

Arkansas Street Residential Development and Specific Plan

Air Quality and Greenhouse Gas Impact Study City of Artesia, CA

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TABLE OF CONTENTS

1.0	Introduction	1
1.1	Purpose of Analysis and Study Objectives	1
1.2	Project Summary	1
1.2.1	Site Location	1
1.2.2	Project Description	1
1.2.3	Sensitive Receptors	2
1.3	Executive Summary of Findings and Mitigation Measures	2
2.0	Regulatory Framework and Background	7
2.1	Air Quality Regulatory Setting	7
2.1.1	National and State	7
2.1.2	South Coast Air Quality Management District	9
2.1.3	Local	12
2.2	Greenhouse Gas Regulatory Setting	12
2.2.1	International	12
2.2.2	National	13
2.2.3	California	14
2.2.5	Local	23
3.0	Setting	25
3.1	Existing Physical Setting	25
3.1.1	Local Climate and Meteorology	25
3.1.2	Local Air Quality	26
3.1.3	Attainment Status	29
3.2	Greenhouse Gases	30
4.0	Modeling Parameters and Assumptions	33
4.1	Construction	33
4.2	Operations	34
4.3	Localized Construction Analysis	35
4.4	Localized Operational Analysis	36
5.0	Thresholds of Significance	37
5.1	Air Quality Thresholds of Significance	37
5.1.1	CEQA Guidelines for Air Quality	37
5.1.2	Regional Significance Thresholds for Construction Emissions	37
5.1.3	Regional Significance Thresholds for Operational Emissions	37
5.1.4	Thresholds for Localized Significance	38
5.2	Greenhouse Gas Thresholds of Significance	38
5.2.1	CEQA Guidelines for Greenhouse Gas	38
6.0	Air Quality Emissions Impact	40
6.1	Construction Air Quality Emissions Impact	40
6.1.1	Regional Construction Emissions	40

6.1.2	Localized Construction Emissions	41
6.1.3	Construction-Related Human Health Impacts	42
6.1.4	Odors	42
6.1.5	Construction-Related Toxic Air Contaminant Impact	43
6.2	Operational Air Quality Emissions Impact	43
6.2.1	Regional Operational Emissions	43
6.2.2	Localized Operational Emissions	45
6.2.3	Operations-Related Human Health Impacts	46
6.3	CO Hot Spot Emissions	46
6.4	Cumulative Regional Air Quality Impacts	47
6.5	Air Quality Compliance	47
7.0	Greenhouse Gas Impact Analysis.....	50
7.1	Construction Greenhouse Gas Emissions Impact	50
7.2	Operational Greenhouse Gas Emissions Impact	50
7.3	Greenhouse Gas Plan Consistency	52
8.0	References.....	57

LIST OF APPENDICES

Appendix A:

CalEEMod Daily Emission Output

Appendix B:

CalEEMod Annual Emission Output

LIST OF EXHIBITS

Exhibit A	5
Location Map	5
Exhibit B	6
Site Plan	6

LIST OF TABLES

Table 1: Land Use Summary.....	2
Table 2: Ambient Air Quality Standards	8
Table 3: Meteorological Summary.....	26
Table 4: Local Area Air Quality Levels.....	27
Table 5: South Coast Air Basin Attainment Status.....	29
Table 6: Description of Greenhouse Gases.....	32
Table 7: Construction Equipment Assumptions ¹	35
Table 8: Regional Significance - Construction Emissions (pounds/day) – Phase 1.....	40
Table 9: Regional Significance - Construction Emissions (pounds/day) – Future Phases	41
Table 10: Localized Significance – Construction	42
Table 11: Regional Significance - Unmitigated Operational Emissions (lbs/day)	44
Table 12: Localized Significance – Phase 1 Unmitigated Operational Emissions	45
Table 13: Construction Greenhouse Gas Emissions	50
Table 14: Unmitigated Project-Related Greenhouse Gas Emissions.....	51
Table 15: Project Consistency with CARB Scoping Plan Policies and Measures ¹	54

GLOSSARY OF TERMS

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
LST	Localized Significant Thresholds
MTCO ₂ e	Metric tons of carbon dioxide equivalent
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
O ₃	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM ₁₀	Particles that are less than 10 micrometers in diameter
PM _{2.5}	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF ₆	Sulfur hexafluoride
SIP	State Implementation Plan
SO _x	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This air quality and greenhouse gas (GHG) analysis was prepared to evaluate whether the estimated criteria pollutants and GHG emissions generated from the project would cause a significant impact to the air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The assessment is consistent with the methodology and emission factors endorsed by South Coast Air Quality Management District (SCAQMD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.2 Project Summary

1.2.1 Site Location

The approximately 4.22-acre Specific Plan site area is bounded to the north by Arkansas Street, to the east by Pioneer Boulevard, to the south by a single-family residential neighborhood and to the west by Alburdis Avenue. The site area contains multiple landowners and uses, including an El Pollo Loco restaurant, Pioneer RV Storage, residential, light industrial, blighted property, and automobile uses. The site comprises of Tax Assessor parcel numbers – APNs 7014-003-015 through 7014-003-028 and the portion of Alburdis Avenue within the Specific Plan boundary proposed to be vacated.

1.2.2 Project Description

- Proposal of Kim Prijatel on behalf of City Ventures and the City of Artesia, to prepare a specific plan (Arkansas Street Specific Plan) of approximately 4.22 acres bounded to the north by Arkansas Street, to the east by Pioneer Boulevard, to the south by a single-family residential neighborhood and to the west by Alburdis Avenue. The site area contains multiple landowners and uses, including an El Pollo Loco restaurant, Pioneer RV Storage, residential, light industrial, blighted property, and automobile uses. The site comprises of Tax Assessor parcel numbers – APNs 7014-003-015 through 7014-003-028 and the portion of Alburdis Avenue within the Specific Plan boundary proposed to be vacated. Included in the proposal are the following: General Plan Amendment to add the new Arkansas Street Specific Plan to the General Plan and change the land use designation from Light Manufacturing and Industrial and Pioneer Boulevard Commercial to Arkansas Mixed-Use
- Specific Plan – Arkansas Street Specific Plan (4.22 acres)
- Change of Zone from Light Manufacturing and Industrial (M-1) and Commercial General (C-G) to Specific Plan (SP) Zone – Arkansas Specific Plan
- Phase 1 Development (Project) – Arkansas Project (Case No. 2021-06) will include:
 - 59 units and 5,290-square-feet of commercial on 2.65 acres;
 - TTM-83442 – air space condominium map; and
 - Street Vacation for Alburdis Avenue.
- Future Phases – the remainder of the Specific Plan area will include:

- 40 units and 34,190-square-feet of commercial on the remaining 1.57 acres based on a floor area ratio of 0.5 for commercial and 25 dwelling units per acre as specified in the specific plan.

The Specific Plan location, including the boundaries of Phase 1 and Future Phases, is shown in Exhibit A. The site plan used for Phase 1 development, provided by City Ventures, is shown in Exhibit B. This study assesses the air quality and greenhouse gas emissions from the entire Specific Plan area, including Phase 1 and the Future Phases.

Construction activities will consist of demolition, grading, building, paving, and architectural coating for both Phase 1 and the Future Phases. Table 1 summarizes the land use description for the Specific Plan used in the air quality modeling.

Table 1: Land Use Summary

Land Use	Unit Amount	Size Metric
Phase 1		
Other Asphalt Surfaces ¹	0.66	Acre
Other Non-Asphalt Surfaces ²	0.32	Acre
Apartments Mid Rise	59	DU
Regional Shopping Center	5.29	TSF
Future Phases		
Apartments Mid Rise	40	DU
Regional Shopping Center	34.19	TSF
¹ Includes paving of on-site roadways and street parking spaces.		
² Includes landscaping, hardscape, and open space areas.		

1.2.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc).

The closest existing sensitive receptor (to the site area) are the single-family residential uses located adjacent to the south and west and approximately 100 feet east of the Specific Plan area. In addition, John H. Niemes Elementary School is located approximately 364 feet west of the project site.

1.3 Executive Summary of Findings and Mitigation Measures

The following is a summary of the analysis results:

Construction-Source Emissions

The construction-source emissions from the Specific Plan would not exceed applicable regional thresholds of significance established by the SCAQMD. For localized emissions, both the Specific Plan will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

The construction-source emissions from the Specific Plan would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the Specific Plan will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. The construction source emissions from the Specific Plan would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

Operational-Source Emissions

The operational-sourced emissions from the Specific Plan would not exceed applicable regional thresholds of significance established by the SCAQMD. Operational-source emissions from the Specific Plan would not result in or cause a significant localized air quality impact as discussed in the Operations-Related Local Air Quality Impacts section of this report. Additionally, project-related traffic will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO “hotspots”). Operational-source emissions from the Specific Plan would therefore not adversely affect sensitive receptors within the vicinity of the project.

Operational-source emissions from the Specific Plan would not conflict with the Basin Air Quality Management Plan (AQMP). The emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The Specific Plan does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less-than significant.

Unmitigated GHG emissions for Phase 1, Future Phases, and the Total Specific Plan meet the SCAQMD tier 3 draft screening threshold of 3,000 metric tons of carbon dioxide equivalents (MTCO_{2e}) per year. unmitigated GHG emissions generated by the Future Phases and are considered to be less than significant. The Specific Plan also complies with the goals of the CARB Scoping Plan, AB-32, and SB-32.

Mitigation Measures

A. Construction Measures

Adherence to SCAQMD Rule 403 is required.

No construction mitigation required.

B. Operational Measures to Reduce Greenhouse Gas Emissions

No operational mitigation required.

Exhibit A Location Map

— = Specific Plan — = Project

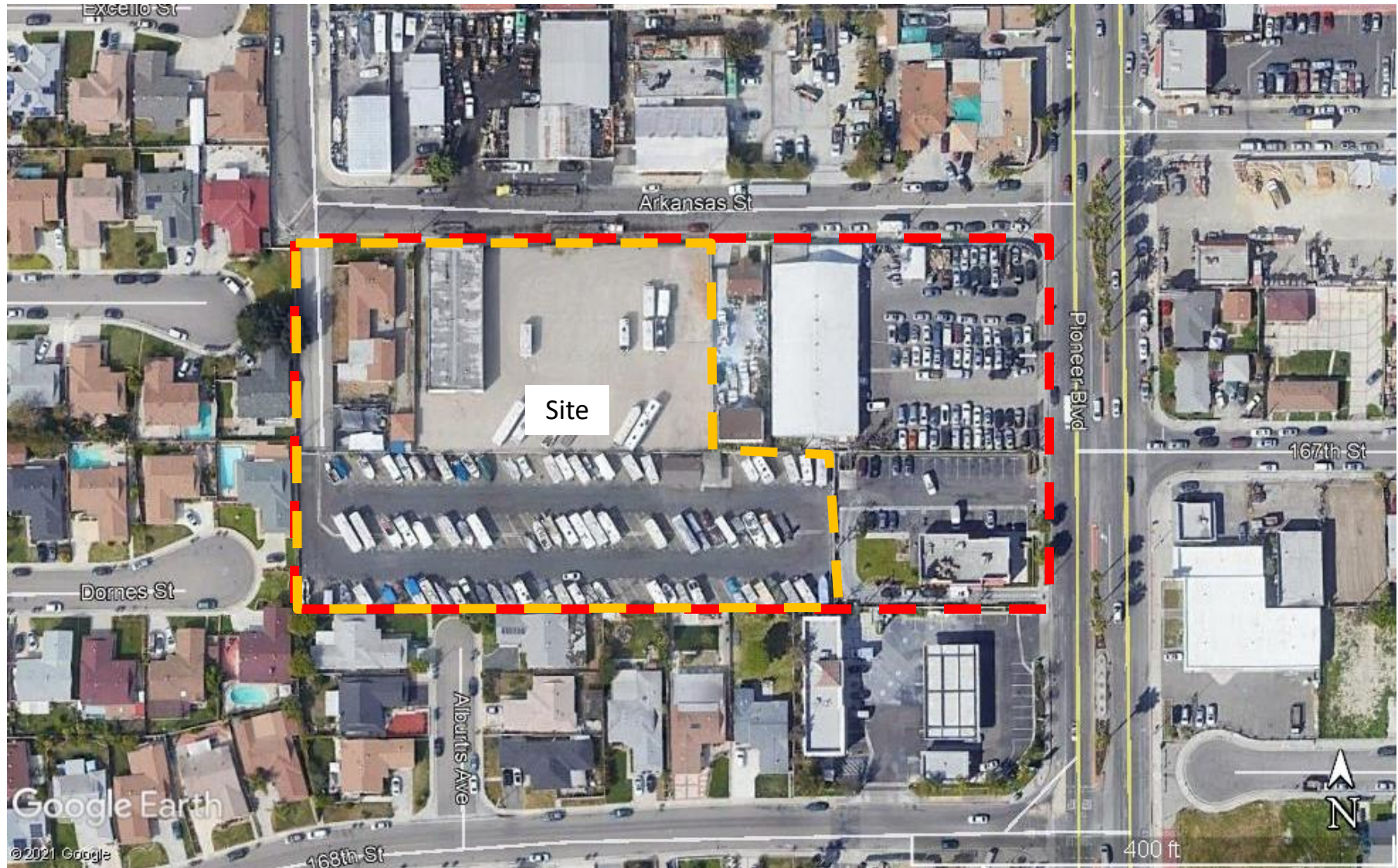
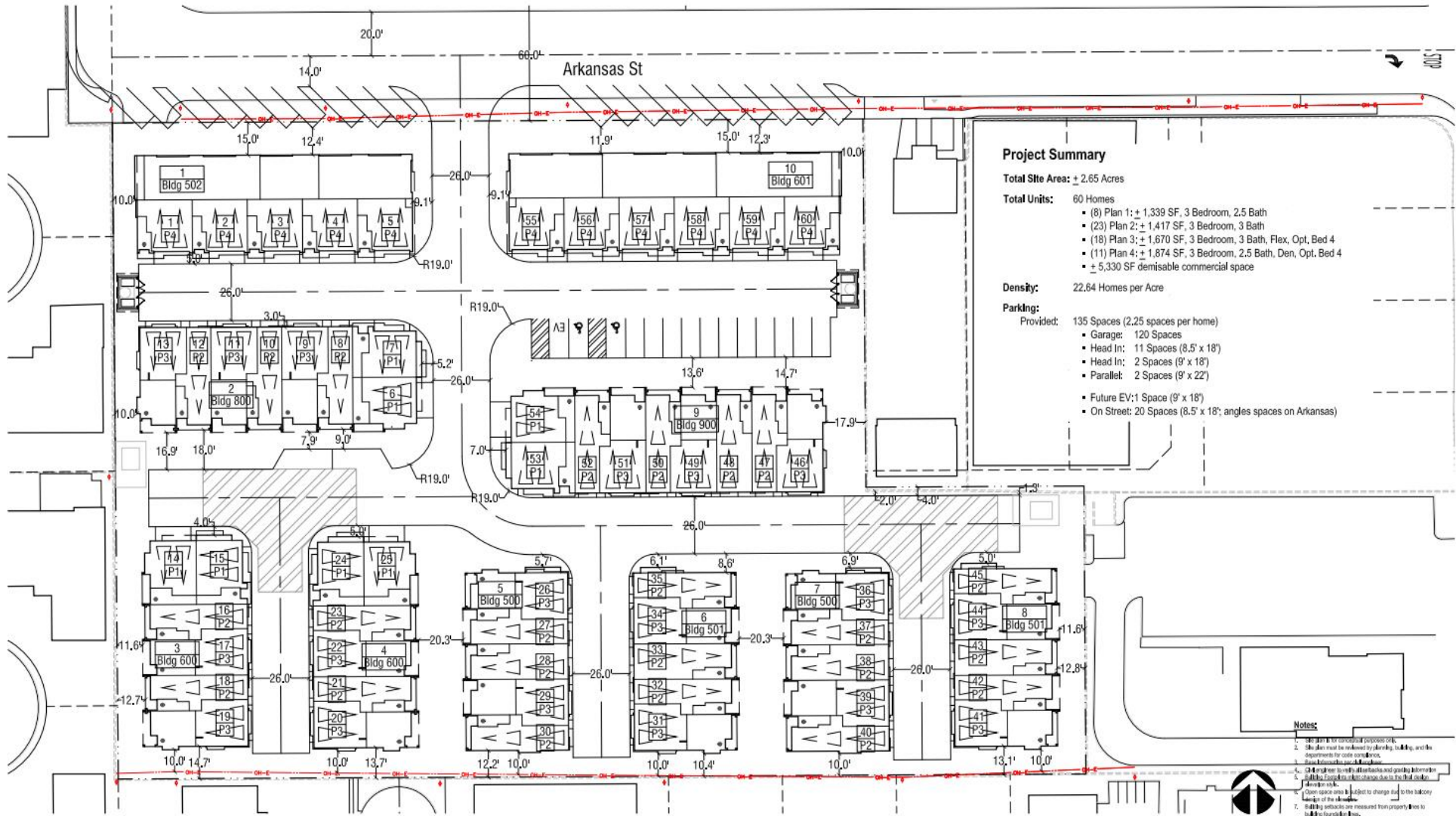


Exhibit B
Site Plan



CONCEPTUAL SITE PLAN
11700 ARKANSAS STREET SITE

ARTESIA, CA

CONCEPT STUDY

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2.0 Regulatory Framework and Background

2.1 Air Quality Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

2.1.1 National and State

The EPA is responsible for global, international, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Air Quality Standards, also known as federal standards. There are six common air pollutants, called criteria pollutants, which were identified from the provisions of the Clean Air Act of 1970.

- Ozone
- Nitrogen Dioxide
- Lead
- Particulate Matter (PM10 and PM2.5)
- Carbon Monoxide
- Particulate Matter
- Sulfur Dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. See <http://www.arb.ca.gov/research/aaqs/aaqs.htm> for additional information on criteria pollutants and air quality standards.

The federal and state ambient air quality standards are summarized in Table 2 and can also be found at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

Table 2: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentrations ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O3)	1-Hour	0.09 ppm	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm		0.070 ppm (147 µg/m³)		
Respirable Particulate Matter (PM10) ⁸	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µ/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		--		
Fine Particulate Matter (PM2.5) ⁸	24-Hour	--	--	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m³)	--	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m³)		9 ppm (10 µg/m³)	--	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m³)		--	--	
Nitrogen Dioxide (NO ₂) ⁹	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	--	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (357 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹⁰	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	--	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	--		--	0.5 ppm (1300 mg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas) ¹⁰	--	
	Annual Arithmetic Mean	--		0.130ppm (for certain areas) ¹⁰	--	
Lead ^{11,12}	30 Day Average	1.5 µg/m³	Atomic Absorption	--	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Qtr	--		1.5 µg/m³ (for certain areas) ¹²		
	Rolling 3-Month Average	--		0.15 µg/m³		
Visibility Reducing Particles ¹³	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹¹	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
10. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

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

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Several pollutants listed in Table 2 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.1.2 South Coast Air Quality Management District

The agency for air pollution control for the South Coast Air Basin (basin) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the basin. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon.

On March 23, 2017 CARB approved the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. The primary goal of the 2016 AQMP is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the plan has been approved by CARB, it has been forwarded to the U.S. Environmental Protection Agency for its review. If approved by EPA, the plan becomes federally enforceable.

South Coast AQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley. To support the development of mobile source strategies for the 2022 AQMP, South Coast AQMD, in conjunction with California Air Resources Board, has established Mobile Source Working Groups which are open to all interested parties.

South Coast Air Quality Management District Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. Some of the rules and regulations that apply to this Project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable suppression techniques are indicated below and include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas in active for 10 days or more).
- Water active sites at least three times daily.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) section 23114.
- Pave construction access roads at least 100 feet onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

SCAQMD Rule 1143 governs the sale, use, and manufacturing of consumer paint thinners and multi-purpose solvents and limits the VOC content in paint thinners and paint solvents. This rule regulates the VOC content of paint thinners available during construction. Therefore, all paint thinners and solvents used during construction and operation of project must comply with Rule 1143.

Idling Diesel Vehicle Trucks – Idling for more than 5 minutes in any one location is prohibited within California borders.

Rule 1403 establishes notification and work practice requirements to limit asbestos emissions from building demolition and renovation activities. This rule requires a survey for the presence of Asbestos-Containing Materials (ACM) to be conducted and documented prior to the commencement of any demolition or renovation.

Rule 2702. The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

2.1.3 Local

Local jurisdictions, such as the City of Artesia, have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2016 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Air Quality Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

City of Artesia General Plan

The City of Artesia General Plan 2030 Community Resources and Wellness Element under Air Quality and Climate Change contains the following air quality-related goals and policies that are applicable to the proposed project:

Community Goal AQ 1

City air resources are protected and upgraded to promote consistent attainment of regional air quality standards.

Policies

- AQ 1.1** Work with community and regional partners to reduce the number of unhealthy air quality days per year based on an established baseline.
- AQ 1.2** Increase awareness and participation throughout the community in efforts to reduce air pollution and enhance air quality.
- AQ 1.3** Strive to reduce particulate emissions from paved and unpaved roads, parking lots and building construction.

2.2 Greenhouse Gas Regulatory Setting

2.2.1 International

Many countries around the globe have made an effort to reduce GHGs since climate change is a global issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020; a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

2.2.2 National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The second phase of the national program would involve

proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and CO₂ standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO₂ standards for model year 2020 are 43.7 mpg and 204 grams of CO₂ per mile for passenger cars and 31.3 mpg and 284 grams of CO₂ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO₂-equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.¹

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. The following link provides more information on the EPA Plan: <https://www.epa.gov/arc-x/planning-climate-change-adaptation>

2.2.3 California

California Code of Regulations (CCR) Title 24, Part 6. CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in

¹ National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: <https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf>.

response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013, 2016, and 2019 standards have been approved and became effective July 1, 2014, January 1, 2016, and January 1, 2020, respectively.

California Code of Regulations (CCR) Title 24, Part 11. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The following links provide more information on Title 24, Part 11:

<https://www.dgs.ca.gov/BSC/Codes>

https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

California Green Building Standards On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle, during the 2016 to 2017 fiscal year. During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle.

The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The 2019 CalGreen Code includes the following changes and/or additional regulations:

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity

generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades².

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the post-construction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require post-construction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of post-construction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regards to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regards to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regards to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regards to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13.

² https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official. The following link provides more on CalGreen Building Standards:

<http://www.bsc.ca.gov/Home/CALGreen.aspx>

Executive Order S-3-05. California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following targets:

- By 2010, California shall reduce greenhouse gas emissions to 2000 levels;
- By 2020, California shall reduce greenhouse gas emissions to 1990 levels.
- By 2050, California shall reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-01-07. Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard and began implementation on January 1, 2011. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are “back-loaded”, with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today’s fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

SB 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor’s Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.

- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation.”
- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO₂e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a “business as usual” scenario are estimated to be 596 MMTCO₂e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO₂e by 2020, representing approximately 25 percent of the 2020 target.

The ARB’s Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020 with a further goal of 40 percent below 2020 levels by 2030 established in 2017 (California Air Resources Board 2017). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.⁴

Senate Bill 100. Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

SB 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years

if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at 15 percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements.

On September 3, 2020, SCAG's Regional Council approved and fully adopted the Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy), and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than \$638 billion in transportation system investments through 2045. Connect SoCal is supported by a combination of transportation and land use strategies that help the region achieve state greenhouse gas emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry and utilize resources more efficiently. By integrating the Forecasted Development Pattern with a suite of financially constrained transportation investments, Connect SoCal can reach the regional target of reducing greenhouse gases, or GHGs, from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels).

