		Vendor																		Worker																																																																																																																										
			ROG_DURN						ROG_HTSK						ROG_IDLEX						ROG_RESTL						ROG_RUNEX						ROG_RUNLNS						ROG_STREX						NOX_IDLEX						NOX_RUNEX						NOX_STREX						CO2_IDLEX						CO2_RUNEX						CO2_STREX						SO2_IDLEX						SO2_RUNEX						Road			Dust			PM05_P			PM10_P			PM10_ID			PM10_RU			PM10_STREX			Road			Dust			PM05_P			PM05_P			PM05_IDL			PM05_RUN			PM05_STR			CO2_NBIO			CO2_NBIO			CO2_NBIO			CH4_IDLE			CH4_RUNEX			CH4_STREX			N2O_IDLE			N2O_RUNEX			N2O_STREX		
			HHDT	100.0	1	0.0000161301	4.79646E-05	0.32711902	0	0.0177996	0.00043204	4.20633E-07	3.9652113	1.774057666	2.751173324	5.17629	0.7565356	0.000685	0.0070989	0.013438163	1.69191E-07	0.083222	0.035128	0.002097	0.025031	5.20395E-07	0.028428	0.008782	0.002	0.0239449	4.78E-07	813.97326	1586.83356	0.0171142	0.229861	0.117132109	7.74759E-08	0.131219	0.253304032	1.4215E-05																																																																																																																									
			MHD	0.0	0	0.023318162	0.005603296	0.025250869	0	0.03248334	0.04529114	0.045776126	0.8479275	1.006394097	1.403484797	6.668176	0.2969391	1.000247	0.0014721	0.01511702	8.11155E-05	0.299	0.04526	0.012	0.001762	0.01116	0.0010932	0.04499	0.01584	0.003	0.001685	0.0106942	9.28E-05	158.59304	1213.65456	8.2050726	0.013842	0.0095355	0.00831496	0.024457	0.156018341	0.00585825																																																																																																																							
Vendor	HHDT	50.0	0.5	0.0000161301	4.79646E-05	0.32711902	0	0.0088098	0.00011604	2.10311637	1.8884507	0.837020333	1.475088052	6.558145	0.73782078	0.000642	0.0051405	0.01714383	8.43944E-08	0.040811	0.017584	0.001048	0.0121516	2.40185E-07	0.014214	0.004891	0.001	0.011772	2.38E-07	464.58863	793.41851	0.00830771	0.1144531	0.008304004	8.37379E-08	0.0001	0.124025310	7.1077E-08																																																																																																																											
		50.0	0.5	0.011559268	0.023201165	0.012635434	0	0.01634167	0.02264557	0.02388962	0.4226538	0.50219739	0.70714288	6.234085	0.14864697	0.500214	0.000735	0.0057554851	4.055716E-05	0.021263	0.004	0.000881	0.000689	5.04655E-05	0.020792	0.00315	0.000843	0.0053471	4.64E-05	79.26518	626.42729	4.1025363	0.006921	0.00416775	0.04157098	0.012238	0.0780020171	0.02395013																																																																																																																											
		50.0	0.5	0.021639731	0.00282563	0.017634944	0	0.0251447	0.02286159	0.022888273	2.4605694	1.390225882	2.07732906	2.92233	0.5267375	0.500244	0.0042855	0.012929933	4.06423E-05	0.299	0.083241	0.023564	0.0010329	0.018109	5.0726E-05	0.04499	0.021234	0.003891	0.001842	0.0173196	4.66E-05	486.28315	1400.2441	4.1110934	0.1212851	0.063338005	0.005157137	0.077838	0.204661187	0.00239623																																																																																																																									
		25.0	0.25	0.049646011	0.03889451	0	0	0.0061396	0.00983228	0.123892897	0	0.026971908	0.08916931	0	0.0367767	1.233836	0	0.0009885	0.000207007	0.002305	0.002	0	0.000232	0.000684793	0.0000807	0.0005	0	0.0004172	0.000632	0	0.0019423	0.003448908	0	0.00216838	0.009323201	0	0.00216838	0.009323201																																																																																																																											
		25.0	0.25	0.070852203	0.019532741	0	0	0.002052234	0.05275079	0.088626233	0	0.01535685	0.07730776	0	0.19535352	0.854482	0	0.000809611	0.000207623	0.002215	0.002	0	0.0002323	0.00051217	0.00075	0.0005	0	0.0002071	0.000474	0	0.000648121	0.013232106	0	0.002414182	0.038750181	0	0.005510966	0.03265342																																																																																																																											
	LDT2	50.0	0.5	0.13311644	0.039798032	0	0	0.0000161301	0.008980131	0.130642054	0	0.01609164	0.000581351	0	0.331302	1.853747	0	0.00117474	0.000201336	0.003456	0.004	0	0.00056	0.00294605	0.001458	0.001	0	0.000155	0.000985	0	0.1183714	30.854504	0	0.000010446	0.00300682	0	0.00194250	0.0445456																																																																																																																											
		25.0	0.25	0.049646011	0.03889451	0	0	0.0061396	0.00983228	0.123892897	0	0.026971908	0.08916931	0	0.0367767	1.233836	0	0.0009885	0.000207007	0.002305	0.002	0	0.0002323	0.000684793	0.0000807	0.0005	0	0.0004172	0.000632	0	0.0019423	0.003448908	0	0.00216838	0.009323201	0	0.00216838	0.009323201																																																																																																																											
		25.0	0.25	0.070852203	0.019532741	0	0	0.002052234	0.05275079	0.088626233	0	0.01535685	0.07730776	0	0.19535352	0.854482	0	0.000809611	0.000207623	0.002215	0.002	0	0.0002323	0.00051217	0.00075	0.0005	0	0.0002071	0.000474	0	0.000648121	0.013232106	0	0.002414182	0.038750181	0	0.005510966	0.03265342																																																																																																																											
		1	0.343854358	0.097315873	0	0	0.01213271	0.26154339	0.349222174	0	0.06072098	0.275935452	0	0.8254339	3.424044	0	0.002773201	0.000720366	0.299	0.003088	0.008	0	0.00136	0.0021217316	0.04499	0.002831	0.002	0	0.0012299	0.0001556	0	0.280.53836	72.867194	0	0.00206279	0.0741252868	0	0.005510966	0.03265342																																																																																																																										
		1	0.343854358	0.097315873	0	0	0.01213271	0.26154339	0.349222174	0	0.06072098	0.275935452	0	0.8254339	3.424044	0	0.002773201	0.000720366	0.299	0.003088	0.008	0	0.00136	0.0021217316	0.04499	0.002831	0.002	0	0.0012299	0.0001556	0	0.280.53836	72.867194	0	0.00206279	0.0741252868	0	0.005510966	0.03265342																																																																																																																										