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Assembly Bill 939, Assembly Bill 341, and Senate Bill 1374. Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. AB 341 requires at least 75 percent of generated waste be source reduced, recycled, or composted by the year 2020. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resource Agency 2009) was adopted, which is the "... first statewide, multi-sector, region-specific, and information-based climate change in California,

identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. Executive Order B-30-15, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15. Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage and was signed into law on April 1, 2015.

Executive Order B-37-16. Executive Order B-37-16, continuing the State's adopted water reduction, was signed into law on May 9, 2016. The water reduction builds off the mandatory 25% reduction called for in EO B-29-15.

Executive Order N-79-20. Executive Order N-79-20 was signed into law on September 23, 2020 and mandates 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the state be zero-emission vehicles by 2045 for all operations where feasible and by 2035 for drayage trucks; and to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

The Project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD Threshold Development

The SCAQMD has established recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"). SCAQMD has published a five-tiered draft GHG threshold which includes a 10,000 metric ton of CO₂e per year for stationary/industrial sources and 3,000 metric tons of CO₂e per year significance threshold for residential/commercial projects (South Coast Air Quality Management District 2010c). Tier 3 is anticipated to be the primary tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD's annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO₂e per year
 - Based on land use types: residential is 3,500 MTCO₂e per year; commercial is 1,400 MTCO₂e per year; and mixed use is 3,000 MTCO₂e per year
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

2.2.5 Local

The City of Artesia does not currently have a Climate Action Plan.

City of Artesia General Plan

The City of Artesia General Plan 2030 Community Resources and Wellness Element under Air Quality and Climate Change and Sustainability Element under Energy contain the following greenhouse gas-related goals and policies that are applicable to the proposed project:

Community Goal AQ 2

The City's greenhouse gas and toxic air contaminant emissions are reduced.

Policies

- AQ 2.1** Encourage and, where feasible, mandate the implementation of best practices towards reducing greenhouse gas emissions.

- AQ 2.2** Promote a balance of residential, commercial, institutional and recreational uses with adjacencies that reduce vehicle miles traveled.
- AQ 2.3** Cooperate with the State, the Southern California Association of Governments, and the Gateway Cities Council of Governments to achieve mandates imposed by AB 32, which calls for reduction of greenhouse gas emissions to 1990 levels by 2020; by Executive Order S-3-05, which calls for a reduction of GHG emissions to 80% below 1990 levels by 2050; and by SB 375, which promotes and prioritizes transit-oriented development.

Community Goal SUS 1

Reduce municipal, commercial and residential dependence on fossil fuels.

Policies

- AQ SUS 1.2** Promote community use of energy efficient practices and technologies.
- AQ SUS 1.3** Encourage the use of renewable energy technology citywide.

Therefore, to determine whether the project's GHG emissions are significant, this analysis initially uses the SCAQMD draft local agency tier 3 screening threshold of 3,000 MTCO₂e and then interpolated tier 4 thresholds using the 2020 and 2035 Tier 4 SCAQMD Service Population thresholds.³

The project will be subject to the latest requirements of the California Green Building and Title 24 Energy Efficiency Standards (currently 2019) which would reduce project-related greenhouse gas emissions.

³ The opening year for Phase 1 is 2024, while the Future Phases were modeled as having an opening year no sooner than 2025. The Phase 1 SCAQMD Tier 4 threshold was interpolated by using the 4.8 MTCO₂e/SP/year threshold for Year 2020 and the 3.0 MTCO₂e/SP/year threshold for year 2035 for projects, while the Future Phases and total Specific Plan (Phase 1 and Future Phases combined) emission threshold was interpolated by using the 6.6 MTCO₂e/SP/year threshold for Year 2020 and the 4.1 MTCO₂e/SP/year threshold for Year 2035 for plans. Therefore, the Phase 1 Year 2024 interpolated threshold is 4.32 MTCO₂e/SP/year and the Year 2025 threshold for the Future Phases and total Specific Plan (Phase 1 and Future Phases combined) is 5.75 MTCO₂e/SP/year.

3.0 Setting

3.1 Existing Physical Setting

The proposed Specific Plan is located in the City of Artesia, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

3.1.1 Local Climate and Meteorology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthy air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high

enough to pass over the mountains and ultimately dilute the smog cloudtrap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the City of Montebello, closest station with data, are in Table 3. Table 3 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 3: Meteorological Summary

Month	Temperature (°F)		Average Precipitation (inches)
	Average High	Average Low	
January	70.3	47.4	3.48
February	71.1	48.7	3.33
March	73.6	50.5	2.60
April	77.5	53.3	0.88
May	79.9	57.3	0.26
June	83.5	60.6	0.05
July	88.6	64.1	0.00
August	89.9	64.9	0.17
September	88.0	63.2	0.36
October	82.7	58.2	1.24
November	73.1	50.0	2.32
December	70.9	47.3	14.72
Annual Average	79.3	55.6	13.3
Notes:			
¹ Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5790			

3.1.2 Local Air Quality

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The proposed Specific Plan is located in the City of Artesia in the Southeast Los Angeles County (Area 5). The nearest air monitoring station to the proposed Specific Plan site is the Compton – 7—North Bullis Road Station (Compton Station). The

Compton Station is located approximately 7.15 miles northwest of the Specific Plan site boundaries, at 700 North Bullis Road, Compton; however this location does not provide all ambient weather data. Therefore, additional data was pulled from the SCAQMD historical data for the South Central LA County SRA 12 (as data was not available for SRA 5, and SRA 12 lies adjacent to the west of SRA 5) for both sulfur dioxide and carbon monoxide and from the Long Beach – 2425 Webster Street Station (Long Beach Station) to provide the existing levels. The Long Beach Station is located approximately 9.45 miles southwest of the Specific Plan site boundaries, at 2425 Webster Street, Long Beach. Table 4 presents the monitored pollutant levels within the vicinity. However, it should be noted that due to the air monitoring station distance from the Specific Plan site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

Table 4: Local Area Air Quality Levels

Pollutant (Standard) ²	Year		
	2018	2019	2020
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.075	0.100	0.152
Days > CAAQS (0.09 ppm)	0	1	3
Maximum 8-Hour Concentration (ppm)	0.064	0.079	0.115
Days > NAAQS (0.07 ppm)	0	1	4
Days > CAAQS (0.070 ppm)	0	1	4
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	4.7	3.8	4.5
Days > NAAQS (20 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	3.5	3.2	3.1
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppm)	0.068	0.070	0.072
Days > NAAQS (0.25 ppm)	0	0	0
Sulfur Dioxide:			
Maximum 1-Hour Concentration (ppm)	*	*	*
Days > CAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour Concentration (ug/m ³)	84.0	155.8	61.6
Days > NAAQS (150 ug/m ³)	0	1	0
Days > CAAQS (50 ug/m ³)	4	4	3
Annual Average (ug/m ³)	32.7	29.7	31.8
Annual > NAAQS (50 ug/m ³)	No	No	No
Annual > CAAQS (20 ug/m ³)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour Concentration (ug/m ³)	49.4	39.5	67.5
Days > NAAQS (35 ug/m ³)	2	1	19
Annual Average (ug/m ³)	13.2	10.8	14.6
Annual > NAAQS (15 ug/m ³)	No	No	No
Annual > CAAQS (12 ug/m ³)	Yes	No	Yes
¹ Source: obtained from https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year and /or https://www.arb.ca.gov/adam/topfour/topfour1.php ² CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million ³ No data available.			

The monitoring data presented in Table 4 shows that ozone and particulate matter (PM10 and PM2.5) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone

During the 2018 to 2020 monitoring period, the State 1-hour concentration standard for ozone has been exceeded for only one day in 2019 and three days in 2020 at the Compton Station. The State 8-hour ozone standard has been exceeded for only one day in 2019 and four days in 2020 over the past three years at the Compton Station. The Federal 8-hour ozone standard has been exceeded for only one day in 2019 and four days in 2020 over the past three years at the Compton Station

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The South Central LA County Area did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide

The Compton Station did not record an exceedance of the State or Federal NO₂ standards for the last three years.

Sulfur Dioxide

The South Central LA County Area did not record an exceedance of the State SO₂ standards for the last three years.

Particulate Matter

During the 2018 to 2020 monitoring period, the State 24-hour concentration standard for PM10 was exceeded between three and four days each year at the Long Beach Station. Over the same time period, the Federal 24-hour and annual standards for PM10 has been exceeded for only one day in 2019 at the Long Beach Station.

During the 2018 to 2020 monitoring period, the Federal 24-hour standard for PM2.5 was exceeded between one and 19 days each year at the Compton Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered

sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

3.1.3 Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or ‘form’ of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard. Table 5 lists the attainment status for the criteria pollutants in the basin.

Table 5: South Coast Air Basin Attainment Status

Pollutant	Standard ¹	Averaging Time	Designation ²	Attainment Date ³
1-Hour Ozone	NAAQS	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (not attained) ⁴
	CAAQS	1-Hour (0.09 ppm)	Nonattainment	N/A
8-Hour Ozone ⁵	NAAQS	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	NAAQS	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	7/20/2032
	NAAQS	2015 8-Hour (0.070 ppm)	Nonattainment (Extreme)	8/3/2038
	CAAQS	8-Hour (0.070 ppm)	Nonattainment	Beyond 2032
CO	NAAQS	1-Hour (35 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	CAAQS	8-Hour (9 ppm)	Attainment	6/11/2007 (attained)
NO ₂ ⁶	NAAQS	1-Hour (0.1 ppm)	Unclassifiable/Attainment	N/A (attained)
	NAAQS	Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
	CAAQS	1-hour (0.18 ppm) Annual (0.030 ppm)	Attainment	-
SO ₂ ⁷	NAAQS	1-Hour (75 ppb)	Designations Pending (expect Uncl./Attainment)	N/A (attained)

	NAAQS	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/Attainment	3/19/1979 (attained)
PM10	NAAQS	1987 24-Hour (150 µg/m ³)	Attainment (Maintenance) ⁸	7/26/2013 (attained)
	CAAQS	24-Hour (50 µg/m ³) Annual (20 µg/m ³)	Nonattainment	N/A
PM2.5 ⁹	NAAQS	2006 24-Hour (35 µg/m ³)	Nonattainment (Serious)	12/31/2019
	NAAQS	1997 Annual (15.0 µg/m ³)	Attainment	8/24/2016
	NAAQS	2021 Annual (12.0 µg/m ³)	Nonattainment (Serious)	12/31/2025
	CAAQS	Annual (12.0 µg/m ³)	Nonattainment	N/A
Lead	NAAQS	3-Months Rolling (0.15 µg/m ³)	Nonattainment (Partial) ¹⁰	12/31/2015

Notes:
Source: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf>
¹ NAAQS = National Ambient Air Quality Standards, CAAQS = California Ambient Air Quality Standards
² U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable.
³ A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.
⁴ 1-hour O3 standard (0.12 ppm) was revoked, effective June 15, 2005 ; however, the Basin has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements.
⁵ 1997 8-hour O3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the revoked 1997 O3 standard is still subject to anti-backsliding requirements.
⁶ New NO2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO2 standard retained.
⁷ The 1971 annual and 24-hour SO2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO2 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.
⁸ Annual PM10 standard was revoked, effective December 18, 2006; 24-hour PM10 NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM10 maintenance plan was approved by U.S. EPA on June 26, 2013, effective July 26, 2013.
⁹ Attainment deadline for the 2006 24-Hour PM2.5 NAAQS (designation effective December 14, 2009) is December 31, 2019 (end of the 10th calendar year after effective date of designations for Serious nonattainment areas). Annual PM2.5 standard was revised on January 15, 2013, effective March 18, 2013, from 15 to 12 µg/m3. Designations effective April 15, 2015, so Serious area attainment deadline is December 31, 2025.
¹⁰ Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.

3.2 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of

the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO₂ and nitrous oxide (NO₂) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Table 6 provides a description of each of the greenhouse gases and their global warming potential.

Additional information is available: <https://www.arb.ca.gov/cc/inventory/data/data.htm>

<Table 6 on next page>

Table 6: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N ₂ O), also known as laughing gas is a colorless gas. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N ₂ O.
Methane	Methane (CH ₄) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 25.	A natural source of CH ₄ is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms. Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone, therefore their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years. They have a global warming potential range of 6,200 to 9,500.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF ₆) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
Notes: 1. Sources: Intergovernmental Panel on Climate Change 2014a and Intergovernmental Panel on Climate Change 2014b. https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html		

4.0 Modeling Parameters and Assumptions

4.1 Construction

Typical emission rates from construction activities were obtained from CalEEMod Version 2020.4.0. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the southwestern portion of Los Angeles County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions were calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

The analysis assesses the emissions associated with the construction of Phase 1 as well as the Future Phases of the Specific Plan as indicated in Table 1. Per the applicant, construction of Phase 1 is anticipated to start late 2022 and last approximately 24 months ending in late 2024; therefore, construction of Phase 1 has been estimated to start no sooner than the beginning of October 2022 and be completed by the beginning of October 2024. It has been assumed that construction of the Future Phases would not begin until Phase 1 has been completed.⁴ The phases of the construction activities which have been analyzed for both Phase 1 and the Future Phases of the Specific Plan below are: 1) demolition, 2) grading, 3) building, 4) paving, and 5) architectural coating. Phase 1 is to have up to approximately 436 cubic yards of import during grading and, as construction is unknown at this time, the Future Phases of the Specific Plan were assumed to have a balanced site. For details on construction modeling and construction equipment for each phase for both Phase 1 and the Future Phases, please see Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (Specific Plan is approximately 4.22 acres, including Phase 1 at approximately 2.65 acres and Future Phases at approximately 1.57 acres) and the fact that the project won't export

⁴ The Future Phases were assumed to begin no sooner than early October 2024 and utilized CalEEMod default construction timing and equipment.

more than 5,000 cubic yards of material a day a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 is required.

4.2 Operations

Operational or long-term emissions occur over the life of the Project. Both mobile and area sources generate operational emissions. Area source emissions arise from consumer product usage, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile source emissions from motor vehicles are the largest single long-term source of air pollutants from the operation of the Project. Small amounts of emissions would also occur from area sources such as the consumption of natural gas for heating, hearths, from landscaping emissions, and consumer product usage. The operational emissions were estimated using the latest version of CalEEMod.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project are based upon the trip generation rates give in the Traffic Scoping Agreement and emails provided by TJW Engineering, Inc. which uses the ITE 10th Trip Generation Manual.⁵ The trip generation provided shows a trip generation rate of 5.44 trips per dwelling unit for the multi-family uses and 37.75 trips per thousand square feet for the commercial uses for both Phase 1 and the Future Phases of the Specific Plan.

The program then applies the emission factors for each trip which is provided by the EMFAC2017 model to determine the vehicular traffic pollutant emissions. The CalEEMod default trip lengths were used in this analysis. Please see CalEEMod output comments sections in Appendix A and B for details.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after January 1, 2014 will be limited to an average of 50 grams per liter or less for buildings and 100

⁵ The email provided by TJW Engineering, Inc. with the trip generation for both Phase 1 and the Future Phases of the Specific Plan has been provided in Appendix A.

grams per liter or less for parking lot striping. CalEEMod architectural coating default values were adjusted accordingly.

Energy Usage

2020.4.0 CalEEMod defaults were utilized.

4.3 Localized Construction Analysis

The SCAQMD has published a “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds” (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2. The maximum number of acres disturbed on the peak day.
3. Any emission control devices added onto off-road equipment.
4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The construction equipment showing the equipment associated with the maximum area of disturbance for both the Project and the Remaining Specific Plan Area is shown in Table 7.

Table 7: Construction Equipment Assumptions¹

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Phase 1				
Demolition	Rubber Tired Dozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	3	0.5	1.5
Total Per Phase				2.0
Site Preparation	Graders	1	0.5	0.5
	Scraper	1	1	1
	Tractors/Loaders/Backhoes	1	0.5	0.5
Total Per Phase				2.0
Grading	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	2	0.5	1.0
Total Per Phase				2.0

Table 7: Construction Equipment Assumptions – Cont.

Future Phases				
Demolition	Rubber Tired Dozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	3	0.5	1.5
Total Per Phase				2.0
Site Preparation	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	1	0.5	0.5
Total Per Phase				1.5
Grading	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	2	0.5	1.0
Total Per Phase				2.0
Notes:				
¹ Source: CalEEMod output and South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2				

As shown in Table 7, the maximum number of acres disturbed in a day would be 2 acres during demolition and grading for both Phase 1 and the Future Phases of the Specific Plan.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were based on the Southeast Los Angeles County source receptor area (SRA 5) and a disturbance of 2 acres per day at a distance of 25 meters (82 feet). According to LST methodology, any receptor located closer than 25 meters should be based on the 25 meter threshold. The closest receptors are the single-family residential uses located adjacent to the south and west of the Specific Plan Area; therefore, the 25 meters threshold was used.

4.4 Localized Operational Analysis

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The proposed project is a Specific plan containing residential and commercial retail uses and does not include such uses. Therefore, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is warranted.

5.0 Thresholds of Significance

5.1 Air Quality Thresholds of Significance

5.1.1 CEQA Guidelines for Air Quality

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

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

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. There are daily emission thresholds for construction and operation of a proposed project in the basin.

5.1.2 Regional Significance Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions are established for the Basin:

- 75 pounds per day (lbs/day) of VOC
- 100 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM₁₀
- 55 lbs/day of PM_{2.5}
- 150 lbs/day of SO₂

Projects in the basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under SCAQMD guidelines.

5.1.3 Regional Significance Thresholds for Operational Emissions

The daily operational emissions significance thresholds for the basin are as follows:

- 55 pounds per day (lbs/day) of VOC
- 55 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM₁₀
- 55 lbs/day of PM_{2.5}
- 150 lbs/day of SO₂

Local Microscale Concentration Standards The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

5.1.4 Thresholds for Localized Significance

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO₂, CO, PM₁₀, and PM_{2.5}.

The emission thresholds were calculated based on the Southeast LA County source receptor area (SRA 5) and a disturbance of 2 acres per day at a distance of 25 meters, for construction.

5.2 Greenhouse Gas Thresholds of Significance

5.2.1 CEQA Guidelines for Greenhouse Gas

CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

- (a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

- (b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency. As previously discussed (Section 2.2.4 of this report), this analysis initially uses the SCAQMD draft local agency tier 3 screening threshold of 3,000 MTCO₂e and then interpolated tier 4 thresholds using the 2020 and 2035 Tier 4 SCAQMD Service Population thresholds.⁶

⁶ The opening year for Phase 1 is 2024, while the Future Phases were modeled as having an opening year no sooner than 2025. The Phase 1 SCAQMD Tier 4 threshold was interpolated by using the 4.8 MTCO₂e/SP/year threshold for Year 2020 and the 3.0 MTCO₂e/SP/year threshold for year 2035 for projects, while the Future Phases and total Specific Plan (Phase 1 and Future Phases combined) emission threshold was interpolated by using the 6.6 MTCO₂e/SP/year threshold for Year 2020 and the 4.1 MTCO₂e/SP/year threshold for Year 2035 for plans. Therefore, the Phase 1 Year 2024 interpolated threshold is 4.32 MTCO₂e/SP/year and the Year 2025 threshold for the Future Phases and total Specific Plan (Phase 1 and Future Phases combined) is 5.75 MTCO₂e/SP/year.

6.0 Air Quality Emissions Impact

6.1 Construction Air Quality Emissions Impact

The latest version of CalEEMod was used to estimate the onsite and offsite construction emissions. The emissions incorporate Rule 402 and 403. Rule 402 and 403 (fugitive dust) are not considered mitigation measures as the project by default is required to incorporate these rules during construction.

6.1.1 Regional Construction Emissions

The construction emissions for Phase 1 of the Specific Plan would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 8, and therefore would be considered less than significant.

Table 8: Regional Significance - Construction Emissions (pounds/day) – Phase 1

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Demolition						
On-Site ²	1.69	16.62	13.96	0.02	0.93	0.80
Off-Site ³	0.05	0.23	0.55	0.00	0.17	0.05
Total	1.74	16.85	14.52	0.03	1.10	0.84
Site Preparation						
On-Site ²	1.38	15.67	10.06	0.02	0.78	0.57
Off-Site ³	0.06	1.07	0.55	0.00	0.20	0.06
Total	1.44	16.74	10.61	0.03	0.98	0.63
Grading						
On-Site ²	1.54	16.98	9.22	0.02	3.50	2.02
Off-Site ³	0.06	0.78	0.56	0.00	0.19	0.06
Total	1.60	17.76	9.78	0.02	3.70	2.07
Building Construction						
On-Site ²	1.86	14.60	14.35	0.03	0.70	0.67
Off-Site ³	0.26	0.89	2.68	0.01	0.79	0.22
Total	2.11	15.49	17.03	0.03	1.50	0.89
Paving						
On-Site ²	0.92	8.10	11.71	0.02	0.40	0.37
Off-Site ³	0.05	0.03	0.51	0.00	0.17	0.05
Total	0.97	8.14	12.21	0.02	0.56	0.41
Architectural Coating						
On-Site ²	19.49	1.22	1.81	0.00	0.06	0.06
Off-Site ³	0.04	0.03	0.40	0.00	0.13	0.04
Total	19.53	1.25	2.21	0.00	0.20	0.10
Total of overlapping phases⁴	22.62	24.87	31.46	0.06	2.26	1.40
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	No	No	No	No	No	No
Notes: ¹ Source: CalEEMod Version 2020.4.0 ² On-site emissions from equipment operated on-site that is not operated on public roads. ³ Off-site emissions from equipment operated on public roads. ⁴ Construction, architectural coatings and paving phases may overlap.						

The construction emissions for the Future Phases of the Specific Plan would also not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 9, and therefore would be considered less than significant.

Table 9: Regional Significance - Construction Emissions (pounds/day) – Future Phases

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Demolition						
On-Site ²	1.44	13.89	13.49	0.02	0.90	0.63
Off-Site ³	0.05	0.46	0.55	0.00	0.20	0.06
Total	1.49	14.35	14.04	0.03	1.10	0.69
Site Preparation						
On-Site ²	1.11	11.84	6.63	0.02	2.74	1.60
Off-Site ³	0.04	0.97	0.52	0.00	0.22	0.06
Total	1.15	12.81	7.15	0.02	2.96	1.66
Grading						
On-Site ²	1.30	13.82	8.70	0.02	3.33	1.86
Off-Site ³	0.03	0.02	0.34	0.00	0.11	0.03
Total	1.33	13.84	9.04	0.02	3.45	1.89
Building Construction						
On-Site ²	1.42	11.06	12.52	0.02	0.45	0.43
Off-Site ³	0.13	0.49	1.49	0.01	0.52	0.14
Total	1.55	11.55	14.01	0.03	0.97	0.58
Paving						
On-Site ²	0.57	5.33	8.80	0.01	0.25	0.23
Off-Site ³	0.04	0.03	0.41	0.00	0.15	0.04
Total	0.61	5.35	9.20	0.01	0.39	0.27
Architectural Coating						
On-Site ²	56.89	1.15	1.81	0.00	0.05	0.05
Off-Site ³	0.02	0.02	0.25	0.00	0.09	0.02
Total	56.92	1.16	2.06	0.00	0.14	0.08
Total of overlapping phases⁴	59.08	18.07	25.28	0.05	1.50	0.92
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	No	No	No	No	No	No
Notes: ¹ Source: CalEEMod Version 2020.4.0 ² On-site emissions from equipment operated on-site that is not operated on public roads. ³ Off-site emissions from equipment operated on public roads. ⁴ Construction, architectural coatings and paving phases may overlap.						