CalEEMod EMFAC2021 Emission Factors Input													Year	2026
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005024	0.002901	0.014329	0.224308568	0.007552	0	0	0.077545	0
A	CH4_RUNEX	0.001675	0.00501	0.002402	0.002962	0.006511	0.00591	0.009525	0.111846137	0.009865	0.533854641	0.154451	0.090415	0.009919
A	CH4_STREX	0.056959	0.091594	0.07317	0.0841	0.020518	0.010947	0.007919	7.49827E-08	0.016116	0.003711567	0.172746	0.004993	0.025168
A	CO_IDLEX	0	0	0	0	0.193382	0.139764	0.664762	5.153655195	0.53297	0	0	1.729088	0
A	CO_RUNEX	0.573078	1.207798	0.74198	0.807097	0.767637	0.490256	0.257149	0.733099915	0.401188	6.307010922	11.99329	0.836984	0.927158
A	CO_STREX	2.554061	4.515511	3.238665	3.39519	2.163001	1.175504	0.934813	0.000737725	1.778436	0.497532984	7.931677	0.675054	2.264736
A	CO2_NBIO_IDLEX	0	0	0	0	8.476906	13.60976	156.6958	795.6699429	88.15791	0	0	188.587	0
A	CO2_NBIO_RUNEX	231.7559	313.0586	319.406	383.543	747.6667	794.4808	1196.529	1554.973392	1344.054	1064.852599	186.8446	1007.354	1674.317
A	CO2_NBIO_STREX	60.09545	82.06715	81.79112	97.42712	17.33995	9.379616	7.914622	0.013527798	14.24203	3.148221534	46.30646	3.836494	21.6173
A	NOX_IDLEX	0	0	0	0	0.04434	0.086409	0.801998	3.849082168	0.3605	0	0	1.293171	0
A	NOX_RUNEX	0.030375	0.103204	0.056004	0.074529	0.516639	0.725632	0.906229	1.701647234	0.930849	0.294278253	0.54585	2.244119	1.44219
A	NOX_STREX	0.20795	0.337562	0.292244	0.347081	0.400976	0.21716	1.391692	2.760133946	0.991531	0.038127875	0.123182	0.502734	0.298756
A	PM10_IDLEX	0	0	0	0	0.000687	0.001406	0.001445	0.002012959	0.00039	0	0	0.001113	0
A	PM10_PMBW	0.007122	0.009211	0.008856	0.008951	0.077204	0.090087	0.045088	0.081458247	0.049896	0.125580022	0.012	0.044699	0.044944
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009418	0.010663	0.012	0.035131691	0.012	0.044105924	0.004	0.010543	0.013261
A	PM10_RUNEX	0.001071	0.001706	0.001243	0.001247	0.012107	0.020463	0.009635	0.024769283	0.014798	0.005547054	0.001945	0.011633	0.027752
A	PM10_STREX	0.001791	0.002615	0.002002	0.001984	0.00019	8.13E-05	9.63E-05	3.29375E-07	0.000129	1.21095E-05	0.00347	4.23E-05	0.000281
A	PM25_IDLEX	0	0	0	0	0.000657	0.001346	0.001382	0.001919468	0.000373	0	0	0.001064	0
A	PM25_PMBW	0.002493	0.003224	0.0031	0.003133	0.027021	0.03153	0.015781	0.028510387	0.017464	0.043953008	0.0042	0.015645	0.01573
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002355	0.002666	0.003	0.008782923	0.003	0.011026481	0.001	0.002636	0.003315
A	PM25_RUNEX	0.000986	0.00157	0.001144	0.001149	0.011546	0.019561	0.00921	0.02369428	0.014149	0.005303299	0.001818	0.011114	0.026508
A	PM25_STREX	0.001647	0.002404	0.001841	0.001824	0.000174	7.48E-05	8.86E-05	3.02848E-07	0.000118	1.11343E-05	0.003256	3.89E-05	0.000258
A	ROG_DIURN	0.254504	0.529723	0.279092	0.322903	0.116726	0.060196	0.021313	0.000106002	0.073271	0.010212124	3.854231	0.032962	28.55295
A	ROG_HTSK	0.07369	0.147578	0.075291	0.084543	0.028726	0.014862	0.005106	3.36143E-05	0.016123	0.003780717	3.558543	0.008313	7.360966
A	ROG_IDLEX	0	0	0	0	0.020461	0.015058	0.024261	0.32445582	0.04037	0	0	0.189085	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.006207	0.021876	0.009232	0.012163	0.073128	0.102722	0.027662	0.017018907	0.041494	0.059153068	0.991178	0.051281	0.070828
A	ROG_RUNLS	0.190989	0.413908	0.208399	0.244508	0.165357	0.082688	0.042018	0.000302729	0.081242	0.00798618	3.769688	0.021611	0.176029
A	ROG_STREX	0.254258	0.45831	0.332523	0.408327	0.100626	0.053154	0.043043	4.06848E-07	0.08541	0.013136414	1.267526	0.028372	0.103602
A	SO2_IDLEX	0	0	0	0	8.25E-05	0.00013	0.001452	0.006923512	0.000833	0	0	0.001712	0
A	SO2_RUNEX	0.002291	0.003095	0.003157	0.003789	0.0073	0.007651	0.011344	0.014049606	0.012819	0.008586151	0.001847	0.009359	0.016412
A	SO2_STREX	0.000594	0.000811	0.000809	0.000963	0.000171	9.27E-05	7.82E-05	1.33736E-07	0.000141	3.11234E-05	0.000458	3.79E-05	0.000214
A	TOG_DIURN	0.254504	0.529723	0.279092	0.322903	0.116726	0.060196	0.021313	0.000106002	0.073271	0.010212124	0.085098	0.032962	28.55295
A	TOG_HTSK	0.07369	0.147578	0.075291	0.084543	0.028726	0.014862	0.005106	3.36143E-05	0.016123	0.003780717	3.558543	0.008313	7.360966
A	TOG_IDLEX	0	0	0	0	0.028987	0.020219	0.041853	0.579654551	0.053441	0	0	0.308305	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.009046	0.031907	0.013457	0.017701	0.08958	0.119	0.040924	0.131035808	0.057178	0.601092032	1.200425	0.149659	0.091829
A	TOG_RUNLS	0.190989	0.413908	0.208399	0.244508	0.165357	0.082688	0.042018	0.000302729	0.081242	0.00798618	3.769688	0.021611	0.176029
A	TOG_STREX	0.27838	0.501792	0.364071	0.447067	0.110173	0.058197	0.047127	4.45447E-07	0.093513	0.01438272	1.378329	0.031064	0.113431
A	N2O_IDLEX	0	0	0	0	0.00063	0.00168	0.024186	0.128345993	0.012682	0	0	0.024778	0
A	N2O_RUNEX	0.003678	0.007971	0.005343	0.006968	0.039725	0.080555	0.153578	0.248265947	0.156351	0.163683708	0.038475	0.124	0.068939
A	N2O_STREX	0.027983	0.036165	0.034432	0.036101	0.033064	0.017628	0.005689	8.0417E-06	0.013951	0.006034849	0.007381	0.004502	0.032161

CalEEMod EMFAC2021 Fleet Mix Input												Year	2026
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Condo/Townhouse	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Enclosed Parking with Elevator	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Parking Lot	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251

Adjustment Factors	Vehicle							
	Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	1.89020752	1.35208E-05	133.7551311	0.0001234	37.81927211	0.000271	
HHDT	DSL	8867.7948	0.063432193	1016011.772	0.9370067	130548.9889	0.93383	
HHDT	ELEC	110.53021	0.000790633	11535.56622	0.0106386	1443.077984	0.010322	
HHDT	NG	863.460788	0.006176418	56635.38916	0.0522314	7769.707198	0.055577	
		9843.676		1084316.482		139799.5934		
LDA	GAS	598869.79	0.188087055	22031465.99	0.8579225	2780456.286	0.873258	
LDA	DSL	1478.94439	0.000464492	42434.32107	0.0016524	6277.404518	0.001972	
LDA	ELEC	64495.2374	0.020256021	2739705.459	0.1066863	312996.4352	0.098303	
LDA	PIH	20380.4343	0.006400884	866414.1348	0.0337388	84273.09573	0.026468	
		685224.406		25680019.9		3184003.221		
LDT1	GAS	50750.4663	0.2227592	1625960.476	0.9897832	225981.5443	0.991902	
LDT1	DSL	18.4777091	8.11043E-05	256.5587046	0.0001562	50.46000376	0.000221	
LDT1	ELEC	263.582249	0.001156942	10628.88084	0.0064702	1254.204016	0.005505	
LDT1	PIH	130.681887	0.000573602	5898.081605	0.0035904	540.3696012	0.002372	
		51163.2081		1642743.998		227826.578		
LDT2	GAS	296178.924	0.20930348	10561284.8	0.9761727	1383933.976	0.977997	
LDT2	DSL	1079.58935	0.000762923	39200.14241	0.0036232	5104.360187	0.003607	
LDT2	ELEC	2705.07863	0.001911623	90693.21971	0.0083827	13682.37248	0.009669	
LDT2	PIH	2986.35294	0.002110393	127896.2709	0.0118214	12348.56941	0.008726	
		302949.945		10819074.44		1415069.278		
LHDT1	GAS	19567.3461	0.045442701	734252.9018	0.6249776	291524.3015	0.677029	
LHDT1	DSL	10635.3066	0.024699162	416619.2958	0.3546159	133778.7779	0.310684	
LHDT1	ELEC	378.059313	0.000877995	23974.57119	0.0204066	5290.737608	0.012287	
		30580.712	0.071019859	1174846.769		430593.817		
LHDT2	GAS	2513.65139	0.025065399	91174.02508	0.3142883	37449.6603	0.373437	
LHDT2	DSL	4995.25765	0.049811253	193100.7206	0.6656423	62834.05723	0.626563	
LHDT2	ELEC	96.3837305	0.000961111	5822.064359	0.0200694	1278.564611	0.012749	
		7605.29277	0.075837763	290096.81		100283.7175		
MCY	GAS	28797.0402	0.022079204	167092.4818	1	57594.08046	1	
MDV	GAS	162557.871	0.206502619	5631323.146	0.9567528	753924.3557	0.957735	
MDV	DSL	2430.29858	0.003087288	84111.5401	0.0142904	11337.22426	0.014402	
MDV	ELEC	2850.95624	0.003621664	95858.34981	0.0162862	14435.41314	0.018338	
MDV	PIH	1813.35149	0.00230356	74577.72271	0.0126706	7498.208428	0.009525	
		169652.477		5885870.759		787195.2015		
MH	GAS	2263.18626	6.910777091	21108.37627	0.6847412	226.409153	0.691354	
MH	DSL	1010.77355	3.086458598	9718.417172	0.3152588	101.0773548	0.308646	
		3273.9598		30826.79344		327.4865078		
MHDT	GAS	1410.72587	0.008877802	72468.64229	0.138924	28225.80314	0.177627	
MHDT	DSL	10675.1143	0.067179283	435455.3677	0.8347775	127504.1973	0.802393	
MHDT	ELEC	167.584141	0.001054619	8816.663208	0.0169017	2173.174133	0.013676	
MHDT	NG	107.631411	0.000677332	4901.770989	0.0093968	1001.681745	0.006304	
		12361.0558		521642.4442		158904.8563		
OBUS	GAS	419.199707	0.022896962	18162.11175	0.222027	8387.347733	0.458122	
OBUS	DSL	949.045188	0.051837469	62674.48039	0.766179	9750.024999	0.532553	
OBUS	ELEC	4.48415939	0.000244928	364.7881281	0.0044594	89.71906104	0.004901	
OBUS	NG	9.10124392	0.000497116	599.9791039	0.0073346	81.00107088	0.004424	
		1381.8303		81801.35938		18308.09286		
SBUS	GAS	183.793304	0.016745925	9054.55067	0.3599899	735.1732154	0.066984	
SBUS	DSL	674.99811	0.061500976	15210.89393	0.6047531	9773.972631	0.890534	
SBUS	ELEC	7.58722201	0.000691293	244.2394962	0.0097104	87.39442404	0.007963	
SBUS	NG	26.1646758	0.002383937	642.552257	0.0255465	378.8645055	0.034519	
		892.543311		25152.23635		10975.40478		
UBUS	GAS	46.3552203	0.021676301	4840.86478	0.0818022	185.4208811	0.086705	
UBUS	DSL	396.770048	0.185534807	44084.04198	0.744944	1587.080193	0.742139	
UBUS	ELEC	28.6595887	0.11400839	2995.55797	0.4127709	114.6383548	0.456034	
UBUS	NG	62.8453498	0.029387298	7257.192256	0.122634	251.3813993	0.117549	
		534.630207		59177.65698		2138.520829		

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: County

Region: Santa Clara

Calendar Year: 2025
Season: Annual

Vehicle Classification: EMEAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN, PHEV calculated based on total VMT.

www.w3.org/2001/XMLSchema#string">, any other `xs:string` value, or `xs:float`, respectively. The `xs:float` grammar has two variants: standard IEEE 754 floating-point numbers, and rational numbers, as defined by the `xs:decimal` grammar. Any `xs:float` value is also a valid `xs:decimal` value.

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: County

Region: Santa Clara

Calendar Year: 2026
Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Attachment 4: Project Construction Emissions and Health Risk Calculations

Construction Health Risk Assessment and Calculations

210 Baypointe Parkway, San Jose, CA

Year 2025	Unmitigated DPM			Unmitigated Fug PM2.5		
	DPM	EMFAC2021	Emissions	Fug PM2.5	EMFAC2021	Emissions
	0.1282	0.0032	0.1314	0.0192	0.0039	0.0231
Year 2025	Mitigated DPM	EMFAC2021	Mitigated Emissions	Mitigated Fug PM2.5	EMFAC2021	Mitigated Emissions
	0.0196	0.0032	0.0228	0.0086	0.0039	0.0125

210 Baypointe Parkway, San Jose, CA

- Construction Health Impact Modeling

Source Parameters for Point Sources Used in Construction Modeling

Source	Stack Height (ft)	Stack Diam (in)	Exhaust Temp (F)	Volume Flow (acfmin)	Velocity (ft/min)	Velocity (ft/sec)
Construction Equipment	9.0	2.5	918	632	18540	309.0
Source	Stack Height (m)	Stack Diam (m)	Exhaust Temp (K)			Velocity (ft/sec)
Construction Equipment	2.74	0.064	765.37			94.2

210 Baypointe Parkway, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates

DPM Emissions								Emissions per Point Source
Construction	DPM	Source	No.					
Year	Activity	(ton/year)	Type	Sources	(lb/yr)	(lb/hr)	(g/s)	(g/s)
2025	Construction	0.1314	Point	351	262.9	0.07327	9.23E-03	2.63E-05

Emissions assumed to be evenly distributed over each construction areas

$$\begin{aligned} \text{hr/day} &= 11.5 && (\text{M-F 7am-7pm, Sat 8am - 5pm}) \\ \text{days/yr} &= 312 \\ \text{hours/year} &= 3588 \end{aligned}$$

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

DPM Emissions								Emissions per Point Source
Construction	DPM	Source	No.					
Year	Activity	(ton/year)	Type	Sources	(lb/yr)	(lb/hr)	(g/s)	(g/s)
2025	Construction	0.0228	Point	351	45.7	0.01273	1.60E-03	4.57E-06

Emissions assumed to be evenly distributed over each construction areas

$$\begin{aligned} \text{hr/day} &= 11.5 && (\text{M-F 7am-7pm, Sat 8am - 5pm}) \\ \text{days/yr} &= 312 \\ \text{hours/year} &= 3588 \end{aligned}$$

210 Baypointe Parkway, San Jose, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling

PM2.5 Emissions							DPM Modeled	Emission
Construction	Area						Area	Rate
Year	Activity	Source	(ton/year)	(lb/yr)	(lb/hr)	(g/s)	(m ²)	g/s/m ²
2025	Construction	CON_FUG	0.0231	46.2	0.01286	1.62E-03	17010.1	9.53E-08

Emissions assumed to be evenly distributed over each construction areas

$$\begin{aligned} \text{hr/day} &= 11.5 && (\text{M-F 7am-7pm, Sat 8am - 5pm}) \\ \text{days/yr} &= 312 \\ \text{hours/year} &= 3588 \end{aligned}$$

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation

PM2.5 Emissions							DPM Modeled	Emission
Construction	Area						Area	Rate
Year	Activity	Source	(ton/year)	(lb/yr)	(lb/hr)	(g/s)	(m ²)	g/s/m ²
2025	Construction	CON_FUG	0.0125	25.0	0.00697	8.78E-04	17010.1	5.16E-08

Emissions assumed to be evenly distributed over each construction areas

$$\begin{aligned} \text{hr/day} &= 11.5 && (\text{M-F 7am-7pm, Sat 8am - 5pm}) \\ \text{days/yr} &= 312 \\ \text{hours/year} &= 3588 \end{aligned}$$

210 Baypointe Parkway, San Jose, CA
- Construction Health Impact Summary

Maximum Impacts at MEI Residential Location - Without Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk* (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration* ($\mu\text{g}/\text{m}^3$)
	Exhaust PM10/DPM ($\mu\text{g}/\text{m}^3$)	Fugitive PM2.5 ($\mu\text{g}/\text{m}^3$)	Infant/Child	Adult		
	2025	0.2384	0.0681	42.40	0.68	0.05

* Maximum cancer risk and maximum PM2.5 concentration occur the same receptor on different levels.

Maximum Impacts at MEI Residential Location - With Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk* (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration* ($\mu\text{g}/\text{m}^3$)
	Exhaust PM10/DPM ($\mu\text{g}/\text{m}^3$)	Fugitive PM2.5 ($\mu\text{g}/\text{m}^3$)	Infant/Child	Adult		
	2025	0.0414	0.0188	7.37	0.12	0.01

* Maximum cancer risk and maximum PM2.5 concentration occur the same receptor on different levels.

- Tier 4 Interim Engines, Electric cranes, generators, and compressors, and BMPs Mitigation

210 Baypointe Parkway, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{Air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{Air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Parameter	Infant/Child			Adult	
	Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
CPF =		1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information		Age Sensitivity Factor	Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum						
			DPM Conc (ug/m3)				Modeled				Hazard Index	Fugitive PM2.5	Total PM2.5				
			Year	Annual			Year	Annual									
0	0.25	-0.25 - 0*	2025	0.1455	10	1.98	2025	0.1455	-	-							
1	1	0 - 1	2025	0.1455	10	23.90	2025	0.1455	1	0.42	0.03	0.11	0.25				
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00							
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00							
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00							
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00							
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00							
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00							
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00							
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00							
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00							
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00							
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00							
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00							
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00							
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00							
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00							
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00							
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00							
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00							
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00							
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00							
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00							
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00							
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00							
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00							
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00							
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00							
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00							
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00							
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00							
Total Increased Cancer Risk						25.88				0.42							

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height (2nd Floor Level)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{Air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{Air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Parameter	Infant/Child			Adult	
	Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
CPF =		1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information		Age Sensitivity Factor	Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum						
			DPM Conc (ug/m3)				Modeled				Hazard Index	Fugitive PM2.5	Total PM2.5				
			Year	Annual			Year	Annual									
0	0.25	-0.25 - 0*	2025	0.2189	10	2.98	2025	0.2189	-	-							
1	1	0 - 1	2025	0.2189	10	35.95	2025	0.2189	1	0.63	0.04	0.07	0.29				
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00							
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00							
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00							
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00							
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00							
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00							
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00							
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00							
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00							
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00							
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00							
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00							
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00							
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00							
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00							
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00							
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00							
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00							
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00							
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00							
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00							
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00							
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00							
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00							
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00							
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00							
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00							
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00							
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00							
Total Increased Cancer Risk						38.93				0.63							

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height (3rd Floor Level)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{Air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{Air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Parameter	Infant/Child			Adult	
	Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
CPF =		1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information		Age Sensitivity Factor	Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum						
			DPM Conc (ug/m3)				Modeled				Hazard Index	Fugitive PM2.5	Total PM2.5				
			Year	Annual			Year	Annual									
0	0.25	-0.25 - 0*	2025	0.2384	10	3.24	2025	0.2384	-	-							
1	1	0 - 1	2025	0.2384	10	39.15	2025	0.2384	1	0.68	0.05	0.03	0.27				
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00							
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00							
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00							
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00							
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00							
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00							
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00							
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00							
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00							
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00							
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00							
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00							
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00							
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00							
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00							
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00							
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00							
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00							
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00							
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00							
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00							
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00							
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00							
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00							
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00							
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00							
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00							
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00							
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00							
Total Increased Cancer Risk						42.40						0.68					

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 10.7 meter receptor height (4th Floor Level)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{Air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{Air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Parameter	Infant/Child			Adult	
	Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
CPF =		1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information		Age Sensitivity Factor	Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum						
			DPM Conc (ug/m3)				Modeled				Hazard Index	Fugitive PM2.5	Total PM2.5				
			Year	Annual			Year	Annual									
0	0.25	-0.25 - 0*	2025	0.1772	10	2.41	2025	0.1772	-	-							
1	1	0 - 1	2025	0.1772	10	29.11	2025	0.1772	1	0.51							
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00							
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00							
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00							
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00							
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00							
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00							
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00							
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00							
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00							
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00							
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00							
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00							
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00							
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00							
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00							
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00							
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00							
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00							
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00							
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00							
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00							
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00							
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00							
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00							
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00							
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00							
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00							
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00							
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00							
Total Increased Cancer Risk						31.52				0.51							