6.1.2 Localized Construction Emissions

The data provided in Table 10 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors for Phase 1 and the Future Phases of the Specific Plan. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 10: Localized Significance – Construction

Phase	On-Site Pollutant Emissions (pounds/day) ¹			
	NOx	CO	PM10	PM2.5
Phase 1				
Demolition	16.62	13.96	0.93	0.80
Site Preparation	15.67	10.06	0.78	0.57
Grading	16.98	9.22	3.50	2.02
Building Construction	14.60	14.35	0.70	0.67
Paving	8.10	11.71	0.40	0.37
Architectural Coating	1.22	1.81	0.06	0.06
Total of overlapping phases	23.93	27.87	1.16	1.10
SCAQMD Threshold for 25 meters (82 feet) or less²	114	861	7	4
Exceeds Threshold?	No	No	No	No

Future Phases				
Demolition	13.89	13.49	0.90	0.63
Site Preparation	11.84	6.63	2.74	1.60
Grading	13.82	8.70	3.33	1.86
Building Construction	11.06	12.52	0.45	0.43
Paving	5.33	8.80	0.25	0.23
Architectural Coating	1.15	1.81	0.05	0.05
Total of overlapping phases	17.54	23.12	0.75	0.71
SCAQMD Threshold for 25 meters (82 feet) or less²	114	861	7	4
Exceeds Threshold?	No	No	No	No
Notes:				
¹ Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for two acres, to be conservative, in Southeast LA County Receptor Area (SRA 5). Both Phase 1 and the Future Phases will disturb a maximum of 2 acres per day (see Table 7).				
² The nearest sensitive receptor is located adjacent to the west and south of the project site; therefore, the 25-meter threshold has been used.				

6.1.3 Construction-Related Human Health Impacts

Regarding health effects related to criteria pollutant emissions, the applicable significance thresholds are established for regional compliance with the state and federal ambient air quality standards, which are intended to protect public health from both acute and long-term health impacts, depending on the potential effects of the pollutant. Because regional and local emissions of criteria pollutants during construction of the Specific Plan (including Phase 1 and the Future Phases) would be below the applicable thresholds, they would not contribute to long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, significant adverse acute health impacts as a result of construction are not anticipated.

6.1.4 Odors

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Diesel exhaust and VOCs would be emitted during construction of the Specific Plan (Phase 1 and the Future Phases), which are objectionable to some;

however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the Specific Plan (Phase 1 and the Future Phases).

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the Specific Plan (Phase 1 and the Future Phases) would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Potential sources that may emit odors during the on-going operations of the Specific Plan (Phase 1 and the Future Phases) would include odor emissions from diesel truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the Specific Plan (Phase 1 and the Future Phases).

6.1.5 Construction-Related Toxic Air Contaminant Impact

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed Specific Plan (Phase 1 and the Future Phases). The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the relatively limited number of heavy-duty construction equipment and construction schedule, the Specific Plan (Phase 1 and the Future Phases) would not result in a long-term substantial source of toxic air containment emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the Specific Plan (Phase 1 and the Future Phases).

6.2 Operational Air Quality Emissions Impact

6.2.1 Regional Operational Emissions

The operations-related criteria air quality impacts created by the Specific Plan have been analyzed through the use of CalEEMod model. The operating emissions were based on year 2024 for Phase 1 and,

to be conservative, the year 2025 for the Future Phases of the Specific Plan.⁷ The summer and winter emissions created by Phase 1, Future Phases, and the total Specific Plan (Phase 1 and Future Phases combined) long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 11.

Table 11: Regional Significance - Unmitigated Operational Emissions (lbs/day)

Activity	Pollutant Emissions (pounds/day) ¹					
	VOC	NOx	CO	SO2	PM10	PM2.5
Phase 1						
Area Sources ²	1.66	0.94	5.24	0.01	0.10	0.10
Energy Usage ³	0.02	0.20	0.08	0.00	0.02	0.02
Mobile Sources ⁴	1.45	1.53	14.16	0.03	3.24	0.88
Total Emissions	3.13	2.66	19.48	0.04	3.35	0.99
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Future Phases						
Area Sources ²	12.21	0.87	23.64	0.05	3.07	3.07
Energy Usage ³	0.02	0.15	0.07	0.00	0.01	0.01
Mobile Sources ⁴	4.33	4.15	38.56	0.08	8.81	2.39
Total Emissions	16.55	5.17	62.27	0.13	11.89	5.47
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Total Emissions from Specific Plan (Phase 1 & Future Phases combined)						
	19.68	7.83	81.76	0.17	15.25	6.46
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Notes:						
¹ Source: CalEEMod Version 2020.4.0						
² Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.						
³ Energy usage consists of emissions from on-site natural gas usage.						
⁴ Mobile sources consist of emissions from vehicles and road dust.						

Table 11 provides the unmitigated operational emissions. Table 11 shows that the Phase 1, Future Phases, and total Specific Plan (Phase 1 and Future Phases combined) do not exceed the SCAQMD daily emission threshold and regional operational emissions are considered to be less than significant.

⁷ Per the project applicant, it was assumed that the development of the Future Phases of the Specific Plan would occur after the completion of Phase 1 construction; therefore, using CalEEMod default construction timing for the , the earliest operational year for the Future Phases would be 2025.

6.2.2 Localized Operational Emissions

Table 12 shows the calculated emissions for the proposed operational activities compared with appropriate LSTs for Phase 1. The LST analysis only includes on-site sources; however, the CalEEMod software outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in Table 12 include all on-site project-related stationary sources and 10% of the project-related new mobile sources.⁸ This percentage is an estimate of the amount of project-related new vehicle traffic that will occur on-site.

Table 12: Localized Significance – Phase 1 Unmitigated Operational Emissions

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day) ¹			
	NOx	CO	PM10	PM2.5
Phase 1				
Area Sources ²	1.66	5.24	0.10	0.10
Energy Usage ³	0.02	0.08	0.02	0.02
On-Site Vehicle Emissions ⁴	0.15	1.42	0.32	0.09
Total Emissions	1.82	6.74	0.44	0.20
SCAQMD Threshold for 25 meters (82 feet)⁵	114	861	2	1
Exceeds Threshold?	No	No	No	No
Notes: ¹ Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for two acres, to be conservative, in Southeast LA County Receptor Area (SRA 5). ² Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment. ³ Energy usage consists of emissions from generation of electricity usage. ⁴ On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust. ⁵ The nearest sensitive receptor is located adjacent to the west and south of the project site; therefore, the 25-meter threshold has been used.				

Table 12 indicates that the local operational emission would not exceed the LST thresholds at the nearest sensitive receptors, located adjacent to the project. Therefore, the project will not result in significant Localized Operational emissions.

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the Specific Plan vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

As stated previously, according to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer

⁸ The project site is approximately 0.08 miles in length at its longest point; therefore the on-site mobile source emissions represent approximately 1/86th of the shortest CalEEMod default distance of 6.9 miles. Therefore, to be conservative, 1/10th the distance (dividing the mobile source emissions by 10) was used to represent the portion of the overall mobile source emissions that would occur on-site.

facilities. The proposed future phases of the Specific Plan contain mixed-use residential and commercial uses and does not include such uses. Therefore, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is warranted.

6.2.3 Operations-Related Human Health Impacts

As stated previously, regarding health effects related to criteria pollutant emissions, the applicable significance thresholds are established for regional compliance with the state and federal ambient air quality standards, which are intended to protect public health from both acute and long-term health impacts, depending on the potential effects of the pollutant. Because regional and local emissions of criteria pollutants during operation of the Specific Plan (Phase 1 and Future Phases combined) would be below the applicable thresholds, it would not contribute to long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, significant adverse acute health impacts as a result of operation are not anticipated.

6.3 CO Hot Spot Emissions

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented in above in Section 5.0.

To determine if the Specific Plan could cause emission levels in excess of the CO standards discussed above in Section 5.0, a sensitivity analysis is typically conducted to determine the potential for CO “hot spots” at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, “hot spots” potentially can occur at high traffic volume intersections with a Level of Service E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no “hot spots” anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere in Los Angeles County. If the worst-case intersections in the air basin have no “hot spot” potential, any local impacts will be below thresholds.

The trip generation provided by TJW Engineering, Inc. showed that the total Specific Plan would generate up to 8,864 daily vehicle trips with 259 trips during the AM peak hour and 876 trips during the PM peak hour. The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. The volume of traffic at project buildout would be well below 100,000 vehicles and below the necessary volume to even get close to causing a violation of the CO standard. Therefore no

CO “hot spot” modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the Specific Plan.

6.4 Cumulative Regional Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project’s air quality must be generic by nature.

The project area is out of attainment for both ozone and PM10 particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. The project does not exceed any of the thresholds of significance and therefore is considered less than significant.

6.5 Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region’s ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- (2) Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that, long-term operations impacts will not result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the proposed Specific Plan is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

B. Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2016-2040 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2016, includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Artesia Land Use Plan defines the assumptions that are represented in the AQMP.

The project site is currently zoned as Light Manufacturing and Industrial and Pioneer Boulevard Commercial. The project is the preparation of a specific plan (Arkansas Street Specific Plan) over approximately 4.22-acres. Included in the full Specific Plan proposal are the following:

- General Plan Amendment to add the new Arkansas Street Specific Plan to the General Plan and change the land use designation from Light Manufacturing and Industrial and Pioneer Boulevard Commercial to Arkansas Mixed-Use
- Specific Plan – Arkansas Street Specific Plan (4.22 acres)
- Change of Zone from Light Manufacturing and Industrial (M-1) and Commercial General (C-G) to Specific Plan (SP) Zone – Arkansas Specific Plan

Therefore, the project is not currently consistent with the existing land use and zoning designations. However, once the GPA and Zone Change is approved, the project would be consistent with the General

Plan land use designations. Although the project, GPA, and Zone Change may initially result in an inconsistency with the AQMP on paper, the inconsistency would not necessarily constitute a conflict with the AQMP. The SCAQMD acknowledges that strict consistency with all aspects of the AQMP is not required in order to make a finding of no conflict. Rather, a project is considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The project would implement contemporary energy-efficient technologies and regulatory/operational programs required per Title 24, CalGreen and City standards. Generally, compliance with SCAQMD emissions reductions and control requirements also act to reduce project air pollutant emissions. In combination, project emissions-reducing design features and regulatory/operational programs are consistent with and support overarching AQMP air pollution reduction strategies. Project support of these strategies promotes timely attainment of AQMP air quality standards and would bring the project into conformance with the AQMP. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

7.0 Greenhouse Gas Impact Analysis

7.1 Construction Greenhouse Gas Emissions Impact

The greenhouse gas emissions from construction equipment and worker vehicles are shown in Table 13. The emissions are from all phases of construction for both Phase 1 and the Future Phases of the Specific Plan. The total construction emissions amortized over a period of 30 years are estimated at 23.41 metric tons of CO₂e per year for Phase 1 and 9.11 metric tons of CO₂e per year for the Future Phases of the Specific Plan. Annual CalEEMod output calculations are provided in Appendix B.

Table 13: Construction Greenhouse Gas Emissions

Activity	Emissions (MTCO ₂ e) ¹		
	Onsite	Offsite	Total
Phase 1			
Demolition	39.24	3.50	42.74
Site Preparation	5.43	1.15	6.58
Grading	9.12	1.85	10.97
Building Construction	446.58	173.99	620.57
Paving	16.42	1.37	17.79
Coating	2.68	1.10	3.78
Total	519.48	182.96	702.45
Averaged over 30 years²	17.32	6.10	23.41
Future Phases			
Demolition	21.23	3.03	24.26
Site Preparation	1.52	0.49	2.02
Grading	3.65	0.17	3.82
Building Construction	182.37	52.60	234.98
Paving	5.93	0.55	6.49
Coating	1.28	0.34	1.62
Total	215.98	57.20	273.18
Averaged over 30 years²	7.20	1.91	9.11
Notes: ¹ MTCO ₂ e=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane and nitrous oxide). ² The emissions are averaged over 30 years because the average is added to the operational emissions, pursuant to SCAQMD. * CalEEMod output (Appendix B)			

7.2 Operational Greenhouse Gas Emissions Impact

Operational emissions occur over the life of the proposed Specific Plan. The operational emissions for the Specific Plan include 688.77 metric tons of CO₂e per year resulting in 3.84 metric tons of CO₂e per service population per year for Phase 1, 1,353 metric tons of CO₂e per year resulting in 7.48 metric tons of CO₂e per service population per year for the Future Phases, and 2,042 metric tons of CO₂e per year resulting in 5.67 metric tons of CO₂e per service population per year for the total Specific Plan (Phase 1 and Future Phases combined) (as shown in Table 14). The emissions for Phase 1 do not exceed the SCAQMD screening threshold of 3,000 metric tons of CO₂e per year or the interpolated Year 2024

SCAQMD tier 4 service population threshold of 4.32 metric tons of CO₂e per service population per year for projects. The Future Phases does not exceed the SCAQMD screening threshold but does exceed the interpolated Year 2025 SCAQMD tier 4 service population threshold of 5.75 metric tons of CO₂e per service population per year for plans.^{9,10} However, as the total Specific Plan (Phase 1 and Future Phases combined) does not exceed either of the SCAQMD thresholds, the impact is not significant. Annual CalEEMod output calculations are provided in Appendix B.

Table 14: Unmitigated Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year) ¹					
	Bio-CO ₂	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Phase 1						
Area Sources ²	0.00	13.75	13.75	0.00	0.00	13.85
Energy Usage ³	0.00	94.14	94.14	0.01	0.00	94.66
Mobile Sources ⁴	0.00	511.96	511.96	0.04	0.02	519.54
Solid Waste ⁵	6.64	0.00	6.64	0.39	0.00	16.44
Water ⁶	1.34	15.03	16.37	0.14	0.00	20.87
Construction ⁷	0.00	23.21	23.21	0.00	0.00	23.41
Total Emissions	7.98	658.08	666.06	0.58	0.03	688.77
SCAQMD Draft Screening Threshold						3,000
Exceeds Threshold?						No
Total Emissions⁸						3.84
Interpolated Year 2024 Service Population Threshold for Project⁹						4.32
Exceeds Threshold?						No

⁹ The opening year for Phase 1 is 2024, while the Future Phases of the Specific Plan were modeled as opening no sooner than 2025. The Phase 1 SCAQMD Tier 4 threshold was interpolated by using the 4.8 MTCO₂e/SP/year threshold for Year 2020 and the 3.0 MTCO₂e/SP/year threshold for year 2035 for projects, while the Future Phases and total Specific Plan (Phases 1 and Future Phases combined) emissions were interpolated by using the 6.6 MTCO₂e/SP/year threshold for Year 2020 and the 4.1 MTCO₂e/SP/year threshold for Year 2035 for plans. Therefore, the Phase 1 Year 2024 interpolated threshold is 4.32 MTCO₂e/SP/year and the Year 2025 threshold for the Future Phases and total Specific Plan (Phases 1 and Future Phases combined) is 5.75 MTCO₂e/SP/year.

¹⁰ The service population for the multi-family residential uses was obtained from the default population provided in CalEEMod, while the employee service population for the proposed commercial land uses was estimated as one employee per every 511 square feet per Appendix D Buildout Methodology (October 2, 2014) for the County of LA Final EIR for the General Plan Update. Therefore, Phase 1 service population is a total of 179 residents/employees (includes 169 residents and 10 employees), the Future Phases service population is 717 residents/employees (includes 315 residents and 402 employees), with the total Specific Plan (Phases 1 and Future Phases combined) service population being 896 residents/employees (includes 484 residents and 412 employees).

Table 14: Unmitigated Project-Related Greenhouse Gas Emissions – Cont.

Future Phases						
Area Sources ²	4.25	8.84	13.09	0.01	0.00	13.51
Energy Usage ³	0.00	137.42	137.42	0.01	0.00	138.15
Mobile Sources ⁴	0.00	1,122.66	1,122.66	0.08	0.05	1,139.93
Solid Waste ⁵	11.02	0.00	11.02	0.65	0.00	27.31
Water ⁶	1.63	18.16	19.79	0.17	0.00	25.25
Construction ⁷	0.00	6.52	6.52	0.00	0.00	9.11
Total Emissions	16.90	1,293.60	1,310.50	0.93	0.06	1,353.26
SCAQMD Draft Screening Threshold						3,000
Exceeds Threshold?						No
Total Emissions⁸						7.48
Interpolated Year 2025 Service Population Threshold for Plans⁹						5.75
Exceeds Threshold?						Yes

Total Emissions from Specific Plan (Phase 1 & Future Phases combined)	2,042.03
SCAQMD Draft Screening Threshold	3,000
Exceeds Threshold?	No
Total Emissions from Specific Plan (Phase 1 & Future Phases combined)^{8,9}	5.67
Interpolated Year 2025 Service Population Threshold for Plans⁹	5.75
Exceeds Threshold?	No

Notes:

¹ Source: CalEEMod Version 2020.4.0

² Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.

³ Energy usage consist of GHG emissions from electricity and natural gas usage.

⁴ Mobile sources consist of GHG emissions from vehicles.

⁵ Solid waste includes the CO₂ and CH₄ emissions created from the solid waste placed in landfills.

⁶ Water includes GHG emissions from electricity used for transport of water and processing of wastewater.

⁷ Construction GHG emissions based on a 30 year amortization rate.

⁸ The service population for the proposed multi-family residential uses was obtained from the default population provided in CalEEMod, while the employee service population for the proposed commercial land uses was estimated as one employee per every 511 square feet per Appendix D Buildout Methodology (October 2, 2014) for the County of LA Final EIR for the General Plan Update. Therefore, the Phase 1 service population is a total of 179 residents/employees (includes 169 residents and 10 employees), the Future Phases service population is 717 residents/employees (includes 315 residents and 402 employees), with the total Specific Plan (Phase 1 & Future Phases combined) service population being 896 residents/employees (includes 484 residents and 412 employees).

⁹ Interpolated thresholds using 2020 and 2035 Tier 4 SCAQMD Service Population thresholds. The Phase 1 opening year is 2024, while the Future Phase was modeled as opening no sooner than 2025. The Tier 4 thresholds for projects was used for Phase 1, while the Future Phases and combined total Specific Plan emissions were compared to the Tier 4 thresholds for plans.

7.3 Greenhouse Gas Plan Consistency

The proposed Specific Plan would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The City of Artesia does not currently have a Climate Action Plan; therefore, the Specific Plan has been compared to the goals of the CARB Scoping Plan.

CARB Scoping Plan Consistency

The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (California Air Resources Board 2008). The measures in the Scoping Plan have been in place since 2012.

This Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person by 2020.

In May 2014, CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California's leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

In November 2017, CARB release the 2017 Scoping Plan. This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals, and includes a description of a suite of specific actions to meet the State's 2030 GHG limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State's mid and long-term climate goals.

Guided by legislative direction, the actions identified in the 2017 Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and Trade Program, which constrains and reduces emissions at covered sources.

As the latest, 2017 Scoping Plan builds upon previous versions, proposed Specific Plan consistency with applicable strategies of both the 2008 and 2017 Plan are assessed in Table 15. As shown in Table 15, the

proposed Specific Plan is consistent with the applicable strategies and would result in a less than significant impact.

Table 15: Project Consistency with CARB Scoping Plan Policies and Measures¹

2008 Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The Specific Plan (will be compliant with the current Title 24 standards.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California’s new and existing inventory of buildings.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The Specific Plan (will be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	Consistent. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the Specific Plan that are required to comply with the measures will comply with the strategy.

Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The state is currently developing a regulation to reduce methane emissions from municipal solid waste landfills. The Specific Plan will be required to comply with City programs, such as any City recycling and waste reduction programs, which comply, with the 75 percent reduction required by 2020 per AB 341.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The Specific Plan (will comply with all applicable City ordinances and CAL Green requirements.
2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	Project Compliance with Recommended Action
Implement Mobile Source Strategy: Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Car regulations.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025 and at least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.	Consistent. These are CARB enforced standards; vehicles that access the Specific Plan that are required to comply with the standards will comply with the strategy.
Implement SB 350 by 2030: Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide	Consistent. The Specific Plan will be compliant with the current Title 24 standards.

energy efficiency savings in electricity and natural gas end uses by 2030.	
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	Consistent. The Specific Plan will be required to comply with City programs, such as any City recycling and waste reduction programs, which comply, with the 75 percent reduction required by 2020 per AB 341.
Notes: ¹ Source: CARB Scoping Plan (2008 and 2017)	

Therefore, the proposed Specific Plan would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Furthermore, the proposed Specific Plan will also comply with applicable Green Building Standards and City of Artesia's policies regarding sustainability (as dictated by the City's General Plan). Impacts are considered to be less than significant, further analysis is not warranted.

8.0 References

The following references were used in the preparing this analysis.

California Air Resources Board

- 2008 Resolution 08-43
- 2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act
- 2008 Climate Change Scoping Plan, a framework for change.
- 2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document
- 2013 Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities
- 2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May.
- 2017 The 2017 Climate Change Scoping Plan, The Strategy for Achieving California's 2030 Greenhouse Gas Target, Draft. October 27, 2017.
- 2021 Historical Air Quality, Top 4 Summary

City of Artesia

- 2010 City of Artesia General Plan 2030

Governor's Office of Planning and Research

- 2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review
- 2009 CEQA Guideline Sections to be Added or Amended

TJW Engineering, Inc.

- 2021 Scoping Agreement for Traffic Impact Analysis Mixed-Use Artesia Project on Arkansas Street, City of Artesia, CA. August 11.

Office of Environmental Health Hazard Assessment

- 2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

South Coast Air Quality Management District

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- | | |
|------|---|
| 1993 | CEQA Air Quality Handbook |
| 2005 | Rule 403 Fugitive Dust |
| 2007 | 2007 Air Quality Management Plan |
| 2008 | Final Localized Significance Threshold Methodology, Revised |
| 2011 | Appendix A Calculation Details for CalEEMod |
| 2012 | Final 2012 Air Quality Management Plan |
| 2016 | Final 2016 Air Quality Management Plan |

Appendix A:

CalEEMod Daily Emission Output

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Artesia Residential Development - PROJECT

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.66	Acre	0.66	28,749.60	0
Other Non-Asphalt Surfaces	0.32	Acre	0.32	13,939.20	0
Apartments Mid Rise	59.00	Dwelling Unit	1.55	59,000.00	169
Regional Shopping Center	5.29	1000sqft	0.12	5,290.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.65 ac w/ 59 DU & 5.29 TSF commercial, ~25% site (~0.66 ac) paving of on-site driveways/street parking spcs, & remainder (~0.32 ac) landscaping/hardscape etc.

Construction Phase - Construction anticipated to begin late 2022 & last until late 2024. Therefore, construction assumed to begin early October 2022 and last until early October 2024 (~24 months).

Trips and VMT - ~2.25 ac (98,213 sf) site prep to remove existing asphalt surfaces. $98,213 \times 0.3 \text{ in} = 29,464 \text{ cfx} \times 45 \text{ lbs} = 1,325,876 \text{ lbs} \approx 601 \text{ tons}$. Assumed ~30 haul trucks during site prep.

Demolition - ~8,727 sf existing bldgs to be demolished.

Grading - ~436 CY import during grading. Site prep of ~2.25 ac of site to remove existing asphalt surfaces.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50g/L VOC for buildings & 100g/L VOC for parking lot striping.

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Trips - Per trip gen, 5.44 trips/DU for MF & 37.75 trips/TSF for commercial uses.

Woodstoves - SCAQMD Rule 445 prohibits installation of wood burning devices in new developments.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Mobile Land Use Mitigation - Site is ~0.06 miles NW of Metro Rte 62 stop Pioneer/168th & ~0.88 miles N of downtown portion of Artesia. Sidewalks provided on/off-site. 59DU/2.65 ac=22du/ac. LUT-3- mixeduse res/comm.