* Third trimester of pregnancy

**210 Baypointe Parkway, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height (2nd Floor Level)**

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{Air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{Air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Parameter	Infant/Child			Adult	
	Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
CPF =		1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information		Age Sensitivity Factor	Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum						
			DPM Conc (ug/m3)				Modeled				Hazard Index	Fugitive PM2.5	Total PM2.5				
			Year	Annual			Year	Annual									
0	0.25	-0.25 - 0*	2025	0.0380	10	0.52	2025	0.0380	-	-							
1	1	0 - 1	2025	0.0380	10	6.25	2025	0.0380	1	0.11	0.01	0.04	0.07				
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00							
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00							
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00							
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00							
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00							
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00							
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00							
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00							
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00							
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00							
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00							
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00							
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00							
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00							
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00							
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00							
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00							
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00							
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00							
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00							
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00							
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00							
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00							
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00							
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00							
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00							
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00							
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00							
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00							
Total Increased Cancer Risk						6.77				0.11							

* Third trimester of pregnancy

**210 Baypointe Parkway, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 7.6 meter receptor height (3rd Floor Level)**

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Parameter	Infant/Child			Adult	
	Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
CPF =		1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information		Age Sensitivity Factor	Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum						
			DPM Conc (ug/m3)				Modeled				Hazard Index	Fugitive PM2.5	Total PM2.5				
			Year	Annual			Year	Annual									
0	0.25	-0.25 - 0*	2025	0.0414	10	0.56	2025	0.0414	-	-	0.01	0.02	0.06				
1	1	0 - 1	2025	0.0414	10	6.80	2025	0.0414	1	0.12							
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00							
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00							
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00							
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00							
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00							
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00							
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00							
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00							
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00							
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00							
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00							
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00							
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00							
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00							
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00							
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00							
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00							
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00							
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00							
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00							
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00							
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00							
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00							
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00							
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00							
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00							
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00							
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00							
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00							
Total Increased Cancer Risk						7.37				0.12							

* Third trimester of pregnancy

Attachment 5: Health Risk Modeling Information and Calculations

CT-EMFAC2017 Emissions Factors for Santa Clara County 2025

File Name: 210 Baypointe - Santa Clara (SF) - 2025 - Annual.EF

CT-EMFAC2017 Version: 1.0.2.27401

Run Date: 1/5/2023 9:54

Area: Santa Clara (SF)

Analysis Year: 2025

Season: Annual

Vehicle Category	VMT	Diesel VMT	Gas VMT
	Fraction	Fraction	Fraction
	Across	Within	Within
Truck 1	0.015	0.502	0.498
Truck 2	0.02	0.936	0.048
Non-Truck	0.965	0.015	0.951

Road Type: Major/Collector

Silt Loading Factor: CARB 0.032 g/m2

Precipitation Correction: CARB P = 64 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph
PM2.5	0.008489	0.005501	0.00373	0.002665	0.00202	0.001628	0.001397	0.001277	0.00124	0.001271
TOG	0.172619	0.113109	0.076066	0.0539	0.040836	0.03264	0.027389	0.02411	0.022258	0.021553
Diesel PM	0.000788	0.00065	0.000505	0.000405	0.00035	0.000326	0.000328	0.000351	0.000395	0.000458

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.255395

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002108

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.016801

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.014826

=====END=====

E. Tasman Drive - Traffic Emissions and Health Risk Calculations

Analysis Year = **2025**

Vehicle Type	2018 Caltrans Vehicles (veh/day)	2025 Vehicles (veh/day)
Total	31,245	33,432

Increase From 2018 1.07

Vehicles/Direction 16,716

Avg Vehicles/Hour/Direction 697

Traffic Data Year = **2018**

Project Traffic Data - Background Plus Project ADT	AADT Total	Total Truck
Zanker Road & Tasman Drive	31,245	1,097

Percent of Total Vehicles 3.51%

Traffic Increase per Year (%) = 1.00%

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
DPM_EB_TAS	E. Tasman Drive Eastbound	EB	2	678.6	0.42	13.3	43.7	3.4	40	16,716
DPM_WB_TAS	E. Tasman Drive Westbound	WB	2	716.1	0.44	13.3	43.7	3.4	40	16,716
								Total		33,432

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00035			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and DPM Emissions - DPM_EB_TAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.93%	658	2.70E-05	9	6.41%	1071	4.40E-05	17	5.55%	928	3.81E-05
2	2.62%	438	1.80E-05	10	7.36%	1231	5.06E-05	18	3.16%	528	2.17E-05
3	2.85%	477	1.96E-05	11	6.34%	1060	4.36E-05	19	2.36%	394	1.62E-05
4	3.31%	553	2.27E-05	12	6.92%	1157	4.75E-05	20	0.87%	145	5.95E-06
5	2.17%	362	1.49E-05	13	6.29%	1052	4.32E-05	21	3.09%	516	2.12E-05
6	3.36%	562	2.31E-05	14	6.23%	1042	4.28E-05	22	4.12%	688	2.83E-05
7	6.00%	1002	4.12E-05	15	5.15%	861	3.54E-05	23	2.58%	431	1.77E-05
8	4.58%	766	3.15E-05	16	3.84%	642	2.64E-05	24	0.92%	154	6.34E-06
								Total		16,716	

2025 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_TAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.93%	658	2.85E-05	9	6.41%	1071	4.65E-05	17	5.55%	928	4.03E-05
2	2.62%	438	1.90E-05	10	7.36%	1231	5.34E-05	18	3.16%	528	2.29E-05
3	2.85%	477	2.07E-05	11	6.34%	1060	4.60E-05	19	2.36%	394	1.71E-05
4	3.31%	553	2.40E-05	12	6.92%	1157	5.02E-05	20	0.87%	145	6.28E-06
5	2.17%	362	1.57E-05	13	6.29%	1052	4.56E-05	21	3.09%	516	2.24E-05
6	3.36%	562	2.44E-05	14	6.23%	1042	4.52E-05	22	4.12%	688	2.98E-05
7	6.00%	1002	4.35E-05	15	5.15%	861	3.74E-05	23	2.58%	431	1.87E-05
8	4.58%	766	3.32E-05	16	3.84%	642	2.78E-05	24	0.92%	154	6.69E-06
								Total		16,716	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
PM25_EB_TAS	E. Tasman Drive Eastbound	EB	2	678.6	0.42	13.3	44	1.3	40	16,716
PM25_WB_TAS	E. Tasman Drive Westbound	WB	2	716.1	0.44	13.3	44	1.3	40	16,716
										Total 33,432

Emission Factors - PM2.5

Speed Category	1	2	3	4
	Travel Speed (mph)	40	0.001277	

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM25_EB_TAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	192	2.87E-05	9	7.11%	1189	1.78E-04	17	7.39%	1235	1.85E-04
2	0.42%	70	1.05E-05	10	4.39%	733	1.10E-04	18	8.18%	1367	2.04E-04
3	0.41%	68	1.02E-05	11	4.66%	779	1.17E-04	19	5.69%	952	1.42E-04
4	0.26%	43	6.50E-06	12	5.89%	984	1.47E-04	20	4.28%	715	1.07E-04
5	0.50%	83	1.24E-05	13	6.15%	1028	1.54E-04	21	3.25%	544	8.14E-05
6	0.91%	152	2.27E-05	14	6.04%	1009	1.51E-04	22	3.30%	551	8.24E-05
7	3.79%	633	9.47E-05	15	7.01%	1172	1.75E-04	23	2.46%	411	6.15E-05
8	7.77%	1298	1.94E-04	16	7.14%	1194	1.79E-04	24	1.86%	312	4.66E-05
										Total 16,716	

2025 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_WB_TAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	192	3.03E-05	9	7.11%	1189	1.88E-04	17	7.39%	1235	1.95E-04
2	0.42%	70	1.11E-05	10	4.39%	733	1.16E-04	18	8.18%	1367	2.16E-04
3	0.41%	68	1.08E-05	11	4.66%	779	1.23E-04	19	5.69%	952	1.50E-04
4	0.26%	43	6.86E-06	12	5.89%	984	1.55E-04	20	4.28%	715	1.13E-04
5	0.50%	83	1.31E-05	13	6.15%	1028	1.62E-04	21	3.25%	544	8.59E-05
6	0.91%	152	2.39E-05	14	6.04%	1009	1.59E-04	22	3.30%	551	8.70E-05
7	3.79%	633	9.99E-05	15	7.01%	1172	1.85E-04	23	2.46%	411	6.49E-05
8	7.77%	1298	2.05E-04	16	7.14%	1194	1.88E-04	24	1.86%	312	4.92E-05
										Total 16,716	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEXH_EB_TAS	E. Tasman Drive Eastbound	EB	2	678.6	0.42	13.3	44	1.3	40	16,716
TEXH_WB_TAS	E. Tasman Drive Westbound	WB	2	716.1	0.44	13.3	44	1.3	40	16,716
									Total	33,432

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.02411			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_TAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	192	5.43E-04	9	7.11%	1189	3.36E-03	17	7.39%	1235	3.49E-03
2	0.42%	70	1.99E-04	10	4.39%	733	2.07E-03	18	8.18%	1367	3.86E-03
3	0.41%	68	1.93E-04	11	4.66%	779	2.20E-03	19	5.69%	952	2.69E-03
4	0.26%	43	1.23E-04	12	5.89%	984	2.78E-03	20	4.28%	715	2.02E-03
5	0.50%	83	2.35E-04	13	6.15%	1028	2.90E-03	21	3.25%	544	1.54E-03
6	0.91%	152	4.28E-04	14	6.04%	1009	2.85E-03	22	3.30%	551	1.56E-03
7	3.79%	633	1.79E-03	15	7.01%	1172	3.31E-03	23	2.46%	411	1.16E-03
8	7.77%	1298	3.67E-03	16	7.14%	1194	3.37E-03	24	1.86%	312	8.80E-04
								Total		16,716	

2025 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_TAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	192	5.73E-04	9	7.11%	1189	3.54E-03	17	7.39%	1235	3.68E-03
2	0.42%	70	2.10E-04	10	4.39%	733	2.19E-03	18	8.18%	1367	4.07E-03
3	0.41%	68	2.03E-04	11	4.66%	779	2.32E-03	19	5.69%	952	2.84E-03
4	0.26%	43	1.30E-04	12	5.89%	984	2.93E-03	20	4.28%	715	2.13E-03
5	0.50%	83	2.47E-04	13	6.15%	1028	3.06E-03	21	3.25%	544	1.62E-03
6	0.91%	152	4.52E-04	14	6.04%	1009	3.01E-03	22	3.30%	551	1.64E-03
7	3.79%	633	1.89E-03	15	7.01%	1172	3.49E-03	23	2.46%	411	1.23E-03
8	7.77%	1298	3.87E-03	16	7.14%	1194	3.56E-03	24	1.86%	312	9.29E-04
								Total		16,716	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEVAP_EB_TAS	E. Tasman Drive Eastbound	EB	2	678.6	0.42	13.3	44	1.3	40	16,716
TEVAP_WB_TAS	E. Tasman Drive Westbound	WB	2	716.1	0.44	13.3	44	1.3	40	16,716
									Total	33,432

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.25540			
Emissions per Vehicle per Mile (g/VMT)	0.03138			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_TAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	192	7.06E-04	9	7.11%	1189	4.37E-03	17	7.39%	1235	4.54E-03
2	0.42%	70	2.59E-04	10	4.39%	733	2.70E-03	18	8.18%	1367	5.02E-03
3	0.41%	68	2.51E-04	11	4.66%	779	2.86E-03	19	5.69%	952	3.50E-03
4	0.26%	43	1.60E-04	12	5.89%	984	3.62E-03	20	4.28%	715	2.63E-03
5	0.50%	83	3.05E-04	13	6.15%	1028	3.78E-03	21	3.25%	544	2.00E-03
6	0.91%	152	5.57E-04	14	6.04%	1009	3.71E-03	22	3.30%	551	2.03E-03
7	3.79%	633	2.33E-03	15	7.01%	1172	4.31E-03	23	2.46%	411	1.51E-03
8	7.77%	1298	4.77E-03	16	7.14%	1194	4.39E-03	24	1.86%	312	1.15E-03
								Total		16,716	

2025 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_TAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	192	7.45E-04	9	7.11%	1189	4.61E-03	17	7.39%	1235	4.79E-03
2	0.42%	70	2.73E-04	10	4.39%	733	2.84E-03	18	8.18%	1367	5.30E-03
3	0.41%	68	2.65E-04	11	4.66%	779	3.02E-03	19	5.69%	952	3.69E-03
4	0.26%	43	1.69E-04	12	5.89%	984	3.82E-03	20	4.28%	715	2.77E-03
5	0.50%	83	3.22E-04	13	6.15%	1028	3.99E-03	21	3.25%	544	2.11E-03
6	0.91%	152	5.88E-04	14	6.04%	1009	3.92E-03	22	3.30%	551	2.14E-03
7	3.79%	633	2.46E-03	15	7.01%	1172	4.55E-03	23	2.46%	411	1.60E-03
8	7.77%	1298	5.04E-03	16	7.14%	1194	4.63E-03	24	1.86%	312	1.21E-03
								Total		16,716	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions

Year = **2025**

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
FUG_EB_TAS	E. Tasman Drive Eastbound	EB	2	678.6	0.42	13.3	44	1.3	40	16,716
FUG_WB_TAS	E. Tasman Drive Westbound	WB	2	716.1	0.44	13.3	44	1.3	40	16,716
								Total		33,432

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4	
	Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211				
Brake Wear - Emissions per Vehicle (g/VMT)	0.01680				
Road Dust - Emissions per Vehicle (g/VMT)	0.01483				
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03374				

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_TAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	192	7.59E-04	9	7.11%	1189	4.70E-03	17	7.39%	1235	4.88E-03
2	0.42%	70	2.79E-04	10	4.39%	733	2.90E-03	18	8.18%	1367	5.40E-03
3	0.41%	68	2.70E-04	11	4.66%	779	3.08E-03	19	5.69%	952	3.76E-03
4	0.26%	43	1.72E-04	12	5.89%	984	3.89E-03	20	4.28%	715	2.82E-03
5	0.50%	83	3.28E-04	13	6.15%	1028	4.06E-03	21	3.25%	544	2.15E-03
6	0.91%	152	5.99E-04	14	6.04%	1009	3.99E-03	22	3.30%	551	2.18E-03
7	3.79%	633	2.50E-03	15	7.01%	1172	4.63E-03	23	2.46%	411	1.63E-03
8	7.77%	1298	5.13E-03	16	7.14%	1194	4.72E-03	24	1.86%	312	1.23E-03
								Total		16,716	

2025 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_TAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	192	8.01E-04	9	7.11%	1189	4.96E-03	17	7.39%	1235	5.15E-03
2	0.42%	70	2.94E-04	10	4.39%	733	3.06E-03	18	8.18%	1367	5.70E-03
3	0.41%	68	2.85E-04	11	4.66%	779	3.25E-03	19	5.69%	952	3.97E-03
4	0.26%	43	1.81E-04	12	5.89%	984	4.10E-03	20	4.28%	715	2.98E-03
5	0.50%	83	3.46E-04	13	6.15%	1028	4.29E-03	21	3.25%	544	2.27E-03
6	0.91%	152	6.32E-04	14	6.04%	1009	4.21E-03	22	3.30%	551	2.30E-03
7	3.79%	633	2.64E-03	15	7.01%	1172	4.89E-03	23	2.46%	411	1.72E-03
8	7.77%	1298	5.41E-03	16	7.14%	1194	4.98E-03	24	1.86%	312	1.30E-03
								Total		16,716	

**210 Baypointe Parkway, San Jose, CA - E. Tasman Drive Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptors, PM2.5 4.5m, Cancer Risk 7.6m receptor heights**

Emission Year	2025
Receptor Information	Construction MEI receptors
Number of Receptors	2
Receptor Height	PM2.5 4.5m, Cancer Risk 7.6m
Receptor Distances	At Construction MEI locations

Meteorological Conditions

BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0009	0.0462	0.0600

Project MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0823	0.0793	0.0030

210 Baypointe Parkway, San Jose, CA - E. Tasman Drive Cancer Risk & PM2.5
Impacts at Construction MEIs - PM2.5 4.5m (2nd Floor), Cancer Risk 7.6m (3rd Floor) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (ug/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Parameter	Infant/Child			Adult	
	Age →>	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information		Age Sensitivity Factor	Concentration (ug/m ³)			Cancer Risk (per million)			TOTAL		
		Age	Year		DPM	Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG			
						TOG	TOG						
0	0.25	-0.25 - 0*	2025	10	0.0009	0.0462	0.0600	0.013	0.004	0.0003	0.02		
1	1	0 - 1	2025	10	0.0009	0.0462	0.0600	0.153	0.043	0.0033	0.20		
2	1	1 - 2	2026	10	0.0009	0.0462	0.0600	0.153	0.043	0.0033	0.20		
3	1	2 - 3	2027	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
4	1	3 - 4	2028	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
5	1	4 - 5	2029	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
6	1	5 - 6	2030	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
7	1	6 - 7	2031	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
8	1	7 - 8	2032	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
9	1	8 - 9	2033	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
10	1	9 - 10	2034	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
11	1	10 - 11	2035	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
12	1	11 - 12	2036	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
13	1	12 - 13	2037	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
14	1	13 - 14	2038	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
15	1	14 - 15	2039	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
16	1	15 - 16	2040	3	0.0009	0.0462	0.0600	0.024	0.007	0.0005	0.03		
17	1	16-17	2041	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
18	1	17-18	2042	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
19	1	18-19	2043	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
20	1	19-20	2044	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
21	1	20-21	2045	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
22	1	21-22	2046	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
23	1	22-23	2047	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
24	1	23-24	2048	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
25	1	24-25	2049	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
26	1	25-26	2050	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
27	1	26-27	2051	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
28	1	27-28	2052	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
29	1	28-29	2053	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
30	1	29-30	2054	1	0.0009	0.0462	0.0600	0.003	0.001	0.0001	0.00		
Total Increased Cancer Risk								0.69	0.196	0.015	0.90		

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - E. Tasman Drive Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st (1.5m) & 2nd (5.2m) Floor Receptors Heights

Emission Year	2025
Receptor Information	Maximum On-Site Receptor
Number of Receptors	351
Receptor Height	1st (1.5m) & 2nd (5.2) Floors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions

BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0015	0.0844	0.1096
2013-2017	0.0013	0.0692	0.0899

1st Floor
2nd Floor

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.1222	0.1177	0.0045
2013-2017	0.1002	0.0966	0.0037

1st Floor
2nd Floor

210 Baypointe Parkway, San Jose, CA - E. Tasman Drive Cancer Risk & PM2.5

Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights

30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (ug/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Parameter	Infant/Child			Adult	
	Age →>	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information		Age Sensitivity Factor	Concentration (ug/m ³)			Cancer Risk (per million)			TOTAL		
		Age	Year		DPM	Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG			
						TOG	TOG						
0	0.25	-0.25 - 0*	2025	10	0.0015	0.0844	0.1096	0.021	0.007	0.0005	0.03		
1	1	0 - 1	2025	10	0.0015	0.0844	0.1096	0.251	0.079	0.0061	0.34		
2	1	1 - 2	2026	10	0.0015	0.0844	0.1096	0.251	0.079	0.0061	0.34		
3	1	2 - 3	2027	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
4	1	3 - 4	2028	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
5	1	4 - 5	2029	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
6	1	5 - 6	2030	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
7	1	6 - 7	2031	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
8	1	7 - 8	2032	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
9	1	8 - 9	2033	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
10	1	9 - 10	2034	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
11	1	10 - 11	2035	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
12	1	11 - 12	2036	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
13	1	12 - 13	2037	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
14	1	13 - 14	2038	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
15	1	14 - 15	2039	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
16	1	15 - 16	2040	3	0.0015	0.0844	0.1096	0.040	0.012	0.0010	0.05		
17	1	16-17	2041	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
18	1	17-18	2042	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
19	1	18-19	2043	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
20	1	19-20	2044	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
21	1	20-21	2045	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
22	1	21-22	2046	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
23	1	22-23	2047	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
24	1	23-24	2048	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
25	1	24-25	2049	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
26	1	25-26	2050	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
27	1	26-27	2051	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
28	1	27-28	2052	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
29	1	28-29	2053	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
30	1	29-30	2054	1	0.0015	0.0844	0.1096	0.004	0.001	0.0001	0.01		
Total Increased Cancer Risk								1.14	0.359	0.027	1.52		

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - E. Tasman Drive Cancer Risk & PM2.5

Impacts at On-Site 2nd Floor Receptors - 5.2m receptor heights

30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (ug/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Parameter	Infant/Child			Adult	
	Age →>	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1	
DBR* =	361	1090	572	261	
A =	1	1	1	1	
EF =	350	350	350	350	
AT =	70	70	70	70	
FAH =	1.00	1.00	1.00	0.73	

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information		Age Sensitivity Factor	Concentration (ug/m ³)			Cancer Risk (per million)			TOTAL		
		Age	Year		DPM	Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG			
						TOG	TOG						
0	0.25	-0.25 - 0*	2025	10	0.0013	0.0692	0.0899	0.018	0.005	0.0004	0.02		
1	1	0 - 1	2025	10	0.0013	0.0692	0.0899	0.217	0.065	0.0050	0.29		
2	1	1 - 2	2026	10	0.0013	0.0692	0.0899	0.217	0.065	0.0050	0.29		
3	1	2 - 3	2027	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
4	1	3 - 4	2028	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
5	1	4 - 5	2029	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
6	1	5 - 6	2030	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
7	1	6 - 7	2031	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
8	1	7 - 8	2032	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
9	1	8 - 9	2033	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
10	1	9 - 10	2034	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
11	1	10 - 11	2035	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
12	1	11 - 12	2036	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
13	1	12 - 13	2037	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
14	1	13 - 14	2038	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
15	1	14 - 15	2039	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
16	1	15 - 16	2040	3	0.0013	0.0692	0.0899	0.034	0.010	0.0008	0.05		
17	1	16-17	2041	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
18	1	17-18	2042	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
19	1	18-19	2043	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
20	1	19-20	2044	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
21	1	20-21	2045	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
22	1	21-22	2046	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
23	1	22-23	2047	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
24	1	23-24	2048	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
25	1	24-25	2049	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
26	1	25-26	2050	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
27	1	26-27	2051	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
28	1	27-28	2052	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
29	1	28-29	2053	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
30	1	29-30	2054	1	0.0013	0.0692	0.0899	0.004	0.001	0.0001	0.01		
Total Increased Cancer Risk								0.98	0.294	0.023	1.30		

* Third trimester of pregnancy

Zanker Road - Traffic Emissions and Health Risk Calculations

Analysis Year = 2025

Vehicle Type	2018 Caltrans Vehicles (veh/day)	2025 Vehicles (veh/day)
Total	26,415	28,264

Increase From 2018 1.07

Vehicles/Direction 14,132

Avg Vehicles/Hour/Direction 589

Traffic Data Year = 2018

<i>Project Traffic Data - Background Plus Project ADT</i>	AADT Total	Total Truck
Zanker Road & Tasman Drive	26,415	927

Percent of Total Vehicles 3.51%

Traffic Increase per Year (%) = 1.00%

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions

Year = **2025**

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
DPM_NB_ZAN	Zanker Road Northbound	NB	3	574.3	0.36	17.0	55.7	3.4	45	14,132
DPM_SB_ZAN	Zanker Road Southbound	SB	3	602.9	0.37	17.0	55.7	3.4	45	14,132
								Total		28,264

Emission Factors - DPM

Speed Category	1	2	3	4
	Travel Speed (mph)	45		
Emissions per Vehicle (g/VMT)	0.00040			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and DPM Emissions - DPM_NB_ZAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.93%	556	2.18E-05	9	6.41%	905	3.54E-05	17	5.55%	784	3.07E-05
2	2.62%	371	1.45E-05	10	7.36%	1041	4.08E-05	18	3.16%	446	1.75E-05
3	2.85%	403	1.58E-05	11	6.34%	896	3.51E-05	19	2.36%	333	1.30E-05
4	3.31%	467	1.83E-05	12	6.92%	978	3.83E-05	20	0.87%	122	4.79E-06
5	2.17%	306	1.20E-05	13	6.29%	889	3.48E-05	21	3.09%	437	1.71E-05
6	3.36%	475	1.86E-05	14	6.23%	881	3.45E-05	22	4.12%	582	2.28E-05
7	6.00%	847	3.32E-05	15	5.15%	728	2.85E-05	23	2.58%	364	1.43E-05
8	4.58%	647	2.54E-05	16	3.84%	543	2.12E-05	24	0.92%	130	5.10E-06
								Total		14,132	

2025 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_ZAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.93%	556	2.29E-05	9	6.41%	905	3.72E-05	17	5.55%	784	3.22E-05
2	2.62%	371	1.52E-05	10	7.36%	1041	4.28E-05	18	3.16%	446	1.83E-05
3	2.85%	403	1.66E-05	11	6.34%	896	3.68E-05	19	2.36%	333	1.37E-05
4	3.31%	467	1.92E-05	12	6.92%	978	4.02E-05	20	0.87%	122	5.03E-06
5	2.17%	306	1.26E-05	13	6.29%	889	3.65E-05	21	3.09%	437	1.79E-05
6	3.36%	475	1.95E-05	14	6.23%	881	3.62E-05	22	4.12%	582	2.39E-05
7	6.00%	847	3.48E-05	15	5.15%	728	2.99E-05	23	2.58%	364	1.50E-05
8	4.58%	647	2.66E-05	16	3.84%	543	2.23E-05	24	0.92%	130	5.36E-06
								Total		14,132	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
PM25_NB_ZAN	Zanker Road Northbound	NB	3	574.3	0.36	17.0	56	1.3	45	14,132
PM25_SB_ZAN	Zanker Road Southbound	SB	3	602.9	0.37	17.0	56	1.3	45	14,132
								Total		28,264

Emission Factors - PM2.5

Speed Category	1	2	3	4
	Travel Speed (mph)	45		
Emissions per Vehicle (g/VMT)	0.001240			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM25_NB_ZAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	162	2.00E-05	9	7.11%	1005	1.24E-04	17	7.39%	1044	1.28E-04
2	0.42%	60	7.33E-06	10	4.39%	620	7.62E-05	18	8.18%	1156	1.42E-04
3	0.41%	58	7.09E-06	11	4.66%	659	8.10E-05	19	5.69%	805	9.89E-05
4	0.26%	37	4.52E-06	12	5.89%	832	1.02E-04	20	4.28%	604	7.43E-05
5	0.50%	70	8.63E-06	13	6.15%	869	1.07E-04	21	3.25%	460	5.65E-05
6	0.91%	128	1.58E-05	14	6.04%	853	1.05E-04	22	3.30%	466	5.73E-05
7	3.79%	535	6.58E-05	15	7.01%	991	1.22E-04	23	2.46%	348	4.27E-05
8	7.77%	1098	1.35E-04	16	7.14%	1009	1.24E-04	24	1.86%	263	3.24E-05
								Total		14,132	