Area Mitigation -

Energy Mitigation - Energy efficient appliances.

Water Mitigation - Per CalGreen Stanards, 20% indoor water reduction. Water-efficient irrigation systems.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	220.00	428.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	NumberGas	50.15	53.10
tblFireplaces	NumberWood	2.95	0.00
tblGrading	AcresOfGrading	7.50	2.25
tblGrading	MaterialImported	0.00	436.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblVehicleTrips	ST_TR	4.91	5.44
tblVehicleTrips	ST_TR	46.12	37.75
tblVehicleTrips	SU_TR	4.09	5.44
tblVehicleTrips	SU_TR	21.10	37.75
tblWoodstoves	NumberCatalytic	2.95	0.00

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	:	NumberNoncatalytic	:	2.95	:	0.00
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2.0 Emissions Summary

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.0976	17.7311	17.0320	0.0341	7.2696	0.8402	8.0180	3.4750	0.7850	4.1637	0.0000	3,228.806 3	3,228.806 3	0.7921	0.0668	3,257.806 6
2023	1.9283	14.2997	16.6694	0.0338	0.7827	0.6205	1.4032	0.2096	0.5945	0.8041	0.0000	3,197.738 7	3,197.738 7	0.4580	0.0546	3,225.466 4
2024	19.5293	13.4855	16.3952	0.0336	0.7827	0.5448	1.3275	0.2096	0.5216	0.7312	0.0000	3,180.716 7	3,180.716 7	0.5454	0.0531	3,207.778 3
Maximum	19.5293	17.7311	17.0320	0.0341	7.2696	0.8402	8.0180	3.4750	0.7850	4.1637	0.0000	3,228.806 3	3,228.806 3	0.7921	0.0668	3,257.806 6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.0976	17.7311	17.0320	0.0341	2.9493	0.8402	3.6976	1.3859	0.7850	2.0746	0.0000	3,228.806 3	3,228.806 3	0.7921	0.0668	3,257.806 6
2023	1.9283	14.2997	16.6694	0.0338	0.7827	0.6205	1.4032	0.2096	0.5945	0.8041	0.0000	3,197.738 7	3,197.738 7	0.4580	0.0546	3,225.466 4
2024	19.5293	13.4855	16.3952	0.0336	0.7827	0.5448	1.3275	0.2096	0.5216	0.7312	0.0000	3,180.716 7	3,180.716 7	0.5454	0.0531	3,207.778 3
Maximum	19.5293	17.7311	17.0320	0.0341	2.9493	0.8402	3.6976	1.3859	0.7850	2.0746	0.0000	3,228.806 3	3,228.806 3	0.7921	0.0668	3,257.806 6

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	48.90	0.00	40.19	53.65	0.00	36.66	0.00	0.00	0.00	0.00	0.00	0.00

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290
Energy	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587
Mobile	1.4531	1.4154	14.1591	0.0309	3.2184	0.0222	3.2406	0.8573	0.0206	0.8779		3,203.7077	3,203.7077	0.2114	0.1294	3,247.5655
Total	3.1314	2.5493	19.4848	0.0380	3.2184	0.1363	3.3547	0.8573	0.1347	0.9920	0.0000	4,588.2099	4,588.2099	0.2462	0.1547	4,640.4533

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290
Energy	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587
Mobile	1.0696	0.8310	7.8928	0.0149	1.5141	0.0115	1.5256	0.4033	0.0107	0.4140		1,546.8914	1,546.8914	0.1285	0.0761	1,572.7699
Total	2.7480	1.9648	13.2186	0.0221	1.5141	0.1256	1.6397	0.4033	0.1248	0.5281	0.0000	2,931.3936	2,931.3936	0.1632	0.1013	2,965.6577

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	12.25	22.93	32.16	41.99	52.96	7.84	51.12	52.96	7.36	46.77	0.00	36.11	36.11	33.68	34.51	36.09

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2022	11/22/2022	5	37	
2	Site Preparation	Site Preparation	11/23/2022	11/29/2022	5	5	
3	Grading	Grading	11/30/2022	12/13/2022	5	10	
4	Building Construction	Building Construction	12/14/2022	8/2/2024	5	428	
5	Paving	Paving	8/3/2024	9/2/2024	5	21	
6	Architectural Coating	Architectural Coating	9/3/2024	10/1/2024	5	21	

Acres of Grading (Site Preparation Phase): 2.25**Acres of Grading (Grading Phase): 10****Acres of Paving: 0.98****Residential Indoor: 119,475; Residential Outdoor: 39,825; Non-Residential Indoor: 7,935; Non-Residential Outdoor: 2,645; Striped Parking Area: 2,561 (Architectural Coating – sqft)****OffRoad Equipment**

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

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	40.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	30.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	43.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	62.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2322	0.0000	0.2322	0.0352	0.0000	0.0352			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	1.6889	16.6217	13.9605	0.0241	0.2322	0.8379	1.0701	0.0352	0.7829	0.8180		2,323.4168	2,323.4168	0.5921		2,338.2191

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0400e-003	0.1816	0.0423	6.7000e-004	0.0189	1.3500e-003	0.0203	5.1900e-003	1.2900e-003	6.4800e-003		73.5974	73.5974	3.9100e-003	0.0117	77.1749
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
Worker	0.0450	0.0329	0.5124	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		135.2165	135.2165	3.6600e-003	3.2500e-003	136.2774
Total	0.0500	0.2144	0.5547	2.0000e-003	0.1642	2.2800e-003	0.1665	0.0437	2.1500e-003	0.0459		208.8139	208.8139	7.5700e-003	0.0149	213.4523

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0906	0.0000	0.0906	0.0137	0.0000	0.0137			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	1.6889	16.6217	13.9605	0.0241	0.0906	0.8379	0.9285	0.0137	0.7829	0.7966	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0400e-003	0.1816	0.0423	6.7000e-004	0.0189	1.3500e-003	0.0203	5.1900e-003	1.2900e-003	6.4800e-003		73.5974	73.5974	3.9100e-003	0.0117	77.1749
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
Worker	0.0450	0.0329	0.5124	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		135.2165	135.2165	3.6600e-003	3.2500e-003	136.2774
Total	0.0500	0.2144	0.5547	2.0000e-003	0.1642	2.2800e-003	0.1665	0.0437	2.1500e-003	0.0459		208.8139	208.8139	7.5700e-003	0.0149	213.4523

3.3 Site Preparation - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	0.4772	0.5952	1.0724	0.0515	0.5476	0.5991		2,375.1569	2,375.1569	0.7682		2,394.3613

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0280	1.0077	0.2350	3.7300e-003	0.1050	7.4900e-003	0.1125	0.0288	7.1600e-003	0.0360		408.4654	408.4654	0.0217	0.0648	428.3206
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
Worker	0.0277	0.0202	0.3153	8.2000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		83.2102	83.2102	2.2500e-003	2.0000e-003	83.8630
Total	0.0556	1.0279	0.5503	4.5500e-003	0.1944	8.0600e-003	0.2025	0.0525	7.6900e-003	0.0602		491.6755	491.6755	0.0240	0.0668	512.1836

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1861	0.0000	0.1861	0.0201	0.0000	0.0201			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	0.1861	0.5952	0.7813	0.0201	0.5476	0.5677	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0280	1.0077	0.2350	3.7300e-003	0.1050	7.4900e-003	0.1125	0.0288	7.1600e-003	0.0360		408.4654	408.4654	0.0217	0.0648	428.3206
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
Worker	0.0277	0.0202	0.3153	8.2000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		83.2102	83.2102	2.2500e-003	2.0000e-003	83.8630
Total	0.0556	1.0279	0.5503	4.5500e-003	0.1944	8.0600e-003	0.2025	0.0525	7.6900e-003	0.0602		491.6755	491.6755	0.0240	0.0668	512.1836

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	7.0826	0.7423	7.8249	3.4247	0.6829	4.1076		1,995.4825	1,995.4825	0.6454		2,011.6169

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.7222	0.1684	2.6700e-003	0.0753	5.3700e-003	0.0806	0.0206	5.1300e-003	0.0258		292.7335	292.7335	0.0156	0.0465	306.9631
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
Worker	0.0346	0.0253	0.3941	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		104.0127	104.0127	2.8200e-003	2.5000e-003	104.8288
Total	0.0546	0.7475	0.5625	3.6900e-003	0.1871	6.0900e-003	0.1931	0.0503	5.7900e-003	0.0561		396.7462	396.7462	0.0184	0.0490	411.7919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	2.7622	0.7423	3.5045	1.3357	0.6829	2.0186	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.7222	0.1684	2.6700e-003	0.0753	5.3700e-003	0.0806	0.0206	5.1300e-003	0.0258		292.7335	292.7335	0.0156	0.0465	306.9631
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
Worker	0.0346	0.0253	0.3941	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		104.0127	104.0127	2.8200e-003	2.5000e-003	104.8288
Total	0.0546	0.7475	0.5625	3.6900e-003	0.1871	6.0900e-003	0.1931	0.0503	5.7900e-003	0.0561		396.7462	396.7462	0.0184	0.0490	411.7919

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0276	0.6858	0.2351	2.7400e-003	0.0897	6.5300e-003	0.0962	0.0258	6.2500e-003	0.0321		294.6462	294.6462	9.8500e-003	0.0425	307.5452
Worker	0.2146	0.1567	2.4436	6.3400e-003	0.6930	4.4400e-003	0.6975	0.1838	4.0900e-003	0.1879		644.8788	644.8788	0.0175	0.0155	649.9384
Total	0.2421	0.8424	2.6788	9.0800e-003	0.7827	0.0110	0.7937	0.2096	0.0103	0.2200		939.5250	939.5250	0.0273	0.0580	957.4836

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0276	0.6858	0.2351	2.7400e-003	0.0897	6.5300e-003	0.0962	0.0258	6.2500e-003	0.0321		294.6462	294.6462	9.8500e-003	0.0425	307.5452
Worker	0.2146	0.1567	2.4436	6.3400e-003	0.6930	4.4400e-003	0.6975	0.1838	4.0900e-003	0.1879		644.8788	644.8788	0.0175	0.0155	649.9384
Total	0.2421	0.8424	2.6788	9.0800e-003	0.7827	0.0110	0.7937	0.2096	0.0103	0.2200		939.5250	939.5250	0.0273	0.0580	957.4836

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0161	0.5374	0.2082	2.6100e-003	0.0897	2.7000e-003	0.0924	0.0258	2.5800e-003	0.0284		280.3955	280.3955	9.4000e-003	0.0403	292.6436
Worker	0.1985	0.1384	2.2467	6.1300e-003	0.6930	4.1800e-003	0.6972	0.1838	3.8500e-003	0.1876		627.8199	627.8199	0.0156	0.0143	632.4749
Total	0.2147	0.6758	2.4549	8.7400e-003	0.7827	6.8800e-003	0.7896	0.2096	6.4300e-003	0.2160		908.2154	908.2154	0.0250	0.0546	925.1185

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0161	0.5374	0.2082	2.6100e-003	0.0897	2.7000e-003	0.0924	0.0258	2.5800e-003	0.0284		280.3955	280.3955	9.4000e-003	0.0403	292.6436
Worker	0.1985	0.1384	2.2467	6.1300e-003	0.6930	4.1800e-003	0.6972	0.1838	3.8500e-003	0.1876		627.8199	627.8199	0.0156	0.0143	632.4749
Total	0.2147	0.6758	2.4549	8.7400e-003	0.7827	6.8800e-003	0.7896	0.2096	6.4300e-003	0.2160		908.2154	908.2154	0.0250	0.0546	925.1185

3.5 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.6541	2,289.6541	0.4265		2,300.3154
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.6541	2,289.6541	0.4265		2,300.3154

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0156	0.5385	0.2038	2.5600e-003	0.0897	2.7200e-003	0.0924	0.0258	2.6000e-003	0.0284		276.1845	276.1845	9.4300e-003	0.0398	288.2656
Worker	0.1851	0.1236	2.0913	5.9600e-003	0.6930	4.0100e-003	0.6970	0.1838	3.6900e-003	0.1875		614.8782	614.8782	0.0142	0.0133	619.1973
Total	0.2007	0.6621	2.2950	8.5200e-003	0.7827	6.7300e-003	0.7894	0.2096	6.2900e-003	0.2159		891.0626	891.0626	0.0236	0.0531	907.4629

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.6541	2,289.6541	0.4265		2,300.3154
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.6541	2,289.6541	0.4265		2,300.3154

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0156	0.5385	0.2038	2.5600e-003	0.0897	2.7200e-003	0.0924	0.0258	2.6000e-003	0.0284		276.1845	276.1845	9.4300e-003	0.0398	288.2656
Worker	0.1851	0.1236	2.0913	5.9600e-003	0.6930	4.0100e-003	0.6970	0.1838	3.6900e-003	0.1875		614.8782	614.8782	0.0142	0.0133	619.1973
Total	0.2007	0.6621	2.2950	8.5200e-003	0.7827	6.7300e-003	0.7894	0.2096	6.2900e-003	0.2159		891.0626	891.0626	0.0236	0.0531	907.4629

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8425	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652		1,710.2024	1,710.2024	0.5420		1,723.7529
Paving	0.0823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9248	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652		1,710.2024	1,710.2024	0.5420		1,723.7529

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0448	0.0299	0.5060	1.4400e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		148.7609	148.7609	3.4200e-003	3.2200e-003	149.8058
Total	0.0448	0.0299	0.5060	1.4400e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		148.7609	148.7609	3.4200e-003	3.2200e-003	149.8058

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8425	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652	0.0000	1,710.2024	1,710.2024	0.5420		1,723.7529
Paving	0.0823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9248	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652	0.0000	1,710.2024	1,710.2024	0.5420		1,723.7529

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0448	0.0299	0.5060	1.4400e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		148.7609	148.7609	3.4200e-003	3.2200e-003	149.8058
Total	0.0448	0.0299	0.5060	1.4400e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		148.7609	148.7609	3.4200e-003	3.2200e-003	149.8058

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.3127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	19.4935	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0358	0.0239	0.4048	1.1500e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		119.0087	119.0087	2.7400e-003	2.5800e-003	119.8446
Total	0.0358	0.0239	0.4048	1.1500e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		119.0087	119.0087	2.7400e-003	2.5800e-003	119.8446

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.3127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	19.4935	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0358	0.0239	0.4048	1.1500e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		119.0087	119.0087	2.7400e-003	2.5800e-003	119.8446
Total	0.0358	0.0239	0.4048	1.1500e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		119.0087	119.0087	2.7400e-003	2.5800e-003	119.8446

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	1.0696	0.8310	7.8928	0.0149	1.5141	0.0115	1.5256	0.4033	0.0107	0.4140		1,546.891 4	1,546.891 4	0.1285	0.0761	1,572.769 9
Unmitigated	1.4531	1.4154	14.1591	0.0309	3.2184	0.0222	3.2406	0.8573	0.0206	0.8779		3,203.707 7	3,203.707 7	0.2114	0.1294	3,247.565 5

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	320.96	320.96	320.96	1,096,769	515,969
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	199.70	199.70	199.70	431,915	203,192
Total	520.66	520.66	520.66	1,528,684	719,161

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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Non-Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Regional Shopping Center	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587
NaturalGas Unmitigated	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2112.13	0.0228	0.1947	0.0828	1.2400e-003		0.0157	0.0157		0.0157	0.0157		248.4863	248.4863	4.7600e-003	4.5600e-003	249.9630
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	23.6238	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.7793	2.7793	5.0000e-005	5.0000e-005	2.7958
Total		0.0230	0.1970	0.0848	1.2500e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8100e-003	4.6100e-003	252.7587

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.11213	0.0228	0.1947	0.0828	1.2400e-003		0.0157	0.0157		0.0157	0.0157		248.4863	248.4863	4.7600e-003	4.5600e-003	249.9630
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0236238	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.7793	2.7793	5.0000e-005	5.0000e-005	2.7958
Total		0.0230	0.1970	0.0848	1.2500e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8100e-003	4.6100e-003	252.7587

6.0 Area Detail**6.1 Mitigation Measures Area**

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290
Unmitigated	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1031	0.8808	0.3748	5.6200e-003		0.0712	0.0712		0.0712	0.0712	0.0000	1,124.4706	1,124.4706	0.0216	0.0206	1,131.1528
Landscaping	0.1464	0.0561	4.8662	2.6000e-004		0.0270	0.0270		0.0270	0.0270		8.7660	8.7660	8.4100e-003		8.9763
Total	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1031	0.8808	0.3748	5.6200e-003		0.0712	0.0712		0.0712	0.0712	0.0000	1,124.4706	1,124.4706	0.0216	0.0206	1,131.1528
Landscaping	0.1464	0.0561	4.8662	2.6000e-004		0.0270	0.0270		0.0270	0.0270		8.7660	8.7660	8.4100e-003		8.9763
Total	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Artesia Residential Development - PROJECT****Los Angeles-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.66	Acre	0.66	28,749.60	0
Other Non-Asphalt Surfaces	0.32	Acre	0.32	13,939.20	0
Apartments Mid Rise	59.00	Dwelling Unit	1.55	59,000.00	169
Regional Shopping Center	5.29	1000sqft	0.12	5,290.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.65 ac w/ 59 DU & 5.29 TSF commercial, ~25% site (~0.66 ac) paving of on-site driveways/street parking spcs, & remainder (~0.32 ac) landscaping/hardscape etc.

Construction Phase - Construction anticipated to begin late 2022 & last until late 2024. Therefore, construction assumed to begin early October 2022 and last until early October 2024 (~24 months).

Trips and VMT - ~2.25 ac (98,213 sf) site prep to remove existing asphalt surfaces. 98,213x0.3in=29,464cfx45lbs=1,325,876lbs=~601tons. Assumed ~30 haul trucks during site prep.

Demolition - ~8,727 sf existing bldgs to be demolished.

Grading - ~436 CY import during grading. Site prep of ~2.25 ac of site to remove existing asphalt surfaces.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50g/L VOC for buildings & 100g/L VOC for parking lot striping.

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Trips - Per trip gen, 5.44 trips/DU for MF & 37.75 trips/TSF for commercial uses.

Woodstoves - SCAQMD Rule 445 prohibits installation of wood burning devices in new developments.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Mobile Land Use Mitigation - Site is ~0.06 miles NW of Metro Rte 62 stop Pioneer/168th & ~0.88 miles N of downtown portion of Artesia. Sidewalks provided on/off-site. 59DU/2.65 ac=22du/ac. LUT-3- mixeduse res/comm.

Area Mitigation -

Energy Mitigation - Energy efficient appliances.

Water Mitigation - Per CalGreen Stanards, 20% indoor water reduction. Water-efficient irrigation systems.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	220.00	428.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	NumberGas	50.15	53.10
tblFireplaces	NumberWood	2.95	0.00
tblGrading	AcresOfGrading	7.50	2.25
tblGrading	MaterialImported	0.00	436.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblVehicleTrips	ST_TR	4.91	5.44
tblVehicleTrips	ST_TR	46.12	37.75
tblVehicleTrips	SU_TR	4.09	5.44
tblVehicleTrips	SU_TR	21.10	37.75
tblWoodstoves	NumberCatalytic	2.95	0.00

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	:	NumberNoncatalytic	:	2.95	:	0.00
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2.0 Emissions Summary

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.1124	17.7630	16.8401	0.0338	7.2696	0.8402	8.0180	3.4750	0.7850	4.1637	0.0000	3,194.820 8	3,194.820 8	0.7921	0.0670	3,224.158 7
2023	1.9425	14.3395	16.4943	0.0335	0.7827	0.6205	1.4032	0.2096	0.5945	0.8041	0.0000	3,165.112 3	3,165.112 3	0.4582	0.0557	3,193.167 0
2024	19.5321	13.5237	16.2343	0.0333	0.7827	0.5448	1.3275	0.2096	0.5216	0.7312	0.0000	3,148.828 9	3,148.828 9	0.5455	0.0541	3,176.194 6
Maximum	19.5321	17.7630	16.8401	0.0338	7.2696	0.8402	8.0180	3.4750	0.7850	4.1637	0.0000	3,194.820 8	3,194.820 8	0.7921	0.0670	3,224.158 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.1124	17.7630	16.8401	0.0338	2.9493	0.8402	3.6976	1.3859	0.7850	2.0746	0.0000	3,194.820 8	3,194.820 8	0.7921	0.0670	3,224.158 7
2023	1.9425	14.3395	16.4943	0.0335	0.7827	0.6205	1.4032	0.2096	0.5945	0.8041	0.0000	3,165.112 3	3,165.112 3	0.4582	0.0557	3,193.167 0
2024	19.5321	13.5237	16.2343	0.0333	0.7827	0.5448	1.3275	0.2096	0.5216	0.7312	0.0000	3,148.828 9	3,148.828 9	0.5455	0.0541	3,176.194 6
Maximum	19.5321	17.7630	16.8401	0.0338	2.9493	0.8402	3.6976	1.3859	0.7850	2.0746	0.0000	3,194.820 8	3,194.820 8	0.7921	0.0670	3,224.158 7

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	48.90	0.00	40.19	53.65	0.00	36.66	0.00	0.00	0.00	0.00	0.00	0.00

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290
Energy	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587
Mobile	1.4247	1.5285	13.9111	0.0296	3.2184	0.0222	3.2406	0.8573	0.0206	0.8779		3,068.1145	3,068.1145	0.2180	0.1352	3,113.8561
Total	3.1030	2.6624	19.2368	0.0367	3.2184	0.1363	3.3547	0.8573	0.1347	0.9920	0.0000	4,452.6167	4,452.6167	0.2528	0.1604	4,506.7439

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290
Energy	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587
Mobile	1.0377	0.8977	8.0149	0.0143	1.5141	0.0115	1.5256	0.4033	0.0107	0.4140		1,483.6988	1,483.6988	0.1355	0.0797	1,510.8407
Total	2.7161	2.0316	13.3407	0.0215	1.5141	0.1256	1.6397	0.4033	0.1248	0.5281	0.0000	2,868.2009	2,868.2009	0.1703	0.1049	2,903.7285

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	12.47	23.69	30.65	41.58	52.96	7.84	51.12	52.96	7.36	46.76	0.00	35.58	35.58	32.64	34.59	35.57

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2022	11/22/2022	5	37	
2	Site Preparation	Site Preparation	11/23/2022	11/29/2022	5	5	
3	Grading	Grading	11/30/2022	12/13/2022	5	10	
4	Building Construction	Building Construction	12/14/2022	8/2/2024	5	428	
5	Paving	Paving	8/3/2024	9/2/2024	5	21	
6	Architectural Coating	Architectural Coating	9/3/2024	10/1/2024	5	21	

Acres of Grading (Site Preparation Phase): 2.25**Acres of Grading (Grading Phase): 10****Acres of Paving: 0.98****Residential Indoor: 119,475; Residential Outdoor: 39,825; Non-Residential Indoor: 7,935; Non-Residential Outdoor: 2,645; Striped Parking Area: 2,561 (Architectural Coating – sqft)****OffRoad Equipment**

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

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	40.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	30.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	43.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	62.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2322	0.0000	0.2322	0.0352	0.0000	0.0352			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	1.6889	16.6217	13.9605	0.0241	0.2322	0.8379	1.0701	0.0352	0.7829	0.8180		2,323.4168	2,323.4168	0.5921		2,338.2191