2025 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_SB_ZAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	162	2.10E-05	9	7.11%	1005	1.30E-04	17	7.39%	1044	1.35E-04
2	0.42%	60	7.69E-06	10	4.39%	620	8.00E-05	18	8.18%	1156	1.49E-04
3	0.41%	58	7.44E-06	11	4.66%	659	8.50E-05	19	5.69%	805	1.04E-04
4	0.26%	37	4.74E-06	12	5.89%	832	1.07E-04	20	4.28%	604	7.80E-05
5	0.50%	70	9.06E-06	13	6.15%	869	1.12E-04	21	3.25%	460	5.93E-05
6	0.91%	128	1.65E-05	14	6.04%	853	1.10E-04	22	3.30%	466	6.01E-05
7	3.79%	535	6.91E-05	15	7.01%	991	1.28E-04	23	2.46%	348	4.49E-05
8	7.77%	1098	1.42E-04	16	7.14%	1009	1.30E-04	24	1.86%	263	3.40E-05
								Total		14,132	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEXH_NB_ZAN	Zanker Road Northbound	NB	3	574.3	0.36	17.0	56	1.3	45	14,132
TEXH_SB_ZAN	Zanker Road Southbound	SB	3	602.9	0.37	17.0	56	1.3	45	14,132
									Total	28,264

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	45			
Emissions per Vehicle (g/VMT)	0.02226			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_ZAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	162	3.58E-04	9	7.11%	1005	2.22E-03	17	7.39%	1044	2.30E-03
2	0.42%	60	1.31E-04	10	4.39%	620	1.37E-03	18	8.18%	1156	2.55E-03
3	0.41%	58	1.27E-04	11	4.66%	659	1.45E-03	19	5.69%	805	1.78E-03
4	0.26%	37	8.11E-05	12	5.89%	832	1.84E-03	20	4.28%	604	1.33E-03
5	0.50%	70	1.55E-04	13	6.15%	869	1.92E-03	21	3.25%	460	1.01E-03
6	0.91%	128	2.83E-04	14	6.04%	853	1.88E-03	22	3.30%	466	1.03E-03
7	3.79%	535	1.18E-03	15	7.01%	991	2.19E-03	23	2.46%	348	7.67E-04
8	7.77%	1098	2.42E-03	16	7.14%	1009	2.23E-03	24	1.86%	263	5.81E-04
								Total		14,132	

2025 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_ZAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	162	3.76E-04	9	7.11%	1005	2.33E-03	17	7.39%	1044	2.42E-03
2	0.42%	60	1.38E-04	10	4.39%	620	1.44E-03	18	8.18%	1156	2.68E-03
3	0.41%	58	1.34E-04	11	4.66%	659	1.53E-03	19	5.69%	805	1.86E-03
4	0.26%	37	8.51E-05	12	5.89%	832	1.93E-03	20	4.28%	604	1.40E-03
5	0.50%	70	1.63E-04	13	6.15%	869	2.01E-03	21	3.25%	460	1.07E-03
6	0.91%	128	2.97E-04	14	6.04%	853	1.98E-03	22	3.30%	466	1.08E-03
7	3.79%	535	1.24E-03	15	7.01%	991	2.30E-03	23	2.46%	348	8.06E-04
8	7.77%	1098	2.54E-03	16	7.14%	1009	2.34E-03	24	1.86%	263	6.10E-04
								Total		14,132	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions

Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEVAP_NB_ZAN	Zanker Road Northbound	NB	3	574.3	0.36	17.0	56	1.3	45	14,132
TEVAP_SB_ZAN	Zanker Road Southbound	SB	3	602.9	0.37	17.0	56	1.3	45	14,132
									Total	28,264

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	45			
Emissions per Vehicle per Hour (g/hour)	1.25540			
Emissions per Vehicle per Mile (g/VMT)	0.02790			

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_ZAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	162	4.49E-04	9	7.11%	1005	2.78E-03	17	7.39%	1044	2.89E-03
2	0.42%	60	1.65E-04	10	4.39%	620	1.71E-03	18	8.18%	1156	3.20E-03
3	0.41%	58	1.60E-04	11	4.66%	659	1.82E-03	19	5.69%	805	2.23E-03
4	0.26%	37	1.02E-04	12	5.89%	832	2.30E-03	20	4.28%	604	1.67E-03
5	0.50%	70	1.94E-04	13	6.15%	869	2.40E-03	21	3.25%	460	1.27E-03
6	0.91%	128	3.54E-04	14	6.04%	853	2.36E-03	22	3.30%	466	1.29E-03
7	3.79%	535	1.48E-03	15	7.01%	991	2.74E-03	23	2.46%	348	9.62E-04
8	7.77%	1098	3.04E-03	16	7.14%	1009	2.79E-03	24	1.86%	263	7.28E-04
								Total		14,132	

2025 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_ZAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	162	4.72E-04	9	7.11%	1005	2.92E-03	17	7.39%	1044	3.03E-03
2	0.42%	60	1.73E-04	10	4.39%	620	1.80E-03	18	8.18%	1156	3.35E-03
3	0.41%	58	1.67E-04	11	4.66%	659	1.91E-03	19	5.69%	805	2.34E-03
4	0.26%	37	1.07E-04	12	5.89%	832	2.42E-03	20	4.28%	604	1.75E-03
5	0.50%	70	2.04E-04	13	6.15%	869	2.52E-03	21	3.25%	460	1.34E-03
6	0.91%	128	3.72E-04	14	6.04%	853	2.48E-03	22	3.30%	466	1.35E-03
7	3.79%	535	1.55E-03	15	7.01%	991	2.88E-03	23	2.46%	348	1.01E-03
8	7.77%	1098	3.19E-03	16	7.14%	1009	2.93E-03	24	1.86%	263	7.65E-04
								Total		14,132	

210 Baypointe Parkway, San Jose, CA - Residential Roadway Modeling

Cumulative Operation - E. Tasman Drive

Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions

Year = **2025**

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
FUG_NB_ZAN	Zanker Road Northbound	NB	3	574.3	0.36	17.0	56	1.3	45	14,132
FUG_SB_ZAN	Zanker Road Southbound	SB	3	602.9	0.37	17.0	56	1.3	45	14,132
								Total		28,264

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4	
	Travel Speed (mph)	45			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211				
Brake Wear - Emissions per Vehicle (g/VMT)	0.01680				
Road Dust - Emissions per Vehicle (g/VMT)	0.01483				
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03374				

Emission Factors from CT-EMFAC2017

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_ZAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	162	5.43E-04	9	7.11%	1005	3.36E-03	17	7.39%	1044	3.49E-03
2	0.42%	60	1.99E-04	10	4.39%	620	2.07E-03	18	8.18%	1156	3.86E-03
3	0.41%	58	1.93E-04	11	4.66%	659	2.20E-03	19	5.69%	805	2.69E-03
4	0.26%	37	1.23E-04	12	5.89%	832	2.78E-03	20	4.28%	604	2.02E-03
5	0.50%	70	2.35E-04	13	6.15%	869	2.91E-03	21	3.25%	460	1.54E-03
6	0.91%	128	4.29E-04	14	6.04%	853	2.85E-03	22	3.30%	466	1.56E-03
7	3.79%	535	1.79E-03	15	7.01%	991	3.31E-03	23	2.46%	348	1.16E-03
8	7.77%	1098	3.67E-03	16	7.14%	1009	3.37E-03	24	1.86%	263	8.81E-04
								Total		14,132	

2025 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_ZAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	162	5.70E-04	9	7.11%	1005	3.53E-03	17	7.39%	1044	3.67E-03
2	0.42%	60	2.09E-04	10	4.39%	620	2.18E-03	18	8.18%	1156	4.06E-03
3	0.41%	58	2.03E-04	11	4.66%	659	2.31E-03	19	5.69%	805	2.83E-03
4	0.26%	37	1.29E-04	12	5.89%	832	2.92E-03	20	4.28%	604	2.12E-03
5	0.50%	70	2.46E-04	13	6.15%	869	3.05E-03	21	3.25%	460	1.61E-03
6	0.91%	128	4.50E-04	14	6.04%	853	3.00E-03	22	3.30%	466	1.64E-03
7	3.79%	535	1.88E-03	15	7.01%	991	3.48E-03	23	2.46%	348	1.22E-03
8	7.77%	1098	3.85E-03	16	7.14%	1009	3.54E-03	24	1.86%	263	9.25E-04
								Total		14,132	

**210 Baypointe Parkway, San Jose, CA - Zanker Road Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptors, PM2.5 4.5m, Cancer Risk 7.6m receptor heights**

Emission Year	2025
Receptor Information	Construction MEI receptors
Number of Receptors	2
Receptor Height	PM2.5 4.5m, Cancer Risk 7.6m
Receptor Distances	At Construction MEI locations