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9200e-003	0.1889	0.0431	6.7000e-004	0.0189	1.3500e-003	0.0203	5.1900e-003	1.2900e-003	6.4800e-003		73.6189	73.6189	3.9000e-003	0.0117	77.1974
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
Worker	0.0482	0.0363	0.4704	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		128.0673	128.0673	3.7000e-003	3.4800e-003	129.1958
Total	0.0531	0.2252	0.5135	1.9300e-003	0.1642	2.2800e-003	0.1665	0.0437	2.1500e-003	0.0459		201.6863	201.6863	7.6000e-003	0.0152	206.3932

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0906	0.0000	0.0906	0.0137	0.0000	0.0137			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	1.6889	16.6217	13.9605	0.0241	0.0906	0.8379	0.9285	0.0137	0.7829	0.7966	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9200e-003	0.1889	0.0431	6.7000e-004	0.0189	1.3500e-003	0.0203	5.1900e-003	1.2900e-003	6.4800e-003		73.6189	73.6189	3.9000e-003	0.0117	77.1974
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
Worker	0.0482	0.0363	0.4704	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		128.0673	128.0673	3.7000e-003	3.4800e-003	129.1958
Total	0.0531	0.2252	0.5135	1.9300e-003	0.1642	2.2800e-003	0.1665	0.0437	2.1500e-003	0.0459		201.6863	201.6863	7.6000e-003	0.0152	206.3932

3.3 Site Preparation - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	0.4772	0.5952	1.0724	0.0515	0.5476	0.5991		2,375.1569	2,375.1569	0.7682		2,394.3613

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0273	1.0486	0.2391	3.7300e-003	0.1050	7.5000e-003	0.1125	0.0288	7.1800e-003	0.0360		408.5851	408.5851	0.0217	0.0648	428.4458
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
Worker	0.0296	0.0223	0.2895	7.7000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		78.8107	78.8107	2.2800e-003	2.1400e-003	79.5051
Total	0.0569	1.0709	0.5286	4.5000e-003	0.1944	8.0700e-003	0.2025	0.0525	7.7100e-003	0.0602		487.3958	487.3958	0.0239	0.0670	507.9508

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1861	0.0000	0.1861	0.0201	0.0000	0.0201			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	0.1861	0.5952	0.7813	0.0201	0.5476	0.5677	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0273	1.0486	0.2391	3.7300e-003	0.1050	7.5000e-003	0.1125	0.0288	7.1800e-003	0.0360		408.5851	408.5851	0.0217	0.0648	428.4458
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
Worker	0.0296	0.0223	0.2895	7.7000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		78.8107	78.8107	2.2800e-003	2.1400e-003	79.5051
Total	0.0569	1.0709	0.5286	4.5000e-003	0.1944	8.0700e-003	0.2025	0.0525	7.7100e-003	0.0602		487.3958	487.3958	0.0239	0.0670	507.9508

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	7.0826	0.7423	7.8249	3.4247	0.6829	4.1076		1,995.4825	1,995.4825	0.6454		2,011.6169

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0196	0.7515	0.1714	2.6700e-003	0.0753	5.3800e-003	0.0806	0.0206	5.1400e-003	0.0258		292.8193	292.8193	0.0155	0.0465	307.0528
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
Worker	0.0371	0.0279	0.3619	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		98.5133	98.5133	2.8500e-003	2.6700e-003	99.3813
Total	0.0566	0.7794	0.5332	3.6400e-003	0.1871	6.1000e-003	0.1931	0.0503	5.8000e-003	0.0561		391.3326	391.3326	0.0184	0.0491	406.4341

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	2.7622	0.7423	3.5045	1.3357	0.6829	2.0186	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0196	0.7515	0.1714	2.6700e-003	0.0753	5.3800e-003	0.0806	0.0206	5.1400e-003	0.0258		292.8193	292.8193	0.0155	0.0465	307.0528
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
Worker	0.0371	0.0279	0.3619	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		98.5133	98.5133	2.8500e-003	2.6700e-003	99.3813
Total	0.0566	0.7794	0.5332	3.6400e-003	0.1871	6.1000e-003	0.1931	0.0503	5.8000e-003	0.0561		391.3326	391.3326	0.0184	0.0491	406.4341

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0272	0.7141	0.2433	2.7400e-003	0.0897	6.5600e-003	0.0962	0.0258	6.2700e-003	0.0321		294.7569	294.7569	9.8200e-003	0.0425	307.6714
Worker	0.2297	0.1731	2.2436	6.0000e-003	0.6930	4.4400e-003	0.6975	0.1838	4.0900e-003	0.1879		610.7826	610.7826	0.0177	0.0166	616.1643
Total	0.2569	0.8872	2.4869	8.7400e-003	0.7827	0.0110	0.7937	0.2096	0.0104	0.2200		905.5395	905.5395	0.0275	0.0591	923.8358

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0272	0.7141	0.2433	2.7400e-003	0.0897	6.5600e-003	0.0962	0.0258	6.2700e-003	0.0321		294.7569	294.7569	9.8200e-003	0.0425	307.6714
Worker	0.2297	0.1731	2.2436	6.0000e-003	0.6930	4.4400e-003	0.6975	0.1838	4.0900e-003	0.1879		610.7826	610.7826	0.0177	0.0166	616.1643
Total	0.2569	0.8872	2.4869	8.7400e-003	0.7827	0.0110	0.7937	0.2096	0.0104	0.2200		905.5395	905.5395	0.0275	0.0591	923.8358

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0156	0.5626	0.2147	2.6100e-003	0.0897	2.7200e-003	0.0924	0.0258	2.6000e-003	0.0284		280.8684	280.8684	9.3500e-003	0.0404	293.1475
Worker	0.2133	0.1529	2.0651	5.8100e-003	0.6930	4.1800e-003	0.6972	0.1838	3.8500e-003	0.1876		594.7206	594.7206	0.0159	0.0153	599.6715
Total	0.2289	0.7155	2.2798	8.4200e-003	0.7827	6.9000e-003	0.7896	0.2096	6.4500e-003	0.2161		875.5890	875.5890	0.0252	0.0557	892.8191

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0156	0.5626	0.2147	2.6100e-003	0.0897	2.7200e-003	0.0924	0.0258	2.6000e-003	0.0284		280.8684	280.8684	9.3500e-003	0.0404	293.1475
Worker	0.2133	0.1529	2.0651	5.8100e-003	0.6930	4.1800e-003	0.6972	0.1838	3.8500e-003	0.1876		594.7206	594.7206	0.0159	0.0153	599.6715
Total	0.2289	0.7155	2.2798	8.4200e-003	0.7827	6.9000e-003	0.7896	0.2096	6.4500e-003	0.2161		875.5890	875.5890	0.0252	0.0557	892.8191

3.5 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.6541	2,289.6541	0.4265		2,300.3154
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.6541	2,289.6541	0.4265		2,300.3154

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0151	0.5638	0.2102	2.5700e-003	0.0897	2.7400e-003	0.0924	0.0258	2.6200e-003	0.0284		276.6601	276.6601	9.3900e-003	0.0399	288.7713
Worker	0.1995	0.1365	1.9239	5.6500e-003	0.6930	4.0100e-003	0.6970	0.1838	3.6900e-003	0.1875		582.5147	582.5147	0.0144	0.0142	587.1079
Total	0.2145	0.7003	2.1341	8.2200e-003	0.7827	6.7500e-003	0.7894	0.2096	6.3100e-003	0.2159		859.1748	859.1748	0.0238	0.0541	875.8792

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.6541	2,289.6541	0.4265		2,300.3154
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.6541	2,289.6541	0.4265		2,300.3154

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0151	0.5638	0.2102	2.5700e-003	0.0897	2.7400e-003	0.0924	0.0258	2.6200e-003	0.0284		276.6601	276.6601	9.3900e-003	0.0399	288.7713
Worker	0.1995	0.1365	1.9239	5.6500e-003	0.6930	4.0100e-003	0.6970	0.1838	3.6900e-003	0.1875		582.5147	582.5147	0.0144	0.0142	587.1079
Total	0.2145	0.7003	2.1341	8.2200e-003	0.7827	6.7500e-003	0.7894	0.2096	6.3100e-003	0.2159		859.1748	859.1748	0.0238	0.0541	875.8792

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8425	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652		1,710.2024	1,710.2024	0.5420		1,723.7529
Paving	0.0823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9248	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652		1,710.2024	1,710.2024	0.5420		1,723.7529

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0483	0.0330	0.4655	1.3700e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		140.9310	140.9310	3.4700e-003	3.4400e-003	142.0422
Total	0.0483	0.0330	0.4655	1.3700e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		140.9310	140.9310	3.4700e-003	3.4400e-003	142.0422

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8425	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652	0.0000	1,710.2024	1,710.2024	0.5420		1,723.7529
Paving	0.0823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9248	8.1030	11.7069	0.0179		0.3957	0.3957		0.3652	0.3652	0.0000	1,710.2024	1,710.2024	0.5420		1,723.7529

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0483	0.0330	0.4655	1.3700e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		140.9310	140.9310	3.4700e-003	3.4400e-003	142.0422
Total	0.0483	0.0330	0.4655	1.3700e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		140.9310	140.9310	3.4700e-003	3.4400e-003	142.0422

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.3127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	19.4935	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0386	0.0264	0.3724	1.0900e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		112.7448	112.7448	2.7800e-003	2.7500e-003	113.6338
Total	0.0386	0.0264	0.3724	1.0900e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		112.7448	112.7448	2.7800e-003	2.7500e-003	113.6338

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.3127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	19.4935	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0386	0.0264	0.3724	1.0900e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		112.7448	112.7448	2.7800e-003	2.7500e-003	113.6338
Total	0.0386	0.0264	0.3724	1.0900e-003	0.1341	7.8000e-004	0.1349	0.0356	7.1000e-004	0.0363		112.7448	112.7448	2.7800e-003	2.7500e-003	113.6338

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	1.0377	0.8977	8.0149	0.0143	1.5141	0.0115	1.5256	0.4033	0.0107	0.4140		1,483.698 8	1,483.698 8	0.1355	0.0797	1,510.840 7
Unmitigated	1.4247	1.5285	13.9111	0.0296	3.2184	0.0222	3.2406	0.8573	0.0206	0.8779		3,068.114 5	3,068.114 5	0.2180	0.1352	3,113.856 1

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	320.96	320.96	320.96	1,096,769	515,969
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	199.70	199.70	199.70	431,915	203,192
Total	520.66	520.66	520.66	1,528,684	719,161

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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Non-Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Regional Shopping Center	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587
NaturalGas Unmitigated	0.0230	0.1970	0.0848	1.2600e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8200e-003	4.6100e-003	252.7587

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2112.13	0.0228	0.1947	0.0828	1.2400e-003		0.0157	0.0157		0.0157	0.0157		248.4863	248.4863	4.7600e-003	4.5600e-003	249.9630
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	23.6238	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.7793	2.7793	5.0000e-005	5.0000e-005	2.7958
Total		0.0230	0.1970	0.0848	1.2500e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8100e-003	4.6100e-003	252.7587

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.11213	0.0228	0.1947	0.0828	1.2400e-003		0.0157	0.0157		0.0157	0.0157		248.4863	248.4863	4.7600e-003	4.5600e-003	249.9630
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0236238	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.7793	2.7793	5.0000e-005	5.0000e-005	2.7958
Total		0.0230	0.1970	0.0848	1.2500e-003		0.0159	0.0159		0.0159	0.0159		251.2656	251.2656	4.8100e-003	4.6100e-003	252.7587

6.0 Area Detail**6.1 Mitigation Measures Area**

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290
Unmitigated	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1031	0.8808	0.3748	5.6200e-003		0.0712	0.0712		0.0712	0.0712	0.0000	1,124.4706	1,124.4706	0.0216	0.0206	1,131.1528
Landscaping	0.1464	0.0561	4.8662	2.6000e-004		0.0270	0.0270		0.0270	0.0270		8.7660	8.7660	8.4100e-003		8.9763
Total	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1031	0.8808	0.3748	5.6200e-003		0.0712	0.0712		0.0712	0.0712	0.0000	1,124.4706	1,124.4706	0.0216	0.0206	1,131.1528
Landscaping	0.1464	0.0561	4.8662	2.6000e-004		0.0270	0.0270		0.0270	0.0270		8.7660	8.7660	8.4100e-003		8.9763
Total	1.6553	0.9369	5.2410	5.8800e-003		0.0982	0.0982		0.0982	0.0982	0.0000	1,133.2366	1,133.2366	0.0300	0.0206	1,140.1290

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Artesia Residential Development - REMAINDER SPECIFIC PLAN****Los Angeles-South Coast County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	40.00	Dwelling Unit	0.79	40,000.00	114
Regional Shopping Center	34.19	1000sqft	0.78	34,190.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - RMNDR SP AREA - 1.57 ac w/ up to 40 DU & 34.19 TSF commercial uses.

Construction Phase - Construction unknown at this time. Assumed no overlap with project (start date of Oct 2, 2024 - soonest start date, conservative).
CalEEMod default timing utilized other than architectural coating.

Trips and VMT - ~0.98 ac (42,689 sf) site prep to remove existing asphalt surfaces. $42,689 \times 0.3 \text{ in} = 12,807 \text{ cfx} 45 \text{ lbs} = 576,302 \text{ lbs} \approx 288 \text{ tons}$. Assumed ~14 haul trucks during site prep.

Demolition - Up to ~13,922 sf demo (all existing bldgs on remainder SP area, estimated through applicant provided info & GE).

Grading - Assumed site balanced. ~0.98 ac of potential existing asphalt paving removal (i.e., existing parking lots/driveways etc.) during site prep.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50g/L VOC for buildings & 100g/L VOC for parking lot striping.

Vehicle Trips - - Per trip gen, 5.44 trips/DU for MF & 37.75 trips/TSF for commercial uses.

Woodstoves - SCAQMD Rule 445 prohibits installation of wood burning devices in new developments.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile Land Use Mitigation - Site is ~0.05 miles NW of Metro Rte 62 stop Pioneer/168th & ~0.88 miles N of downtown portion of Artesia. Sidewalks provided on/off-site. Up to 95du/ac for SP. LUT-3- mixed use res/comm.

Energy Mitigation - Energy efficient appliances.

Water Mitigation - Per CalGreen Stanards, 20% indoor water reduction. Water-efficient irrigation systems.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.05	0.79
tblTripsAndVMT	HaulingTripNumber	0.00	14.00

2.0 Emissions Summary

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.5505	14.3247	14.0381	0.0277	7.1944	0.6346	7.7673	3.4544	0.5927	3.9814	0.0000	2,653.443 2	2,653.443 2	0.6477	0.0722	2,678.788 2
2025	56.9163	10.8672	13.8396	0.0276	0.5112	0.3969	0.9081	0.1370	0.3827	0.5197	0.0000	2,582.864 4	2,582.864 4	0.4141	0.0359	2,602.116 1
Maximum	56.9163	14.3247	14.0381	0.0277	7.1944	0.6346	7.7673	3.4544	0.5927	3.9814	0.0000	2,653.443 2	2,653.443 2	0.6477	0.0722	2,678.788 2

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.5505	14.3247	14.0381	0.0277	2.8740	0.6346	3.4469	1.3653	0.5927	1.8924	0.0000	2,653.443 1	2,653.443 1	0.6477	0.0722	2,678.788 2
2025	56.9163	10.8672	13.8396	0.0276	0.5112	0.3969	0.9081	0.1370	0.3827	0.5197	0.0000	2,582.864 4	2,582.864 4	0.4141	0.0359	2,602.116 1
Maximum	56.9163	14.3247	14.0381	0.0277	2.8740	0.6346	3.4469	1.3653	0.5927	1.8924	0.0000	2,653.443 1	2,653.443 1	0.6477	0.0722	2,678.788 2

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	56.07	0.00	49.80	58.17	0.00	46.41	0.00	0.00	0.00	0.00	0.00	0.00

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.626 3	1.1231	0.0254	1,136.281 3
Energy	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360
Mobile	4.3308	3.8731	38.5591	0.0818	8.7464	0.0597	8.8061	2.3299	0.0554	2.3853		8,554.876 7	8,554.876 7	0.5938	0.3599	8,676.980 7
Total	16.5530	4.8879	62.2703	0.1348	8.7464	3.1454	11.8918	2.3299	3.1411	5.4710	374.6767	9,467.254 4	9,841.931 2	1.7205	0.3888	10,000.79 80

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.626 3	1.1231	0.0254	1,136.281 3
Energy	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360
Mobile	3.0557	2.0029	18.3205	0.0297	3.0040	0.0249	3.0289	0.8002	0.0231	0.8233		3,103.956 5	3,103.956 5	0.3194	0.1853	3,167.166 3
Total	15.2779	3.0178	42.0317	0.0827	3.0040	3.1106	6.1146	0.8002	3.1088	3.9090	374.6767	4,016.334 2	4,391.010 9	1.4460	0.2142	4,490.983 6

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	7.70	38.26	32.50	38.67	65.65	1.11	48.58	65.66	1.03	28.55	0.00	57.58	55.38	15.95	44.91	55.09

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/2/2024	10/29/2024	5	20	
2	Site Preparation	Site Preparation	10/30/2024	10/31/2024	5	2	
3	Grading	Grading	11/1/2024	11/6/2024	5	4	
4	Building Construction	Building Construction	11/7/2024	8/13/2025	5	200	
5	Paving	Paving	8/14/2025	8/27/2025	5	10	
6	Architectural Coating	Architectural Coating	8/28/2025	9/10/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.88**Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 81,000; Residential Outdoor: 27,000; Non-Residential Indoor: 51,285; Non-Residential Outdoor: 17,095; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	63.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	14.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**Water Exposed Area**

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6852	0.0000	0.6852	0.1038	0.0000	0.1038			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895		2,324.945 9	2,324.945 9	0.5884		2,339.656 2
Total	1.4397	13.8867	13.4879	0.0241	0.6852	0.6311	1.3163	0.1038	0.5895	0.6932		2,324.945 9	2,324.945 9	0.5884		2,339.656 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.7900e-003	0.4121	0.1117	1.8100e-003	0.0551	2.6100e-003	0.0578	0.0151	2.5000e-003	0.0176		199.5712	199.5712	0.0113	0.0317	209.3003
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
Worker	0.0388	0.0259	0.4385	1.2500e-003	0.1453	8.4000e-004	0.1462	0.0385	7.7000e-004	0.0393		128.9261	128.9261	2.9700e-003	2.7900e-003	129.8317
Total	0.0456	0.4380	0.5501	3.0600e-003	0.2005	3.4500e-003	0.2039	0.0537	3.2700e-003	0.0569		328.4973	328.4973	0.0142	0.0345	339.1320

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2672	0.0000	0.2672	0.0405	0.0000	0.0405			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895	0.0000	2,324.945 9	2,324.945 9	0.5884		2,339.656 2
Total	1.4397	13.8867	13.4879	0.0241	0.2672	0.6311	0.8983	0.0405	0.5895	0.6299	0.0000	2,324.945 9	2,324.945 9	0.5884		2,339.656 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.7900e-003	0.4121	0.1117	1.8100e-003	0.0551	2.6100e-003	0.0578	0.0151	2.5000e-003	0.0176		199.5712	199.5712	0.0113	0.0317	209.3003
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
Worker	0.0388	0.0259	0.4385	1.2500e-003	0.1453	8.4000e-004	0.1462	0.0385	7.7000e-004	0.0393		128.9261	128.9261	2.9700e-003	2.7900e-003	129.8317
Total	0.0456	0.4380	0.5501	3.0600e-003	0.2005	3.4500e-003	0.2039	0.0537	3.2700e-003	0.0569		328.4973	328.4973	0.0142	0.0345	339.1320

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437		1,665.8826	1,665.8826	0.5388		1,679.3521
Total	1.1067	11.8407	6.6317	0.0172	6.2662	0.4823	6.7485	3.0041	0.4437	3.4478		1,665.8826	1,665.8826	0.5388		1,679.3521

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	0.9158	0.2481	4.0300e-003	0.1225	5.8100e-003	0.1283	0.0336	5.5600e-003	0.0392		443.4916	443.4916	0.0250	0.0705	465.1118
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
Worker	0.0239	0.0160	0.2698	7.7000e-004	0.0894	5.2000e-004	0.0899	0.0237	4.8000e-004	0.0242		79.3391	79.3391	1.8300e-003	1.7200e-003	79.8964
Total	0.0390	0.9317	0.5180	4.8000e-003	0.2120	6.3300e-003	0.2183	0.0573	6.0400e-003	0.0633		522.8307	522.8307	0.0269	0.0722	545.0082

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4438	0.0000	2.4438	1.1716	0.0000	1.1716			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437	0.0000	1,665.882 6	1,665.882 6	0.5388		1,679.352 1
Total	1.1067	11.8407	6.6317	0.0172	2.4438	0.4823	2.9261	1.1716	0.4437	1.6153	0.0000	1,665.882 6	1,665.882 6	0.5388		1,679.352 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	0.9158	0.2481	4.0300e-003	0.1225	5.8100e-003	0.1283	0.0336	5.5600e-003	0.0392		443.4916	443.4916	0.0250	0.0705	465.1118
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
Worker	0.0239	0.0160	0.2698	7.7000e-004	0.0894	5.2000e-004	0.0899	0.0237	4.8000e-004	0.0242		79.3391	79.3391	1.8300e-003	1.7200e-003	79.8964
Total	0.0390	0.9317	0.5180	4.8000e-003	0.2120	6.3300e-003	0.2183	0.0573	6.0400e-003	0.0633		522.8307	522.8307	0.0269	0.0722	545.0082

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.580 3	1,995.580 3	0.6454		2,011.715 5
Total	1.3015	13.8178	8.6998	0.0206	7.0826	0.5722	7.6548	3.4247	0.5265	3.9512		1,995.580 3	1,995.580 3	0.6454		2,011.715 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0299	0.0199	0.3373	9.6000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		99.1739	99.1739	2.2800e-003	2.1500e-003	99.8705
Total	0.0299	0.0199	0.3373	9.6000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		99.1739	99.1739	2.2800e-003	2.1500e-003	99.8705

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5
Total	1.3015	13.8178	8.6998	0.0206	2.7622	0.5722	3.3345	1.3357	0.5265	1.8621	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0299	0.0199	0.3373	9.6000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		99.1739	99.1739	2.2800e-003	2.1500e-003	99.8705
Total	0.0299	0.0199	0.3373	9.6000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		99.1739	99.1739	2.2800e-003	2.1500e-003	99.8705

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.3846	0.1455	1.8300e-003	0.0641	1.9400e-003	0.0660	0.0184	1.8600e-003	0.0203		197.2746	197.2746	6.7400e-003	0.0284	205.9040
Worker	0.1194	0.0798	1.3492	3.8500e-003	0.4471	2.5900e-003	0.4497	0.1186	2.3800e-003	0.1210		396.6956	396.6956	9.1300e-003	8.5900e-003	399.4821
Total	0.1306	0.4644	1.4947	5.6800e-003	0.5112	4.5300e-003	0.5157	0.1370	4.2400e-003	0.1413		593.9702	593.9702	0.0159	0.0370	605.3861

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.3846	0.1455	1.8300e-003	0.0641	1.9400e-003	0.0660	0.0184	1.8600e-003	0.0203		197.2746	197.2746	6.7400e-003	0.0284	205.9040
Worker	0.1194	0.0798	1.3492	3.8500e-003	0.4471	2.5900e-003	0.4497	0.1186	2.3800e-003	0.1210		396.6956	396.6956	9.1300e-003	8.5900e-003	399.4821
Total	0.1306	0.4644	1.4947	5.6800e-003	0.5112	4.5300e-003	0.5157	0.1370	4.2400e-003	0.1413		593.9702	593.9702	0.0159	0.0370	605.3861