Meteorological Conditions

BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0003	0.0117	0.0146

Project MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0220	0.0212	0.0008

210 Baypointe Parkway, San Jose, CA - Zanker Road Cancer Risk & PM2.5
Impacts at Construction MEIs - PM2.5 4.5m (2nd Floor), Cancer Risk 7.6m (3rd Floor) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (ug/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Parameter	Infant/Child			Adult	
	Age →>	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information		Age Sensitivity Factor	Concentration (ug/m ³)			Cancer Risk (per million)			TOTAL		
		Age	Year		DPM	Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG			
						TOG	TOG						
0	0.25	-0.25 - 0*	2025	10	0.0003	0.0117	0.0146	0.004	0.001	0.0001	0.00		
1	1	0 - 1	2025	10	0.0003	0.0117	0.0146	0.048	0.011	0.0008	0.06		
2	1	1 - 2	2026	10	0.0003	0.0117	0.0146	0.048	0.011	0.0008	0.06		
3	1	2 - 3	2027	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
4	1	3 - 4	2028	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
5	1	4 - 5	2029	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
6	1	5 - 6	2030	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
7	1	6 - 7	2031	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
8	1	7 - 8	2032	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
9	1	8 - 9	2033	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
10	1	9 - 10	2034	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
11	1	10 - 11	2035	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
12	1	11 - 12	2036	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
13	1	12 - 13	2037	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
14	1	13 - 14	2038	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
15	1	14 - 15	2039	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
16	1	15 - 16	2040	3	0.0003	0.0117	0.0146	0.007	0.002	0.0001	0.01		
17	1	16-17	2041	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
18	1	17-18	2042	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
19	1	18-19	2043	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
20	1	19-20	2044	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
21	1	20-21	2045	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
22	1	21-22	2046	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
23	1	22-23	2047	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
24	1	23-24	2048	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
25	1	24-25	2049	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
26	1	25-26	2050	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
27	1	26-27	2051	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
28	1	27-28	2052	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
29	1	28-29	2053	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
30	1	29-30	2054	1	0.0003	0.0117	0.0146	0.001	0.000	0.0000	0.00		
Total Increased Cancer Risk								0.22	0.050	0.004	0.27		

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - Zanker Road Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st (1.5m) & 2nd (5.2m) Floor Receptors Heights

Emission Year	2025
Receptor Information	Maximum On-Site Receptor
Number of Receptors	351
Receptor Height	1st (1.5m) & 2nd (5.2) Floors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions

BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0008	0.0315	0.0396
2013-2017	0.0007	0.0282	0.0354

1st Floor
2nd Floor

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0496	0.0479	0.0018
2013-2017	0.0444	0.0428	0.0016

1st Floor
2nd Floor

210 Baypointe Parkway, San Jose, CA - Zanker Road Cancer Risk & PM2.5

Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights

30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (ug/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Parameter	Infant/Child			Adult	
	Age →>	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information		Age Sensitivity Factor	Concentration (ug/m ³)			Cancer Risk (per million)			TOTAL		
		Age	Year		DPM	Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG			
						TOG	TOG						
0	0.25	-0.25 - 0*	2025	10	0.0008	0.0315	0.0396	0.010	0.002	0.0002	0.01		
1	1	0 - 1	2025	10	0.0008	0.0315	0.0396	0.126	0.030	0.0022	0.16		
2	1	1 - 2	2026	10	0.0008	0.0315	0.0396	0.126	0.030	0.0022	0.16		
3	1	2 - 3	2027	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
4	1	3 - 4	2028	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
5	1	4 - 5	2029	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
6	1	5 - 6	2030	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
7	1	6 - 7	2031	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
8	1	7 - 8	2032	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
9	1	8 - 9	2033	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
10	1	9 - 10	2034	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
11	1	10 - 11	2035	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
12	1	11 - 12	2036	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
13	1	12 - 13	2037	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
14	1	13 - 14	2038	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
15	1	14 - 15	2039	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
16	1	15 - 16	2040	3	0.0008	0.0315	0.0396	0.020	0.005	0.0003	0.02		
17	1	16-17	2041	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
18	1	17-18	2042	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
19	1	18-19	2043	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
20	1	19-20	2044	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
21	1	20-21	2045	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
22	1	21-22	2046	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
23	1	22-23	2047	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
24	1	23-24	2048	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
25	1	24-25	2049	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
26	1	25-26	2050	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
27	1	26-27	2051	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
28	1	27-28	2052	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
29	1	28-29	2053	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
30	1	29-30	2054	1	0.0008	0.0315	0.0396	0.002	0.001	0.0000	0.00		
Total Increased Cancer Risk								0.57	0.134	0.010	0.72		

* Third trimester of pregnancy

210 Baypointe Parkway, San Jose, CA - Zanker Road Cancer Risk & PM2.5

Impacts at On-Site 2nd Floor Receptors - 5.2m receptor heights

30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (ug/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Parameter	Infant/Child			Adult	
	Age →>	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =		10	10	3	1
DBR* =		361	1090	572	261
A =		1	1	1	1
EF =		350	350	350	350
AT =		70	70	70	70
FAH =		1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information		Age Sensitivity Factor	Concentration (ug/m ³)			Cancer Risk (per million)			TOTAL		
		Age	Year		DPM	Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG			
						TOG	TOG						
0	0.25	-0.25 - 0*	2025	10	0.0007	0.0282	0.0354	0.009	0.002	0.0002	0.01		
1	1	0 - 1	2025	10	0.0007	0.0282	0.0354	0.113	0.026	0.0020	0.14		
2	1	1 - 2	2026	10	0.0007	0.0282	0.0354	0.113	0.026	0.0020	0.14		
3	1	2 - 3	2027	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
4	1	3 - 4	2028	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
5	1	4 - 5	2029	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
6	1	5 - 6	2030	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
7	1	6 - 7	2031	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
8	1	7 - 8	2032	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
9	1	8 - 9	2033	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
10	1	9 - 10	2034	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
11	1	10 - 11	2035	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
12	1	11 - 12	2036	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
13	1	12 - 13	2037	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
14	1	13 - 14	2038	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
15	1	14 - 15	2039	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
16	1	15 - 16	2040	3	0.0007	0.0282	0.0354	0.018	0.004	0.0003	0.02		
17	1	16-17	2041	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
18	1	17-18	2042	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
19	1	18-19	2043	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
20	1	19-20	2044	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
21	1	20-21	2045	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
22	1	21-22	2046	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
23	1	22-23	2047	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
24	1	23-24	2048	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
25	1	24-25	2049	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
26	1	25-26	2050	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
27	1	26-27	2051	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
28	1	27-28	2052	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
29	1	28-29	2053	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
30	1	29-30	2054	1	0.0007	0.0282	0.0354	0.002	0.000	0.0000	0.00		
Total Increased Cancer Risk								0.51	0.120	0.009	0.64		

* Third trimester of pregnancy



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

[Click here for guidance on conducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.](#)

[Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.](#)

Table A: Requester Contact Information

Date of Request	12/23/2022
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	jbauer@illingworthrodkin.com
Project Name	210 Baypointe
Address	210 Baypointe Parkway
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.
2. Download and install the free program Google Earth, <http://www.google.com/earth/download/ge/>, and then download the county specific Google Earth stationary source application files from the District's website, <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.
3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.
5. List the stationary source information in **Table B** in the same sequence as the source appears on the map.
6. Note that a small percentage of the stationary sources have available Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.
7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Matthew Hanson at 415-749-8733, or mhanson@baaqmd.gov

Table B: Google Earth data

Construction MEIs														
Distance from Receptor (feet) or MEI ¹	Plant No.	Facility Name	Address	Cancer Risk ²	Hazard Risk ²	PM _{2.5} ²	Source No. ³	Type of Source ⁴	Fuel Code ⁵	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
600	16827	Netscout Systems	178 E Tasman Drive	9.03	0.002	0.01		Generators		2020 Dataset	0.09	0.81	0.0002	0.001
700	22636	LBA RIV-Company XXV LLC	160 E Tasman	2.89	0.001	0.004		Generators		2020 Dataset	0.07	0.20	0.0001	0.0003

Footnotes:

1. Maximally exposed individual

2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.

3. Each plant may have multiple permits and sources.

4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.

5. Fuel codes: 98 = diesel, 189 = Natural Gas.

6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.

7. The date that the HRSA was completed.

8. Engineer who completed the HRSA. For District purposes only.

9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.

10. The HRSA "Chronic Health" number represents the Hazard Index.

11. Further information about common sources:

a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.

b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or

c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010.

Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.

d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect

e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Multiplier worksheet.

f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.

g. This spray booth is considered to be insignificant.

Date last updated:

03/13/2018

Project Site

Distance from Receptor (feet) or MEI ¹	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
580	16827	0.09	0.81	0.0002	0.001
580	22636	0.09	0.26	0.0001	0.0003



Screening Report

Area of Interest (AOI) Information

Area : 5,283,394.58 ft²

Nov 23 2022 17:01:26 Pacific Standard Time



- Permitted Stationary Sources

Summary

Name	Count	Area(ft ²)	Length(ft)
Permitted Stationary Sources	3	N/A	N/A

Permitted Stationary Sources

#	FacID	FacName	Address	City	Street
1	4558	Santa Clara Valley Transportation Authority	3990 Zanker Road	San Jose	CA
2	16827	Netscout Systems	178 E Tasman Drive	San Jose	CA
3	22636	LBA RIV-Company XXV LLC	160 E Tasman	San Jose	CA

#	Zip	County	Latitude	Longitude	Details
1	95,134.00	Santa Clara	37.41	-121.94	No Data
2	95,134.00	Santa Clara	37.41	-121.94	Generator
3	95,134.00	Santa Clara	37.41	-121.94	Generator

#	NAICS	Sector	Sub_Sector	Industry	ChronicHI
1	488,111.00	Transportation and Warehousing	Support Activities for Transportation	Air Traffic Control	0.0000113
2	511,210.00	Information	Publishing Industries (except Internet)	Software Publishers	0.0024254
3	541,519.00	Professional, Scientific, and Technical Services	Professional, Scientific, and Technical Services	Other Computer Related Services	0.0007755

#	PM2_5	Cancer Risk {expression/expr0}	Chronic Hazard Index {expression/expr1}	PM2.5 {expression/expr2}	Count
1	0.0043484	No Data	0	0.004	1
2	0.0113629	9.026	0.002	0.011	1
3	0.0036331	2.886	0.001	0.004	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.