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0109	0.3828	0.1429	1.8000e-003	0.0641	1.9500e-003	0.0660	0.0184	1.8600e-003	0.0203		193.7229	193.7229	6.7800e-003	0.0279	202.2070
Worker	0.1117	0.0717	1.2574	3.7100e-003	0.4471	2.4700e-003	0.4496	0.1186	2.2700e-003	0.1209		386.9890	386.9890	8.2300e-003	8.0200e-003	389.5843
Total	0.1225	0.4545	1.4003	5.5100e-003	0.5112	4.4200e-003	0.5156	0.1370	4.1300e-003	0.1412		580.7119	580.7119	0.0150	0.0359	591.7914

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0109	0.3828	0.1429	1.8000e-003	0.0641	1.9500e-003	0.0660	0.0184	1.8600e-003	0.0203		193.7229	193.7229	6.7800e-003	0.0279	202.2070
Worker	0.1117	0.0717	1.2574	3.7100e-003	0.4471	2.4700e-003	0.4496	0.1186	2.2700e-003	0.1209		386.9890	386.9890	8.2300e-003	8.0200e-003	389.5843
Total	0.1225	0.4545	1.4003	5.5100e-003	0.5112	4.4200e-003	0.5156	0.1370	4.1300e-003	0.1412		580.7119	580.7119	0.0150	0.0359	591.7914

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.809 6	1,297.809 6	0.4114		1,308.095 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.809 6	1,297.809 6	0.4114		1,308.095 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0363	0.0233	0.4087	1.2100e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		125.7714	125.7714	2.6700e-003	2.6100e-003	126.6149
Total	0.0363	0.0233	0.4087	1.2100e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		125.7714	125.7714	2.6700e-003	2.6100e-003	126.6149

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.809 6	1,297.809 6	0.4114		1,308.095 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.809 6	1,297.809 6	0.4114		1,308.095 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0363	0.0233	0.4087	1.2100e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		125.7714	125.7714	2.6700e-003	2.6100e-003	126.6149
Total	0.0363	0.0233	0.4087	1.2100e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		125.7714	125.7714	2.6700e-003	2.6100e-003	126.6149

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 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	lb/day										lb/day					
Archit. Coating	56.7231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	56.8940	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0223	0.0143	0.2515	7.4000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		77.3978	77.3978	1.6500e-003	1.6000e-003	77.9169
Total	0.0223	0.0143	0.2515	7.4000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		77.3978	77.3978	1.6500e-003	1.6000e-003	77.9169

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.7231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	56.8940	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0223	0.0143	0.2515	7.4000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		77.3978	77.3978	1.6500e-003	1.6000e-003	77.9169
Total	0.0223	0.0143	0.2515	7.4000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		77.3978	77.3978	1.6500e-003	1.6000e-003	77.9169

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0557	2.0029	18.3205	0.0297	3.0040	0.0249	3.0289	0.8002	0.0231	0.8233		3,103.9565	3,103.9565	0.3194	0.1853	3,167.1663
Unmitigated	4.3308	3.8731	38.5591	0.0818	8.7464	0.0597	8.8061	2.3299	0.0554	2.3853		8,554.8767	8,554.8767	0.5938	0.3599	8,676.9807

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartment Mid Rise	217.60	196.40	163.60	706,862	242,772
Regional Shopping Center	1,290.67	1,576.84	721.41	2,704,054	928,708
Total	1,508.27	1,773.24	885.01	3,410,916	1,171,481

4.3 Trip Type Information

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Regional Shopping Center	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360
NaturalGas Unmitigated	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1431.96	0.0154	0.1320	0.0562	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.4653	168.4653	3.2300e-003	3.0900e-003	169.4664
Regional Shopping Center	152.684	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003		17.9628	17.9628	3.4000e-004	3.3000e-004	18.0696
Total		0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.43196	0.0154	0.1320	0.0562	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.4653	168.4653	3.2300e-003	3.0900e-003	169.4664
Regional Shopping Center	0.152684	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003		17.9628	17.9628	3.4000e-004	3.3000e-004	18.0696
Total		0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360

6.0 Area Detail

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813
Unmitigated	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	10.4814	0.8299	20.3421	0.0519		3.0555	3.0555		3.0555	3.0555	374.6767	720.0000	1,094.6767	1.1174	0.0254	1,130.1890
Landscaping	0.0993	0.0380	3.3004	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9496	5.9496	5.7100e-003		6.0923
Total	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	10.4814	0.8299	20.3421	0.0519		3.0555	3.0555		3.0555	3.0555	374.6767	720.0000	1,094.6767	1.1174	0.0254	1,130.1890
Landscaping	0.0993	0.0380	3.3004	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9496	5.9496	5.7100e-003		6.0923
Total	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Artesia Residential Development - REMAINDER SPECIFIC PLAN****Los Angeles-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	40.00	Dwelling Unit	0.79	40,000.00	114
Regional Shopping Center	34.19	1000sqft	0.78	34,190.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - RMNDR SP AREA - 1.57 ac w/ up to 40 DU & 34.19 TSF commercial uses.

Construction Phase - Construction unknown at this time. Assumed no overlap with project (start date of Oct 2, 2024 - soonest start date, conservative). CalEEMod default timing utilized other than architectural coating.

Trips and VMT - ~0.98 ac (42,689 sf) site prep to remove existing asphalt surfaces. 42,689x0.3in=12,807cfx45lbs=576,302lbs=~288tons. Assumed ~14 haul trucks during site prep.

Demolition - Up to ~13,922 sf demo (all existing bldgs on remainder SP area, estimated through applicant provided info & GE).

Grading - Assumed site balanced. ~0.98 ac of potential existing asphalt paving removal (i.e., existing parking lots/driveways etc.) during site prep.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50g/L VOC for buildings & 100g/L VOC for parking lot striping.

Vehicle Trips - - Per trip gen, 5.44 trips/DU for MF & 37.75 trips/TSF for commercial uses.

Woodstoves - SCAQMD Rule 445 prohibits installation of wood burning devices in new developments.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile Land Use Mitigation - Site is ~0.05 miles NW of Metro Rte 62 stop Pioneer/168th & ~0.88 miles N of downtown portion of Artesia. Sidewalks provided on/off-site. Up to 95du/ac for SP. LUT-3- mixed use res/comm.

Energy Mitigation - Energy efficient appliances.

Water Mitigation - Per CalGreen Stanards, 20% indoor water reduction. Water-efficient irrigation systems.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.05	0.79
tblTripsAndVMT	HaulingTripNumber	0.00	14.00

2.0 Emissions Summary

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.5594	14.3456	14.0045	0.0275	7.1944	0.6346	7.7673	3.4544	0.5927	3.9814	0.0000	2,646.870 5	2,646.870 5	0.6477	0.0724	2,672.282 8
2025	56.9181	10.8927	13.7445	0.0274	0.5112	0.3969	0.9081	0.1370	0.3827	0.5197	0.0000	2,562.879 2	2,562.879 2	0.4141	0.0365	2,582.316 4
Maximum	56.9181	14.3456	14.0045	0.0275	7.1944	0.6346	7.7673	3.4544	0.5927	3.9814	0.0000	2,646.870 5	2,646.870 5	0.6477	0.0724	2,672.282 8

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.5594	14.3456	14.0045	0.0275	2.8740	0.6346	3.4469	1.3653	0.5927	1.8924	0.0000	2,646.870 5	2,646.870 5	0.6477	0.0724	2,672.282 8
2025	56.9181	10.8927	13.7445	0.0274	0.5112	0.3969	0.9081	0.1370	0.3827	0.5197	0.0000	2,562.879 2	2,562.879 2	0.4141	0.0365	2,582.316 4
Maximum	56.9181	14.3456	14.0045	0.0275	2.8740	0.6346	3.4469	1.3653	0.5927	1.8924	0.0000	2,646.870 5	2,646.870 5	0.6477	0.0724	2,672.282 8

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	56.07	0.00	49.80	58.17	0.00	46.41	0.00	0.00	0.00	0.00	0.00	0.00

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813
Energy	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360
Mobile	4.2284	4.1809	38.3019	0.0784	8.7464	0.0598	8.8062	2.3299	0.0555	2.3854		8,198.0421	8,198.0421	0.6160	0.3760	8,325.4933
Total	16.4506	5.1958	62.0131	0.1314	8.7464	3.1454	11.8918	2.3299	3.1411	5.4710	374.6767	9,110.4198	9,485.0966	1.7426	0.4049	9,649.3105

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813
Energy	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360
Mobile	2.9400	2.1635	19.2101	0.0285	3.0040	0.0250	3.0289	0.8002	0.0232	0.8234		2,983.8774	2,983.8774	0.3425	0.1947	3,050.4454
Total	15.1622	3.1784	42.9214	0.0815	3.0040	3.1106	6.1146	0.8002	3.1088	3.9090	374.6767	3,896.2551	4,270.9319	1.4691	0.2235	4,374.2627

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	7.83	38.83	30.79	37.95	65.65	1.11	48.58	65.66	1.03	28.55	0.00	57.23	54.97	15.69	44.80	54.67

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/2/2024	10/29/2024	5	20	
2	Site Preparation	Site Preparation	10/30/2024	10/31/2024	5	2	
3	Grading	Grading	11/1/2024	11/6/2024	5	4	
4	Building Construction	Building Construction	11/7/2024	8/13/2025	5	200	
5	Paving	Paving	8/14/2025	8/27/2025	5	10	
6	Architectural Coating	Architectural Coating	8/28/2025	9/10/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.88**Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 81,000; Residential Outdoor: 27,000; Non-Residential Indoor: 51,285; Non-Residential Outdoor: 17,095; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	63.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	14.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6852	0.0000	0.6852	0.1038	0.0000	0.1038			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895		2,324.945 9	2,324.945 9	0.5884		2,339.656 2
Total	1.4397	13.8867	13.4879	0.0241	0.6852	0.6311	1.3163	0.1038	0.5895	0.6932		2,324.945 9	2,324.945 9	0.5884		2,339.656 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.3500e-003	0.4303	0.1131	1.8200e-003	0.0551	2.6200e-003	0.0578	0.0151	2.5100e-003	0.0176		199.7845	199.7845	0.0112	0.0317	209.5233
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
Worker	0.0418	0.0286	0.4034	1.1800e-003	0.1453	8.4000e-004	0.1462	0.0385	7.7000e-004	0.0393		122.1402	122.1402	3.0100e-003	2.9800e-003	123.1033
Total	0.0482	0.4589	0.5165	3.0000e-003	0.2005	3.4600e-003	0.2039	0.0537	3.2800e-003	0.0569		321.9247	321.9247	0.0142	0.0347	332.6266

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2672	0.0000	0.2672	0.0405	0.0000	0.0405			0.0000			0.0000
Off-Road	1.4397	13.8867	13.4879	0.0241		0.6311	0.6311		0.5895	0.5895	0.0000	2,324.945 9	2,324.945 9	0.5884		2,339.656 2
Total	1.4397	13.8867	13.4879	0.0241	0.2672	0.6311	0.8983	0.0405	0.5895	0.6299	0.0000	2,324.945 9	2,324.945 9	0.5884		2,339.656 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.3500e-003	0.4303	0.1131	1.8200e-003	0.0551	2.6200e-003	0.0578	0.0151	2.5100e-003	0.0176		199.7845	199.7845	0.0112	0.0317	209.5233
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
Worker	0.0418	0.0286	0.4034	1.1800e-003	0.1453	8.4000e-004	0.1462	0.0385	7.7000e-004	0.0393		122.1402	122.1402	3.0100e-003	2.9800e-003	123.1033
Total	0.0482	0.4589	0.5165	3.0000e-003	0.2005	3.4600e-003	0.2039	0.0537	3.2800e-003	0.0569		321.9247	321.9247	0.0142	0.0347	332.6266

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437		1,665.8826	1,665.8826	0.5388		1,679.3521
Total	1.1067	11.8407	6.6317	0.0172	6.2662	0.4823	6.7485	3.0041	0.4437	3.4478		1,665.8826	1,665.8826	0.5388		1,679.3521

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0141	0.9562	0.2514	4.0300e-003	0.1225	5.8200e-003	0.1284	0.0336	5.5700e-003	0.0392		443.9655	443.9655	0.0250	0.0705	465.6074
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
Worker	0.0257	0.0176	0.2483	7.3000e-004	0.0894	5.2000e-004	0.0899	0.0237	4.8000e-004	0.0242		75.1632	75.1632	1.8500e-003	1.8300e-003	75.7559
Total	0.0398	0.9738	0.4997	4.7600e-003	0.2120	6.3400e-003	0.2183	0.0573	6.0500e-003	0.0634		519.1287	519.1287	0.0268	0.0724	541.3632

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4438	0.0000	2.4438	1.1716	0.0000	1.1716			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437	0.0000	1,665.882 6	1,665.882 6	0.5388		1,679.352 1
Total	1.1067	11.8407	6.6317	0.0172	2.4438	0.4823	2.9261	1.1716	0.4437	1.6153	0.0000	1,665.882 6	1,665.882 6	0.5388		1,679.352 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0141	0.9562	0.2514	4.0300e-003	0.1225	5.8200e-003	0.1284	0.0336	5.5700e-003	0.0392		443.9655	443.9655	0.0250	0.0705	465.6074
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
Worker	0.0257	0.0176	0.2483	7.3000e-004	0.0894	5.2000e-004	0.0899	0.0237	4.8000e-004	0.0242		75.1632	75.1632	1.8500e-003	1.8300e-003	75.7559
Total	0.0398	0.9738	0.4997	4.7600e-003	0.2120	6.3400e-003	0.2183	0.0573	6.0500e-003	0.0634		519.1287	519.1287	0.0268	0.0724	541.3632

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.580 3	1,995.580 3	0.6454		2,011.715 5
Total	1.3015	13.8178	8.6998	0.0206	7.0826	0.5722	7.6548	3.4247	0.5265	3.9512		1,995.580 3	1,995.580 3	0.6454		2,011.715 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0322	0.0220	0.3103	9.1000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		93.9540	93.9540	2.3200e-003	2.2900e-003	94.6948
Total	0.0322	0.0220	0.3103	9.1000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		93.9540	93.9540	2.3200e-003	2.2900e-003	94.6948

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5
Total	1.3015	13.8178	8.6998	0.0206	2.7622	0.5722	3.3345	1.3357	0.5265	1.8621	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0322	0.0220	0.3103	9.1000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		93.9540	93.9540	2.3200e-003	2.2900e-003	94.6948
Total	0.0322	0.0220	0.3103	9.1000e-004	0.1118	6.5000e-004	0.1124	0.0296	6.0000e-004	0.0302		93.9540	93.9540	2.3200e-003	2.2900e-003	94.6948

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0108	0.4027	0.1502	1.8300e-003	0.0641	1.9500e-003	0.0660	0.0184	1.8700e-003	0.0203		197.6143	197.6143	6.7100e-003	0.0285	206.2652
Worker	0.1287	0.0881	1.2412	3.6400e-003	0.4471	2.5900e-003	0.4497	0.1186	2.3800e-003	0.1210		375.8160	375.8160	9.2600e-003	9.1700e-003	378.7793
Total	0.1395	0.4908	1.3914	5.4700e-003	0.5112	4.5400e-003	0.5157	0.1370	4.2500e-003	0.1413		573.4303	573.4303	0.0160	0.0376	585.0445

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0108	0.4027	0.1502	1.8300e-003	0.0641	1.9500e-003	0.0660	0.0184	1.8700e-003	0.0203		197.6143	197.6143	6.7100e-003	0.0285	206.2652
Worker	0.1287	0.0881	1.2412	3.6400e-003	0.4471	2.5900e-003	0.4497	0.1186	2.3800e-003	0.1210		375.8160	375.8160	9.2600e-003	9.1700e-003	378.7793
Total	0.1395	0.4908	1.3914	5.4700e-003	0.5112	4.5400e-003	0.5157	0.1370	4.2500e-003	0.1413		573.4303	573.4303	0.0160	0.0376	585.0445

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0104	0.4008	0.1474	1.8000e-003	0.0641	1.9600e-003	0.0660	0.0184	1.8700e-003	0.0203		194.0625	194.0625	6.7500e-003	0.0280	202.5675
Worker	0.1208	0.0791	1.1577	3.5200e-003	0.4471	2.4700e-003	0.4496	0.1186	2.2700e-003	0.1209		366.6643	366.6643	8.3600e-003	8.5600e-003	369.4241
Total	0.1312	0.4799	1.3051	5.3200e-003	0.5112	4.4300e-003	0.5156	0.1370	4.1400e-003	0.1412		560.7268	560.7268	0.0151	0.0365	571.9916

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0104	0.4008	0.1474	1.8000e-003	0.0641	1.9600e-003	0.0660	0.0184	1.8700e-003	0.0203		194.0625	194.0625	6.7500e-003	0.0280	202.5675
Worker	0.1208	0.0791	1.1577	3.5200e-003	0.4471	2.4700e-003	0.4496	0.1186	2.2700e-003	0.1209		366.6643	366.6643	8.3600e-003	8.5600e-003	369.4241
Total	0.1312	0.4799	1.3051	5.3200e-003	0.5112	4.4300e-003	0.5156	0.1370	4.1400e-003	0.1412		560.7268	560.7268	0.0151	0.0365	571.9916

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.809 6	1,297.809 6	0.4114		1,308.095 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.809 6	1,297.809 6	0.4114		1,308.095 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0393	0.0257	0.3763	1.1400e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		119.1659	119.1659	2.7200e-003	2.7800e-003	120.0628
Total	0.0393	0.0257	0.3763	1.1400e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		119.1659	119.1659	2.7200e-003	2.7800e-003	120.0628

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.809 6	1,297.809 6	0.4114		1,308.095 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.809 6	1,297.809 6	0.4114		1,308.095 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0393	0.0257	0.3763	1.1400e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		119.1659	119.1659	2.7200e-003	2.7800e-003	120.0628
Total	0.0393	0.0257	0.3763	1.1400e-003	0.1453	8.0000e-004	0.1461	0.0385	7.4000e-004	0.0393		119.1659	119.1659	2.7200e-003	2.7800e-003	120.0628

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 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	lb/day										lb/day					
Archit. Coating	56.7231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	56.8940	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0242	0.0158	0.2315	7.0000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		73.3329	73.3329	1.6700e-003	1.7100e-003	73.8848
Total	0.0242	0.0158	0.2315	7.0000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		73.3329	73.3329	1.6700e-003	1.7100e-003	73.8848

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.7231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	56.8940	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Worker	0.0242	0.0158	0.2315	7.0000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		73.3329	73.3329	1.6700e-003	1.7100e-003	73.8848
Total	0.0242	0.0158	0.2315	7.0000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		73.3329	73.3329	1.6700e-003	1.7100e-003	73.8848

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9400	2.1635	19.2101	0.0285	3.0040	0.0250	3.0289	0.8002	0.0232	0.8234		2,983.877 4	2,983.877 4	0.3425	0.1947	3,050.445 4
Unmitigated	4.2284	4.1809	38.3019	0.0784	8.7464	0.0598	8.8062	2.3299	0.0555	2.3854		8,198.042 1	8,198.042 1	0.6160	0.3760	8,325.493 3

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartment Mid Rise	217.60	196.40	163.60	706,862	242,772
Regional Shopping Center	1,290.67	1,576.84	721.41	2,704,054	928,708
Total	1,508.27	1,773.24	885.01	3,410,916	1,171,481

4.3 Trip Type Information

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Regional Shopping Center	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360
NaturalGas Unmitigated	0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1431.96	0.0154	0.1320	0.0562	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.4653	168.4653	3.2300e-003	3.0900e-003	169.4664
Regional Shopping Center	152.684	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003		17.9628	17.9628	3.4000e-004	3.3000e-004	18.0696
Total		0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.43196	0.0154	0.1320	0.0562	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.4653	168.4653	3.2300e-003	3.0900e-003	169.4664
Regional Shopping Center	0.152684	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003		17.9628	17.9628	3.4000e-004	3.3000e-004	18.0696
Total		0.0171	0.1469	0.0687	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.4281	186.4281	3.5700e-003	3.4200e-003	187.5360

6.0 Area Detail

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813
Unmitigated	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	10.4814	0.8299	20.3421	0.0519		3.0555	3.0555		3.0555	3.0555	374.6767	720.0000	1,094.6767	1.1174	0.0254	1,130.1890
Landscaping	0.0993	0.0380	3.3004	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9496	5.9496	5.7100e-003		6.0923
Total	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	10.4814	0.8299	20.3421	0.0519		3.0555	3.0555		3.0555	3.0555	374.6767	720.0000	1,094.6767	1.1174	0.0254	1,130.1890
Landscaping	0.0993	0.0380	3.3004	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9496	5.9496	5.7100e-003		6.0923
Total	12.2051	0.8679	23.6425	0.0521		3.0738	3.0738		3.0738	3.0738	374.6767	725.9496	1,100.6263	1.1231	0.0254	1,136.2813

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Appendix B:

CalEEMod Annual Emission Output

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Artesia Residential Development - PROJECT****Los Angeles-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.66	Acre	0.66	28,749.60	0
Other Non-Asphalt Surfaces	0.32	Acre	0.32	13,939.20	0
Apartments Mid Rise	59.00	Dwelling Unit	1.55	59,000.00	169
Regional Shopping Center	5.29	1000sqft	0.12	5,290.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.65 ac w/ 59 DU & 5.29 TSF commercial, ~25% site (~0.66 ac) paving of on-site driveways/street parking spcs, & remainder (~0.32 ac) landscaping/hardscape etc.

Construction Phase - Construction anticipated to begin late 2022 & last until late 2024. Therefore, construction assumed to begin early October 2022 and last until early October 2024 (~24 months).

Trips and VMT - ~2.25 ac (98,213 sf) site prep to remove existing asphalt surfaces. $98,213 \times 0.3 \text{ in} = 29,464 \text{ cfx} \times 45 \text{ lbs} = 1,325,876 \text{ lbs} \approx 601 \text{ tons}$. Assumed ~30 haul trucks during site prep.

Demolition - ~8,727 sf existing bldgs to be demolished.

Grading - ~436 CY import during grading. Site prep of ~2.25 ac of site to remove existing asphalt surfaces.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50g/L VOC for buildings & 100g/L VOC for parking lot striping.

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vehicle Trips - Per trip gen, 5.44 trips/DU for MF & 37.75 trips/TSF for commercial uses.

Woodstoves - SCAQMD Rule 445 prohibits installation of wood burning devices in new developments.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Mobile Land Use Mitigation - Site is ~0.06 miles NW of Metro Rte 62 stop Pioneer/168th & ~0.88 miles N of downtown portion of Artesia. Sidewalks provided on/off-site. 59DU/2.65 ac=22du/ac. LUT-3- mixeduse res/comm.

Area Mitigation -

Energy Mitigation - Energy efficient appliances.

Water Mitigation - Per CalGreen Stanards, 20% indoor water reduction. Water-efficient irrigation systems.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	220.00	428.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	NumberGas	50.15	53.10
tblFireplaces	NumberWood	2.95	0.00
tblGrading	AcresOfGrading	7.50	2.25
tblGrading	MaterialImported	0.00	436.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblVehicleTrips	ST_TR	4.91	5.44
tblVehicleTrips	ST_TR	46.12	37.75
tblVehicleTrips	SU_TR	4.09	5.44
tblVehicleTrips	SU_TR	21.10	37.75
tblWoodstoves	NumberCatalytic	2.95	0.00

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	:	NumberNoncatalytic	:	2.95	:	0.00
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2.0 Emissions Summary

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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					
2022	0.0573	0.5432	0.4531	9.0000e-004	0.0503	0.0254	0.0757	0.0204	0.0238	0.0442	0.0000	78.6305	78.6305	0.0176	9.8000e-004	79.3636
2023	0.2504	1.8648	2.1507	4.3600e-003	0.0998	0.0807	0.1805	0.0268	0.0773	0.1041	0.0000	374.2884	374.2884	0.0540	6.5900e-003	377.6039
2024	0.3544	1.1470	1.4126	2.8300e-003	0.0626	0.0470	0.1096	0.0168	0.0449	0.0617	0.0000	243.3984	243.3984	0.0370	3.8700e-003	245.4783
Maximum	0.3544	1.8648	2.1507	4.3600e-003	0.0998	0.0807	0.1805	0.0268	0.0773	0.1041	0.0000	374.2884	374.2884	0.0540	6.5900e-003	377.6039

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0573	0.5432	0.4531	9.0000e-004	0.0253	0.0254	0.0507	9.4900e-003	0.0238	0.0333	0.0000	78.6304	78.6304	0.0176	9.8000e-004	79.3635
2023	0.2504	1.8648	2.1507	4.3600e-003	0.0998	0.0807	0.1805	0.0268	0.0773	0.1041	0.0000	374.2880	374.2880	0.0540	6.5900e-003	377.6035
2024	0.3544	1.1470	1.4126	2.8300e-003	0.0626	0.0470	0.1096	0.0168	0.0449	0.0617	0.0000	243.3982	243.3982	0.0370	3.8700e-003	245.4781
Maximum	0.3544	1.8648	2.1507	4.3600e-003	0.0998	0.0807	0.1805	0.0268	0.0773	0.1041	0.0000	374.2880	374.2880	0.0540	6.5900e-003	377.6035

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	11.73	0.00	6.82	17.07	0.00	5.20	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2022	12-31-2022	0.6073	0.6073
2	1-1-2023	3-31-2023	0.5233	0.5233
3	4-1-2023	6-30-2023	0.5274	0.5274
4	7-1-2023	9-30-2023	0.5332	0.5332
5	10-1-2023	12-31-2023	0.5350	0.5350
6	1-1-2024	3-31-2024	0.4984	0.4984
7	4-1-2024	6-30-2024	0.4967	0.4967
8	7-1-2024	9-30-2024	0.4886	0.4886
		Highest	0.6073	0.6073

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2762	0.0180	0.6130	1.0000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	13.7453	13.7453	1.2000e-003	2.3000e-004	13.8450
Energy	4.2000e-003	0.0360	0.0155	2.3000e-004		2.9000e-003	2.9000e-003		2.9000e-003	2.9000e-003	0.0000	94.1388	94.1388	5.2300e-003	1.3000e-003	94.6571
Mobile	0.2547	0.2819	2.5522	5.4400e-003	0.5743	4.0300e-003	0.5784	0.1532	3.7400e-003	0.1570	0.0000	511.9580	511.9580	0.0358	0.0224	519.5412
Waste						0.0000	0.0000		0.0000	0.0000	6.6358	0.0000	6.6358	0.3922	0.0000	16.4399
Water						0.0000	0.0000		0.0000	0.0000	1.3439	15.0298	16.3737	0.1393	3.4100e-003	20.8731
Total	0.5351	0.3358	3.1806	5.7700e-003	0.5743	0.0112	0.5855	0.1532	0.0109	0.1641	7.9796	634.8720	642.8516	0.5737	0.0274	665.3562

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2762	0.0180	0.6130	1.0000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	13.7453	13.7453	1.2000e-003	2.3000e-004	13.8450
Energy	4.2000e-003	0.0360	0.0155	2.3000e-004		2.9000e-003	2.9000e-003		2.9000e-003	2.9000e-003	0.0000	92.8338	92.8338	5.1200e-003	1.2900e-003	93.3453
Mobile	0.1842	0.1644	1.4601	2.6300e-003	0.2702	2.0900e-003	0.2723	0.0721	1.9400e-003	0.0740	0.0000	247.4702	247.4702	0.0222	0.0132	251.9478
Waste						0.0000	0.0000		0.0000	0.0000	1.6589	0.0000	1.6589	0.0980	0.0000	4.1100
Water						0.0000	0.0000		0.0000	0.0000	1.0751	13.0735	14.1486	0.1115	2.7400e-003	17.7536
Total	0.4646	0.2184	2.0885	2.9600e-003	0.2702	9.2500e-003	0.2794	0.0721	9.1000e-003	0.0812	2.7340	367.1228	369.8568	0.2381	0.0174	381.0016

	ROG	NOx	CO	SO2	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	13.17	34.97	34.34	48.70	52.96	17.34	52.28	52.96	16.51	50.54	65.74	42.17	42.47	58.50	36.34	42.74

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2022	11/22/2022	5	37	
2	Site Preparation	Site Preparation	11/23/2022	11/29/2022	5	5	
3	Grading	Grading	11/30/2022	12/13/2022	5	10	

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	12/14/2022	8/2/2024	5	428
5	Paving	Paving	8/3/2024	9/2/2024	5	21
6	Architectural Coating	Architectural Coating	9/3/2024	10/1/2024	5	21

Acres of Grading (Site Preparation Phase): 2.25**Acres of Grading (Grading Phase): 10****Acres of Paving: 0.98****Residential Indoor: 119,475; Residential Outdoor: 39,825; Non-Residential Indoor: 7,935; Non-Residential Outdoor: 2,645; Striped Parking Area: 2,561 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	40.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	30.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	43.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	62.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.3000e-003	0.0000	4.3000e-003	6.5000e-004	0.0000	6.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.3075	0.2583	4.5000e-004		0.0155	0.0155		0.0145	0.0145	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421
Total	0.0313	0.3075	0.2583	4.5000e-004	4.3000e-003	0.0155	0.0198	6.5000e-004	0.0145	0.0151	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421

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	9.0000e-005	3.5400e-003	7.9000e-004	1.0000e-005	3.4000e-004	2.0000e-005	3.7000e-004	9.0000e-005	2.0000e-005	1.2000e-004	0.0000	1.2353	1.2353	7.0000e-005	2.0000e-004	1.2954
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	8.2000e-004	6.9000e-004	8.9300e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1815	2.1815	6.0000e-005	6.0000e-005	2.2007
Total	9.1000e-004	4.2300e-003	9.7200e-003	3.0000e-005	2.9800e-003	4.0000e-005	3.0200e-003	7.9000e-004	4.0000e-005	8.4000e-004	0.0000	3.4168	3.4168	1.3000e-004	2.6000e-004	3.4961

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6800e-003	0.0000	1.6800e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.3075	0.2583	4.5000e-004		0.0155	0.0155		0.0145	0.0145	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421
Total	0.0313	0.3075	0.2583	4.5000e-004	1.6800e-003	0.0155	0.0172	2.5000e-004	0.0145	0.0147	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421

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	9.0000e-005	3.5400e-003	7.9000e-004	1.0000e-005	3.4000e-004	2.0000e-005	3.7000e-004	9.0000e-005	2.0000e-005	1.2000e-004	0.0000	1.2353	1.2353	7.0000e-005	2.0000e-004	1.2954
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	8.2000e-004	6.9000e-004	8.9300e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1815	2.1815	6.0000e-005	6.0000e-005	2.2007
Total	9.1000e-004	4.2300e-003	9.7200e-003	3.0000e-005	2.9800e-003	4.0000e-005	3.0200e-003	7.9000e-004	4.0000e-005	8.4000e-004	0.0000	3.4168	3.4168	1.3000e-004	2.6000e-004	3.4961

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1900e-003	0.0000	1.1900e-003	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0392	0.0251	6.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303
Total	3.4500e-003	0.0392	0.0251	6.0000e-005	1.1900e-003	1.4900e-003	2.6800e-003	1.3000e-004	1.3700e-003	1.5000e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303

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	7.0000e-005	2.6500e-003	5.9000e-004	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.9265	0.9265	5.0000e-005	1.5000e-004	0.9715
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	6.0000e-005	7.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1814	0.1814	1.0000e-005	0.0000	0.1830
Total	1.4000e-004	2.7100e-003	1.3300e-003	1.0000e-005	4.8000e-004	2.0000e-005	5.0000e-004	1.3000e-004	2.0000e-005	1.5000e-004	0.0000	1.1079	1.1079	6.0000e-005	1.5000e-004	1.1546

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2022****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					4.7000e-004	0.0000	4.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0392	0.0251	6.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303
Total	3.4500e-003	0.0392	0.0251	6.0000e-005	4.7000e-004	1.4900e-003	1.9600e-003	5.0000e-005	1.3700e-003	1.4200e-003	0.0000	5.3868	5.3868	1.7400e-003	0.0000	5.4303

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	7.0000e-005	2.6500e-003	5.9000e-004	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.9265	0.9265	5.0000e-005	1.5000e-004	0.9715
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	6.0000e-005	7.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1814	0.1814	1.0000e-005	0.0000	0.1830
Total	1.4000e-004	2.7100e-003	1.3300e-003	1.0000e-005	4.8000e-004	2.0000e-005	5.0000e-004	1.3000e-004	2.0000e-005	1.5000e-004	0.0000	1.1079	1.1079	6.0000e-005	1.5000e-004	1.1546

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0354	0.0000	0.0354	0.0171	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-003	0.0849	0.0461	1.0000e-004		3.7100e-003	3.7100e-003		3.4100e-003	3.4100e-003	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245
Total	7.7000e-003	0.0849	0.0461	1.0000e-004	0.0354	3.7100e-003	0.0391	0.0171	3.4100e-003	0.0205	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.8000e-003	8.5000e-004	1.0000e-005	3.7000e-004	3.0000e-005	4.0000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.3280	1.3280	7.0000e-005	2.1000e-004	1.3925
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.4000e-004	1.8600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4535	0.4535	1.0000e-005	1.0000e-005	0.4575
Total	2.7000e-004	3.9400e-003	2.7100e-003	1.0000e-005	9.2000e-004	3.0000e-005	9.5000e-004	2.5000e-004	3.0000e-005	2.8000e-004	0.0000	1.7815	1.7815	8.0000e-005	2.2000e-004	1.8501

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2022****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					0.0138	0.0000	0.0138	6.6800e-003	0.0000	6.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-003	0.0849	0.0461	1.0000e-004		3.7100e-003	3.7100e-003		3.4100e-003	3.4100e-003	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245
Total	7.7000e-003	0.0849	0.0461	1.0000e-004	0.0138	3.7100e-003	0.0175	6.6800e-003	3.4100e-003	0.0101	0.0000	9.0514	9.0514	2.9300e-003	0.0000	9.1245

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.8000e-003	8.5000e-004	1.0000e-005	3.7000e-004	3.0000e-005	4.0000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.3280	1.3280	7.0000e-005	2.1000e-004	1.3925
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.4000e-004	1.8600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4535	0.4535	1.0000e-005	1.0000e-005	0.4575
Total	2.7000e-004	3.9400e-003	2.7100e-003	1.0000e-005	9.2000e-004	3.0000e-005	9.5000e-004	2.5000e-004	3.0000e-005	2.8000e-004	0.0000	1.7815	1.7815	8.0000e-005	2.2000e-004	1.8501

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0121	0.0949	0.0933	1.6000e-004		4.5600e-003	4.5600e-003		4.3800e-003	4.3800e-003	0.0000	13.4992	13.4992	2.6000e-003	0.0000	13.5643
Total	0.0121	0.0949	0.0933	1.6000e-004		4.5600e-003	4.5600e-003		4.3800e-003	4.3800e-003	0.0000	13.4992	13.4992	2.6000e-003	0.0000	13.5643

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	1.8000e-004	4.6800e-003	1.5500e-003	2.0000e-005	5.7000e-004	4.0000e-005	6.2000e-004	1.7000e-004	4.0000e-005	2.1000e-004	0.0000	1.7377	1.7377	6.0000e-005	2.5000e-004	1.8139
Worker	1.3800e-003	1.1500e-003	0.0150	4.0000e-005	4.4200e-003	3.0000e-005	4.4400e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.6555	3.6555	1.0000e-004	1.0000e-004	3.6877
Total	1.5600e-003	5.8300e-003	0.0165	6.0000e-005	4.9900e-003	7.0000e-005	5.0600e-003	1.3400e-003	7.0000e-005	1.4100e-003	0.0000	5.3932	5.3932	1.6000e-004	3.5000e-004	5.5015

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2022****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	0.0121	0.0949	0.0933	1.6000e-004		4.5600e-003	4.5600e-003		4.3800e-003	4.3800e-003	0.0000	13.4992	13.4992	2.6000e-003	0.0000	13.5643
Total	0.0121	0.0949	0.0933	1.6000e-004		4.5600e-003	4.5600e-003		4.3800e-003	4.3800e-003	0.0000	13.4992	13.4992	2.6000e-003	0.0000	13.5643

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	1.8000e-004	4.6800e-003	1.5500e-003	2.0000e-005	5.7000e-004	4.0000e-005	6.2000e-004	1.7000e-004	4.0000e-005	2.1000e-004	0.0000	1.7377	1.7377	6.0000e-005	2.5000e-004	1.8139
Worker	1.3800e-003	1.1500e-003	0.0150	4.0000e-005	4.4200e-003	3.0000e-005	4.4400e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.6555	3.6555	1.0000e-004	1.0000e-004	3.6877
Total	1.5600e-003	5.8300e-003	0.0165	6.0000e-005	4.9900e-003	7.0000e-005	5.0600e-003	1.3400e-003	7.0000e-005	1.4100e-003	0.0000	5.3932	5.3932	1.6000e-004	3.5000e-004	5.5015

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2228	1.7711	1.8479	3.2500e-003		0.0798	0.0798		0.0764	0.0764	0.0000	270.0127	270.0127	0.0511	0.0000	271.2893
Total	0.2228	1.7711	1.8479	3.2500e-003		0.0798	0.0798		0.0764	0.0764	0.0000	270.0127	270.0127	0.0511	0.0000	271.2893

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	2.0600e-003	0.0734	0.0275	3.4000e-004	0.0115	3.5000e-004	0.0118	3.3100e-003	3.4000e-004	3.6500e-003	0.0000	33.0917	33.0917	1.1100e-003	4.7600e-003	34.5385
Worker	0.0256	0.0203	0.2754	7.7000e-004	0.0883	5.4000e-004	0.0889	0.0235	5.0000e-004	0.0240	0.0000	71.1840	71.1840	1.8700e-003	1.8300e-003	71.7761
Total	0.0277	0.0937	0.3028	1.1100e-003	0.0998	8.9000e-004	0.1007	0.0268	8.4000e-004	0.0276	0.0000	104.2757	104.2757	2.9800e-003	6.5900e-003	106.3146

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****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	0.2228	1.7711	1.8479	3.2500e-003		0.0798	0.0798		0.0764	0.0764	0.0000	270.0124	270.0124	0.0511	0.0000	271.2889
Total	0.2228	1.7711	1.8479	3.2500e-003		0.0798	0.0798		0.0764	0.0764	0.0000	270.0124	270.0124	0.0511	0.0000	271.2889

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	2.0600e-003	0.0734	0.0275	3.4000e-004	0.0115	3.5000e-004	0.0118	3.3100e-003	3.4000e-004	3.6500e-003	0.0000	33.0917	33.0917	1.1100e-003	4.7600e-003	34.5385
Worker	0.0256	0.0203	0.2754	7.7000e-004	0.0883	5.4000e-004	0.0889	0.0235	5.0000e-004	0.0240	0.0000	71.1840	71.1840	1.8700e-003	1.8300e-003	71.7761
Total	0.0277	0.0937	0.3028	1.1100e-003	0.0998	8.9000e-004	0.1007	0.0268	8.4000e-004	0.0276	0.0000	104.2757	104.2757	2.9800e-003	6.5900e-003	106.3146

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	0.9938	1.0928	1.9400e-003		0.0417	0.0417		0.0399	0.0399	0.0000	160.9783	160.9783	0.0300	0.0000	161.7279
Total	0.1238	0.9938	1.0928	1.9400e-003		0.0417	0.0417		0.0399	0.0399	0.0000	160.9783	160.9783	0.0300	0.0000	161.7279

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	1.1900e-003	0.0438	0.0160	2.0000e-004	6.8400e-003	2.1000e-004	7.0500e-003	1.9700e-003	2.0000e-004	2.1800e-003	0.0000	19.4317	19.4317	6.6000e-004	2.8000e-003	20.2824
Worker	0.0142	0.0108	0.1529	4.4000e-004	0.0527	3.1000e-004	0.0530	0.0140	2.9000e-004	0.0143	0.0000	41.5647	41.5647	1.0100e-003	1.0100e-003	41.8921
Total	0.0154	0.0546	0.1689	6.4000e-004	0.0595	5.2000e-004	0.0600	0.0160	4.9000e-004	0.0165	0.0000	60.9964	60.9964	1.6700e-003	3.8100e-003	62.1746

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****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	0.1238	0.9938	1.0928	1.9400e-003		0.0417	0.0417		0.0399	0.0399	0.0000	160.9781	160.9781	0.0300	0.0000	161.7277
Total	0.1238	0.9938	1.0928	1.9400e-003		0.0417	0.0417		0.0399	0.0399	0.0000	160.9781	160.9781	0.0300	0.0000	161.7277

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	1.1900e-003	0.0438	0.0160	2.0000e-004	6.8400e-003	2.1000e-004	7.0500e-003	1.9700e-003	2.0000e-004	2.1800e-003	0.0000	19.4317	19.4317	6.6000e-004	2.8000e-003	20.2824
Worker	0.0142	0.0108	0.1529	4.4000e-004	0.0527	3.1000e-004	0.0530	0.0140	2.9000e-004	0.0143	0.0000	41.5647	41.5647	1.0100e-003	1.0100e-003	41.8921
Total	0.0154	0.0546	0.1689	6.4000e-004	0.0595	5.2000e-004	0.0600	0.0160	4.9000e-004	0.0165	0.0000	60.9964	60.9964	1.6700e-003	3.8100e-003	62.1746

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8500e-003	0.0851	0.1229	1.9000e-004		4.1500e-003	4.1500e-003		3.8300e-003	3.8300e-003	0.0000	16.2904	16.2904	5.1600e-003	0.0000	16.4195
Paving	8.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.7100e-003	0.0851	0.1229	1.9000e-004		4.1500e-003	4.1500e-003		3.8300e-003	3.8300e-003	0.0000	16.2904	16.2904	5.1600e-003	0.0000	16.4195

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	4.7000e-004	3.5000e-004	5.0100e-003	1.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3624	1.3624	3.0000e-005	3.0000e-005	1.3732
Total	4.7000e-004	3.5000e-004	5.0100e-003	1.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3624	1.3624	3.0000e-005	3.0000e-005	1.3732

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2024****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	8.8500e-003	0.0851	0.1229	1.9000e-004		4.1500e-003	4.1500e-003		3.8300e-003	3.8300e-003	0.0000	16.2904	16.2904	5.1600e-003	0.0000	16.4195
Paving	8.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.7100e-003	0.0851	0.1229	1.9000e-004		4.1500e-003	4.1500e-003		3.8300e-003	3.8300e-003	0.0000	16.2904	16.2904	5.1600e-003	0.0000	16.4195

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	4.7000e-004	3.5000e-004	5.0100e-003	1.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3624	1.3624	3.0000e-005	3.0000e-005	1.3732
Total	4.7000e-004	3.5000e-004	5.0100e-003	1.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3624	1.3624	3.0000e-005	3.0000e-005	1.3732

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2028					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-003	0.0128	0.0190	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6847
Total	0.2047	0.0128	0.0190	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6847

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	3.7000e-004	2.8000e-004	4.0100e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0899	1.0899	3.0000e-005	3.0000e-005	1.0985
Total	3.7000e-004	2.8000e-004	4.0100e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0899	1.0899	3.0000e-005	3.0000e-005	1.0985

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2028					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-003	0.0128	0.0190	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6847
Total	0.2047	0.0128	0.0190	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6847

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	3.7000e-004	2.8000e-004	4.0100e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0899	1.0899	3.0000e-005	3.0000e-005	1.0985
Total	3.7000e-004	2.8000e-004	4.0100e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.7000e-004	0.0000	1.0899	1.0899	3.0000e-005	3.0000e-005	1.0985

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1842	0.1644	1.4601	2.6300e-003	0.2702	2.0900e-003	0.2723	0.0721	1.9400e-003	0.0740	0.0000	247.4702	247.4702	0.0222	0.0132	251.9478
Unmitigated	0.2547	0.2819	2.5522	5.4400e-003	0.5743	4.0300e-003	0.5784	0.1532	3.7400e-003	0.1570	0.0000	511.9580	511.9580	0.0358	0.0224	519.5412

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	320.96	320.96	320.96	1,096,769	515,969
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	199.70	199.70	199.70	431,915	203,192
Total	520.66	520.66	520.66	1,528,684	719,161

4.3 Trip Type Information

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Non-Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Regional Shopping Center	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	51.2340	51.2340	4.3200e-003	5.2000e-004	51.4983
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	52.5390	52.5390	4.4300e-003	5.4000e-004	52.8100
Natural Gas Mitigated	4.2000e-003	0.0360	0.0155	2.3000e-004		2.9000e-003	2.9000e-003		2.9000e-003	2.9000e-003	0.0000	41.5998	41.5998	8.0000e-004	7.6000e-004	41.8470
Natural Gas Unmitigated	4.2000e-003	0.0360	0.0155	2.3000e-004		2.9000e-003	2.9000e-003		2.9000e-003	2.9000e-003	0.0000	41.5998	41.5998	8.0000e-004	7.6000e-004	41.8470

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	770929	4.1600e-003	0.0355	0.0151	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1397	41.1397	7.9000e-004	7.5000e-004	41.3842
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	8622.7	5.0000e-005	4.2000e-004	3.6000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4601	0.4601	1.0000e-005	1.0000e-005	0.4629
Total		4.2100e-003	0.0359	0.0155	2.3000e-004		2.9000e-003	2.9000e-003		2.9000e-003	2.9000e-003	0.0000	41.5998	41.5998	8.0000e-004	7.6000e-004	41.8470

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	770929	4.1600e-003	0.0355	0.0151	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1397	41.1397	7.9000e-004	7.5000e-004	41.3842
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	8622.7	5.0000e-005	4.2000e-004	3.6000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4601	0.4601	1.0000e-005	1.0000e-005	0.4629
Total		4.2100e-003	0.0359	0.0155	2.3000e-004		2.9000e-003	2.9000e-003		2.9000e-003	2.9000e-003	0.0000	41.5998	41.5998	8.0000e-004	7.6000e-004	41.8470

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	227112	40.2772	3.4000e-003	4.1000e-004	40.4850
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	69140.3	12.2617	1.0300e-003	1.3000e-004	12.3250
Total		52.5390	4.4300e-003	5.4000e-004	52.8100

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	220848	39.1665	3.3100e-003	4.0000e-004	39.3685
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	68045.3	12.0675	1.0200e-003	1.2000e-004	12.1298
Total		51.2340	4.3300e-003	5.2000e-004	51.4983

6.0 Area Detail**6.1 Mitigation Measures Area**

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.2762	0.0180	0.6130	1.0000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	13.7453	13.7453	1.2000e-003	2.3000e-004	13.8450
Unmitigated	0.2762	0.0180	0.6130	1.0000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	13.7453	13.7453	1.2000e-003	2.3000e-004	13.8450

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	0.0215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2351					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2900e-003	0.0110	4.6900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7513	12.7513	2.4000e-004	2.3000e-004	12.8271
Landscaping	0.0183	7.0100e-003	0.6083	3.0000e-005		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	0.9940	0.9940	9.5000e-004	0.0000	1.0179
Total	0.2762	0.0180	0.6130	1.0000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	13.7453	13.7453	1.1900e-003	2.3000e-004	13.8450

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2351					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2900e-003	0.0110	4.6900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7513	12.7513	2.4000e-004	2.3000e-004	12.8271
Landscaping	0.0183	7.0100e-003	0.6083	3.0000e-005		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	0.9940	0.9940	9.5000e-004	0.0000	1.0179
Total	0.2762	0.0180	0.6130	1.0000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	13.7453	13.7453	1.1900e-003	2.3000e-004	13.8450

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.1486	0.1115	2.7400e-003	17.7536
Unmitigated	16.3737	0.1393	3.4100e-003	20.8731

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.84409 / 2.42345	14.8713	0.1264	3.1000e-003	18.9546
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.391844 / 0.240162	1.5024	0.0129	3.2000e-004	1.9185
Total		16.3737	0.1393	3.4200e-003	20.8731

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.07527 / 2.42345	12.8520	0.1012	2.4900e-003	16.1236
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.313475 / 0.240162	1.2965	0.0103	2.5000e-004	1.6299
Total		14.1486	0.1115	2.7400e-003	17.7536

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.6589	0.0980	0.0000	4.1100
Unmitigated	6.6358	0.3922	0.0000	16.4399

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	27.14	5.5092	0.3256	0.0000	13.6488
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	5.55	1.1266	0.0666	0.0000	2.7911
Total		6.6358	0.3922	0.0000	16.4399

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	6.785	1.3773	0.0814	0.0000	3.4122
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.3875	0.2817	0.0167	0.0000	0.6978
Total		1.6589	0.0981	0.0000	4.1100

9.0 Operational Offroad

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

Artesia Residential Development - PROJECT - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number
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11.0 Vegetation

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Artesia Residential Development - REMAINDER SPECIFIC PLAN****Los Angeles-South Coast County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	40.00	Dwelling Unit	0.79	40,000.00	114
Regional Shopping Center	34.19	1000sqft	0.78	34,190.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - RMNDR SP AREA - 1.57 ac w/ up to 40 DU & 34.19 TSF commercial uses.

Construction Phase - Construction unknown at this time. Assumed no overlap with project (start date of Oct 2, 2024 - soonest start date, conservative).
CalEEMod default timing utilized other than architectural coating.

Trips and VMT - ~0.98 ac (42,689 sf) site prep to remove existing asphalt surfaces. 42,689x0.3in=12,807cfx45lbs=576,302lbs=~288tons. Assumed ~14 haul trucks during site prep.

Demolition - Up to ~13,922 sf demo (all existing bldgs on remainder SP area, estimated through applicant provided info & GE).

Grading - Assumed site balanced. ~0.98 ac of potential existing asphalt paving removal (i.e., existing parking lots/driveways etc.) during site prep.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50g/L VOC for buildings & 100g/L VOC for parking lot striping.

Vehicle Trips - - Per trip gen, 5.44 trips/DU for MF & 37.75 trips/TSF for commercial uses.

Woodstoves - SCAQMD Rule 445 prohibits installation of wood burning devices in new developments.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mobile Land Use Mitigation - Site is ~0.05 miles NW of Metro Rte 62 stop Pioneer/168th & ~0.88 miles N of downtown portion of Artesia. Sidewalks provided on/off-site. Up to 95du/ac for SP. LUT-3- mixed use res/comm.

Energy Mitigation - Energy efficient appliances.

Water Mitigation - Per CalGreen Stanards, 20% indoor water reduction. Water-efficient irrigation systems.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.05	0.79
tblTripsAndVMT	HaulingTripNumber	0.00	14.00

2.0 Emissions Summary

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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					
2024	0.0489	0.4094	0.4371	8.7000e-004	0.0395	0.0169	0.0563	0.0142	0.0160	0.0302	0.0000	75.4579	75.4579	0.0133	1.0500e-003	76.1050
2025	0.4041	0.9097	1.1647	2.3000e-003	0.0415	0.0335	0.0750	0.0111	0.0322	0.0434	0.0000	195.5959	195.5959	0.0269	2.7000e-003	197.0726
Maximum	0.4041	0.9097	1.1647	2.3000e-003	0.0415	0.0335	0.0750	0.0142	0.0322	0.0434	0.0000	195.5959	195.5959	0.0269	2.7000e-003	197.0726

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0489	0.4094	0.4371	8.7000e-004	0.0228	0.0169	0.0397	7.5100e-003	0.0160	0.0235	0.0000	75.4578	75.4578	0.0133	1.0500e-003	76.1049
2025	0.4041	0.9097	1.1647	2.3000e-003	0.0415	0.0335	0.0750	0.0111	0.0322	0.0434	0.0000	195.5957	195.5957	0.0269	2.7000e-003	197.0725
Maximum	0.4041	0.9097	1.1647	2.3000e-003	0.0415	0.0335	0.0750	0.0111	0.0322	0.0434	0.0000	195.5957	195.5957	0.0269	2.7000e-003	197.0725

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	20.55	0.00	12.68	26.28	0.00	9.03	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-2-2024	1-1-2025	0.4628	0.4628
2	1-2-2025	4-1-2025	0.3969	0.3969
3	4-2-2025	7-1-2025	0.4002	0.4002
4	7-2-2025	9-30-2025	0.5093	0.5093
		Highest	0.5093	0.5093

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4399	0.0151	0.6668	6.7000e-004		0.0405	0.0405		0.0405	0.0405	4.2488	8.8393	13.0881	0.0133	2.9000e-004	13.5070
Energy	3.1200e-003	0.0268	0.0125	1.7000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	137.4211	137.4211	9.5900e-003	1.6600e-003	138.1542
Mobile	0.6158	0.6299	5.7410	0.0118	1.2816	8.9000e-003	1.2905	0.3419	8.2700e-003	0.3502	0.0000	1,122.6581	1,122.6581	0.0827	0.0510	1,139.9309
Waste						0.0000	0.0000		0.0000	0.0000	11.0224	0.0000	11.0224	0.6514	0.0000	27.3076
Water						0.0000	0.0000		0.0000	0.0000	1.6303	18.1619	19.7922	0.1690	4.1400e-003	25.2502
Total	1.0588	0.6718	6.4203	0.0127	1.2816	0.0515	1.3331	0.3419	0.0509	0.3928	16.9014	1,287.0804	1,303.9819	0.9260	0.0571	1,344.1498

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4399	0.0151	0.6668	6.7000e-004		0.0405	0.0405		0.0405	0.0405	4.2488	8.8393	13.0881	0.0133	2.9000e-004	13.5070
Energy	3.1200e-003	0.0268	0.0125	1.7000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	135.4129	135.4129	9.4200e-003	1.6400e-003	136.1357
Mobile	0.4232	0.3215	2.8393	4.3000e-003	0.4402	3.7100e-003	0.4439	0.1174	3.4400e-003	0.1209	0.0000	408.0158	408.0158	0.0456	0.0261	416.9445
Waste						0.0000	0.0000		0.0000	0.0000	2.7556	0.0000	2.7556	0.1629	0.0000	6.8269
Water						0.0000	0.0000		0.0000	0.0000	1.3042	15.7887	17.0929	0.1353	3.3200e-003	21.4658
Total	0.8662	0.3635	3.5187	5.1400e-003	0.4402	0.0463	0.4865	0.1174	0.0461	0.1635	8.3086	568.0566	576.3652	0.3665	0.0314	594.8798

	ROG	NOx	CO	SO2	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	18.19	45.90	45.19	59.43	65.65	10.07	63.51	65.65	9.49	58.38	50.84	55.86	55.80	60.42	45.05	55.74

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/2/2024	10/29/2024	5	20	
2	Site Preparation	Site Preparation	10/30/2024	10/31/2024	5	2	
3	Grading	Grading	11/1/2024	11/6/2024	5	4	

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	11/7/2024	8/13/2025	5	200
5	Paving	Paving	8/14/2025	8/27/2025	5	10
6	Architectural Coating	Architectural Coating	8/28/2025	9/10/2025	5	10

Acres of Grading (Site Preparation Phase): 1.88**Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 81,000; Residential Outdoor: 27,000; Non-Residential Indoor: 51,285; Non-Residential Outdoor: 17,095; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	63.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	14.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.8500e-003	0.0000	6.8500e-003	1.0400e-003	0.0000	1.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1389	0.1349	2.4000e-004		6.3100e-003	6.3100e-003		5.8900e-003	5.8900e-003	0.0000	21.0916	21.0916	5.3400e-003	0.0000	21.2250
Total	0.0144	0.1389	0.1349	2.4000e-004	6.8500e-003	6.3100e-003	0.0132	1.0400e-003	5.8900e-003	6.9300e-003	0.0000	21.0916	21.0916	5.3400e-003	0.0000	21.2250

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	7.0000e-005	4.3400e-003	1.1200e-003	2.0000e-005	5.4000e-004	3.0000e-005	5.7000e-004	1.5000e-004	3.0000e-005	1.7000e-004	0.0000	1.8113	1.8113	1.0000e-004	2.9000e-004	1.8996
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	3.9000e-004	2.9000e-004	4.1400e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1245	1.1245	3.0000e-005	3.0000e-005	1.1334
Total	4.6000e-004	4.6300e-003	5.2600e-003	3.0000e-005	1.9600e-003	4.0000e-005	2.0000e-003	5.3000e-004	4.0000e-005	5.6000e-004	0.0000	2.9358	2.9358	1.3000e-004	3.2000e-004	3.0330

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6700e-003	0.0000	2.6700e-003	4.0000e-004	0.0000	4.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1389	0.1349	2.4000e-004		6.3100e-003	6.3100e-003		5.8900e-003	5.8900e-003	0.0000	21.0915	21.0915	5.3400e-003	0.0000	21.2250
Total	0.0144	0.1389	0.1349	2.4000e-004	2.6700e-003	6.3100e-003	8.9800e-003	4.0000e-004	5.8900e-003	6.2900e-003	0.0000	21.0915	21.0915	5.3400e-003	0.0000	21.2250

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	7.0000e-005	4.3400e-003	1.1200e-003	2.0000e-005	5.4000e-004	3.0000e-005	5.7000e-004	1.5000e-004	3.0000e-005	1.7000e-004	0.0000	1.8113	1.8113	1.0000e-004	2.9000e-004	1.8996
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	3.9000e-004	2.9000e-004	4.1400e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1245	1.1245	3.0000e-005	3.0000e-005	1.1334
Total	4.6000e-004	4.6300e-003	5.2600e-003	3.0000e-005	1.9600e-003	4.0000e-005	2.0000e-003	5.3000e-004	4.0000e-005	5.6000e-004	0.0000	2.9358	2.9358	1.3000e-004	3.2000e-004	3.0330

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	1.1100e-003	0.0118	6.6300e-003	2.0000e-005	6.2700e-003	4.8000e-004	6.7500e-003	3.0000e-003	4.4000e-004	3.4400e-003	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	9.7000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4025	0.4025	2.0000e-005	6.0000e-005	0.4221
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	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0692	0.0692	0.0000	0.0000	0.0698
Total	3.0000e-005	9.9000e-004	5.0000e-004	0.0000	2.1000e-004	1.0000e-005	2.2000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4717	0.4717	2.0000e-005	6.0000e-005	0.4919

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4400e-003	0.0000	2.4400e-003	1.1700e-003	0.0000	1.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	1.1100e-003	0.0118	6.6300e-003	2.0000e-005	2.4400e-003	4.8000e-004	2.9200e-003	1.1700e-003	4.4000e-004	1.6100e-003	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	9.7000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4025	0.4025	2.0000e-005	6.0000e-005	0.4221
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	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0692	0.0692	0.0000	0.0000	0.0698
Total	3.0000e-005	9.9000e-004	5.0000e-004	0.0000	2.1000e-004	1.0000e-005	2.2000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4717	0.4717	2.0000e-005	6.0000e-005	0.4919

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	2.6000e-003	0.0276	0.0174	4.0000e-005	0.0142	1.1400e-003	0.0153	6.8500e-003	1.0500e-003	7.9000e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500

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	6.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1730	0.1730	0.0000	0.0000	0.1744
Total	6.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1730	0.1730	0.0000	0.0000	0.1744

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****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					5.5200e-003	0.0000	5.5200e-003	2.6700e-003	0.0000	2.6700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	2.6000e-003	0.0276	0.0174	4.0000e-005	5.5200e-003	1.1400e-003	6.6600e-003	2.6700e-003	1.0500e-003	3.7200e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500

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	6.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1730	0.1730	0.0000	0.0000	0.1744
Total	6.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1730	0.1730	0.0000	0.0000	0.1744

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0277	0.2158	0.2441	4.3000e-004		8.7900e-003	8.7900e-003		8.4800e-003	8.4800e-003	0.0000	35.4142	35.4142	5.9000e-003	0.0000	35.5616
Total	0.0277	0.2158	0.2441	4.3000e-004		8.7900e-003	8.7900e-003		8.4800e-003	8.4800e-003	0.0000	35.4142	35.4142	5.9000e-003	0.0000	35.5616

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	2.1000e-004	7.8700e-003	2.8800e-003	4.0000e-005	1.2300e-003	4.0000e-005	1.2700e-003	3.5000e-004	4.0000e-005	3.9000e-004	0.0000	3.4923	3.4923	1.2000e-004	5.0000e-004	3.6452
Worker	2.3100e-003	1.7600e-003	0.0248	7.0000e-005	8.5500e-003	5.0000e-005	8.6000e-003	2.2700e-003	5.0000e-005	2.3200e-003	0.0000	6.7472	6.7472	1.6000e-004	1.6000e-004	6.8004
Total	2.5200e-003	9.6300e-003	0.0277	1.1000e-004	9.7800e-003	9.0000e-005	9.8700e-003	2.6200e-003	9.0000e-005	2.7100e-003	0.0000	10.2396	10.2396	2.8000e-004	6.6000e-004	10.4456

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****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	0.0277	0.2157	0.2441	4.3000e-004		8.7900e-003	8.7900e-003		8.4800e-003	8.4800e-003	0.0000	35.4142	35.4142	5.9000e-003	0.0000	35.5616
Total	0.0277	0.2157	0.2441	4.3000e-004		8.7900e-003	8.7900e-003		8.4800e-003	8.4800e-003	0.0000	35.4142	35.4142	5.9000e-003	0.0000	35.5616

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	2.1000e-004	7.8700e-003	2.8800e-003	4.0000e-005	1.2300e-003	4.0000e-005	1.2700e-003	3.5000e-004	4.0000e-005	3.9000e-004	0.0000	3.4923	3.4923	1.2000e-004	5.0000e-004	3.6452
Worker	2.3100e-003	1.7600e-003	0.0248	7.0000e-005	8.5500e-003	5.0000e-005	8.6000e-003	2.2700e-003	5.0000e-005	2.3200e-003	0.0000	6.7472	6.7472	1.6000e-004	1.6000e-004	6.8004
Total	2.5200e-003	9.6300e-003	0.0277	1.1000e-004	9.7800e-003	9.0000e-005	9.8700e-003	2.6200e-003	9.0000e-005	2.7100e-003	0.0000	10.2396	10.2396	2.8000e-004	6.6000e-004	10.4456

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1066	0.8382	1.0014	1.7800e-003		0.0316	0.0316		0.0305	0.0305	0.0000	146.2139	146.2139	0.0239	0.0000	146.8108
Total	0.1066	0.8382	1.0014	1.7800e-003		0.0316	0.0316		0.0305	0.0305	0.0000	146.2139	146.2139	0.0239	0.0000	146.8108

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	8.6000e-004	0.0324	0.0117	1.4000e-004	5.0700e-003	1.6000e-004	5.2300e-003	1.4600e-003	1.5000e-004	1.6100e-003	0.0000	14.1577	14.1577	4.9000e-004	2.0400e-003	14.7782
Worker	8.9300e-003	6.5100e-003	0.0956	2.9000e-004	0.0353	2.0000e-004	0.0355	9.3700e-003	1.8000e-004	9.5500e-003	0.0000	27.1748	27.1748	6.1000e-004	6.3000e-004	27.3791
Total	9.7900e-003	0.0389	0.1072	4.3000e-004	0.0404	3.6000e-004	0.0407	0.0108	3.3000e-004	0.0112	0.0000	41.3325	41.3325	1.1000e-003	2.6700e-003	42.1573

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****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	0.1066	0.8382	1.0014	1.7800e-003		0.0316	0.0316		0.0305	0.0305	0.0000	146.2138	146.2138	0.0239	0.0000	146.8106
Total	0.1066	0.8382	1.0014	1.7800e-003		0.0316	0.0316		0.0305	0.0305	0.0000	146.2138	146.2138	0.0239	0.0000	146.8106

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	8.6000e-004	0.0324	0.0117	1.4000e-004	5.0700e-003	1.6000e-004	5.2300e-003	1.4600e-003	1.5000e-004	1.6100e-003	0.0000	14.1577	14.1577	4.9000e-004	2.0400e-003	14.7782
Worker	8.9300e-003	6.5100e-003	0.0956	2.9000e-004	0.0353	2.0000e-004	0.0355	9.3700e-003	1.8000e-004	9.5500e-003	0.0000	27.1748	27.1748	6.1000e-004	6.3000e-004	27.3791
Total	9.7900e-003	0.0389	0.1072	4.3000e-004	0.0404	3.6000e-004	0.0407	0.0108	3.3000e-004	0.0112	0.0000	41.3325	41.3325	1.1000e-003	2.6700e-003	42.1573

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.9300e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5486	0.5486	1.0000e-005	1.0000e-005	0.5527
Total	1.8000e-004	1.3000e-004	1.9300e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5486	0.5486	1.0000e-005	1.0000e-005	0.5527

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.9300e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5486	0.5486	1.0000e-005	1.0000e-005	0.5527
Total	1.8000e-004	1.3000e-004	1.9300e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5486	0.5486	1.0000e-005	1.0000e-005	0.5527

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 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	0.2836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.2845	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	1.1900e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3376	0.3376	1.0000e-005	1.0000e-005	0.3401
Total	1.1000e-004	8.0000e-005	1.1900e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3376	0.3376	1.0000e-005	1.0000e-005	0.3401

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.2845	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	1.1900e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3376	0.3376	1.0000e-005	1.0000e-005	0.3401
Total	1.1000e-004	8.0000e-005	1.1900e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3376	0.3376	1.0000e-005	1.0000e-005	0.3401

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.4232	0.3215	2.8393	4.3000e-003	0.4402	3.7100e-003	0.4439	0.1174	3.4400e-003	0.1209	0.0000	408.0158	408.0158	0.0456	0.0261	416.9445
Unmitigated	0.6158	0.6299	5.7410	0.0118	1.2816	8.9000e-003	1.2905	0.3419	8.2700e-003	0.3502	0.0000	1,122.6581	1,122.6581	0.0827	0.0510	1,139.9309

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartment Mid Rise	217.60	196.40	163.60	706,862	242,772
Regional Shopping Center	1,290.67	1,576.84	721.41	2,704,054	928,708
Total	1,508.27	1,773.24	885.01	3,410,916	1,171,481

4.3 Trip Type Information

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Regional Shopping Center	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	104.5476	104.5476	8.8200e-003	1.0700e-003	105.0870
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	106.5558	106.5558	8.9900e-003	1.0900e-003	107.1055
NaturalGas Mitigated	3.1200e-003	0.0268	0.0125	1.7000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	30.8653	30.8653	5.9000e-004	5.7000e-004	31.0487
NaturalGas Unmitigated	3.1200e-003	0.0268	0.0125	1.7000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	30.8653	30.8653	5.9000e-004	5.7000e-004	31.0487

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	522664	2.8200e-003	0.0241	0.0103	1.5000e-004		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	27.8913	27.8913	5.3000e-004	5.1000e-004	28.0571
Regional Shopping Center	55729.7	3.0000e-004	2.7300e-003	2.2900e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9740	2.9740	6.0000e-005	5.0000e-005	2.9916
Total		3.1200e-003	0.0268	0.0125	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	30.8653	30.8653	5.9000e-004	5.6000e-004	31.0487

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	522664	2.8200e-003	0.0241	0.0103	1.5000e-004		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	27.8913	27.8913	5.3000e-004	5.1000e-004	28.0571
Regional Shopping Center	55729.7	3.0000e-004	2.7300e-003	2.2900e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9740	2.9740	6.0000e-005	5.0000e-005	2.9916
Total		3.1200e-003	0.0268	0.0125	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	30.8653	30.8653	5.9000e-004	5.6000e-004	31.0487

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	153974	27.3066	2.3000e-003	2.8000e-004	27.4475
Regional Shopping Center	446863	79.2492	6.6900e-003	8.1000e-004	79.6581
Total		106.5558	8.9900e-003	1.0900e-003	107.1055

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	149728	26.5535	2.2400e-003	2.7000e-004	26.6905
Regional Shopping Center	439786	77.9941	6.5800e-003	8.0000e-004	78.3964
Total		104.5476	8.8200e-003	1.0700e-003	105.0870

6.0 Area Detail

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	0.4399	0.0151	0.6668	6.7000e-004		0.0405	0.0405		0.0405	0.0405	4.2488	8.8393	13.0881	0.0133	2.9000e-004	13.5070
Unmitigated	0.4399	0.0151	0.6668	6.7000e-004		0.0405	0.0405		0.0405	0.0405	4.2488	8.8393	13.0881	0.0133	2.9000e-004	13.5070

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1310	0.0104	0.2543	6.5000e-004		0.0382	0.0382		0.0382	0.0382	4.2488	8.1647	12.4134	0.0127	2.9000e-004	12.8161
Landscaping	0.0124	4.7500e-003	0.4126	2.0000e-005		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	0.6747	0.6747	6.5000e-004	0.0000	0.6909
Total	0.4399	0.0151	0.6668	6.7000e-004		0.0405	0.0405		0.0405	0.0405	4.2488	8.8393	13.0881	0.0133	2.9000e-004	13.5070

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1310	0.0104	0.2543	6.5000e-004		0.0382	0.0382		0.0382	0.0382	4.2488	8.1647	12.4134	0.0127	2.9000e-004	12.8161
Landscaping	0.0124	4.7500e-003	0.4126	2.0000e-005		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	0.6747	0.6747	6.5000e-004	0.0000	0.6909
Total	0.4399	0.0151	0.6668	6.7000e-004		0.0405	0.0405		0.0405	0.0405	4.2488	8.8393	13.0881	0.0133	2.9000e-004	13.5070

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.0929	0.1353	3.3200e-003	21.4658
Unmitigated	19.7922	0.1690	4.1400e-003	25.2502

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.60616 / 1.64301	10.0823	0.0857	2.1000e-003	12.8506
Regional Shopping Center	2.53254 / 1.5522	9.7100	0.0833	2.0400e-003	12.3996
Total		19.7922	0.1690	4.1400e-003	25.2502

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.08493 / 1.64301	8.7133	0.0686	1.6900e-003	10.9313
Regional Shopping Center	2.02603 / 1.5522	8.3796	0.0667	1.6400e-003	10.5345
Total		17.0929	0.1353	3.3300e-003	21.4658

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.7556	0.1629	0.0000	6.8269
Unmitigated	11.0224	0.6514	0.0000	27.3076

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	18.4	3.7350	0.2207	0.0000	9.2534
Regional Shopping Center	35.9	7.2874	0.4307	0.0000	18.0542
Total		11.0224	0.6514	0.0000	27.3076

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	4.6	0.9338	0.0552	0.0000	2.3134
Regional Shopping Center	8.975	1.8218	0.1077	0.0000	4.5135
Total		2.7556	0.1629	0.0000	6.8269

9.0 Operational Offroad

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

Artesia Residential Development - REMAINDER SPECIFIC PLAN - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied
