1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT AIR QUALITY & GREENHOUSE GAS (GHG) IMPACT ANALYSIS

City of Claremont

Prepared for

THE OLSON COMPANY

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GLOSSARY

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO2	Nitrogen dioxide
N2O	Nitrous oxide
O3	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	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
SF6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 INTRODUCTION & PROJECT DECSRIPTION

1.1 Purpose of Report & Study Objectives

This air quality, greenhouse gas (GHG), and energy analysis was prepared to evaluate whether the estimated criteria pollutants and GHG emissions generated from the proposed 1030 West Foothill Boulevard Residential Project (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 Site Location & Project Description

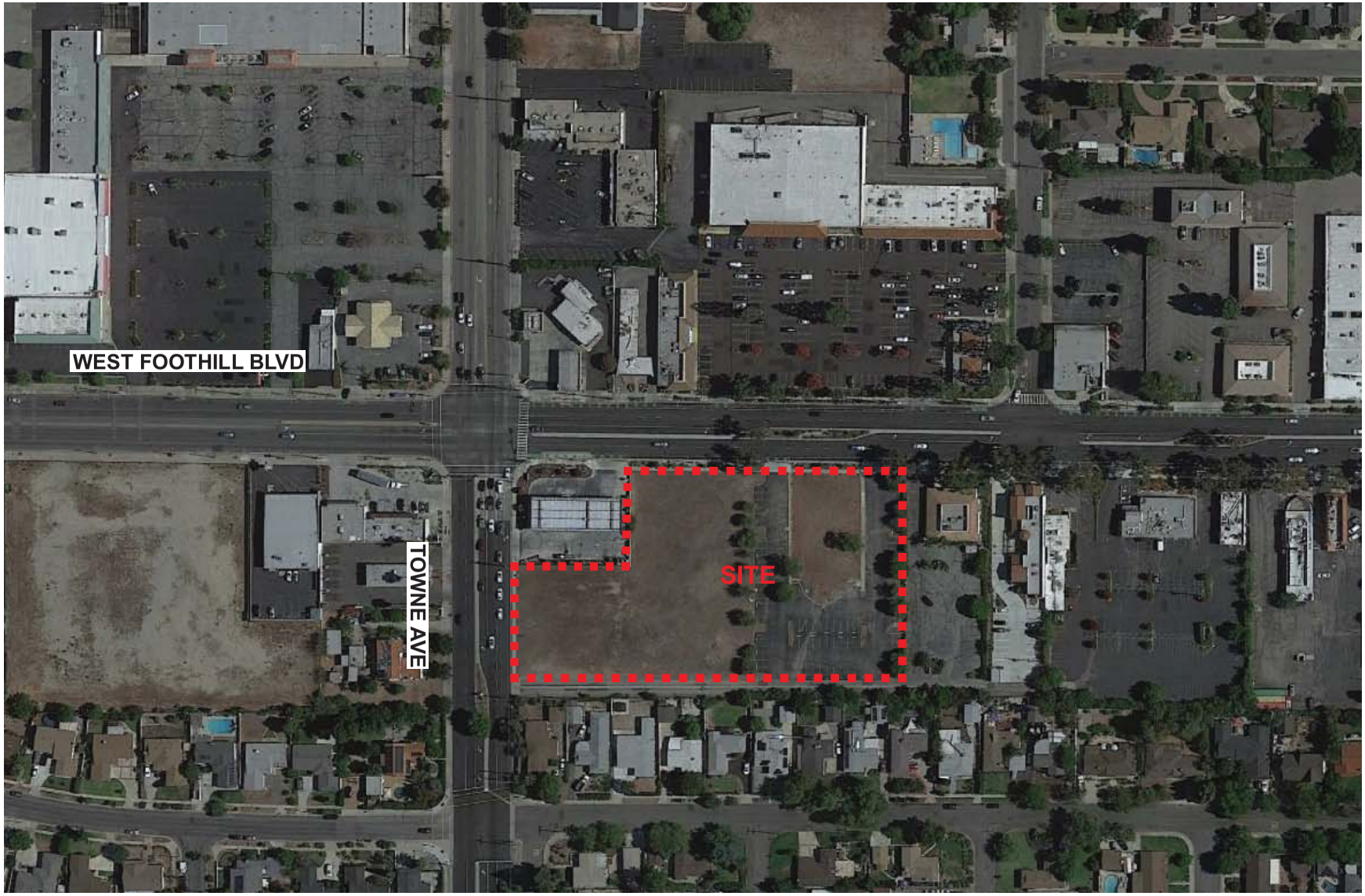
The project site located at 1030 West Foothill Boulevard, in the City of Claremont and is partially vacant and consists of approximately 40,000 square feet of existing asphalt surface parking lot. The proposed project consists of construction and operation of 56 dwelling units of residential condominium units.

Exhibit A shows the project site location. Exhibit B shows the proposed site plan.

1.3 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 receptors (to the site area) are residential uses located along Amador Street, adjacent to the south of the project site, across alley way and residential uses located across Towne Avenue, approximately 120 feet away to the west of the project site.



Not to Scale

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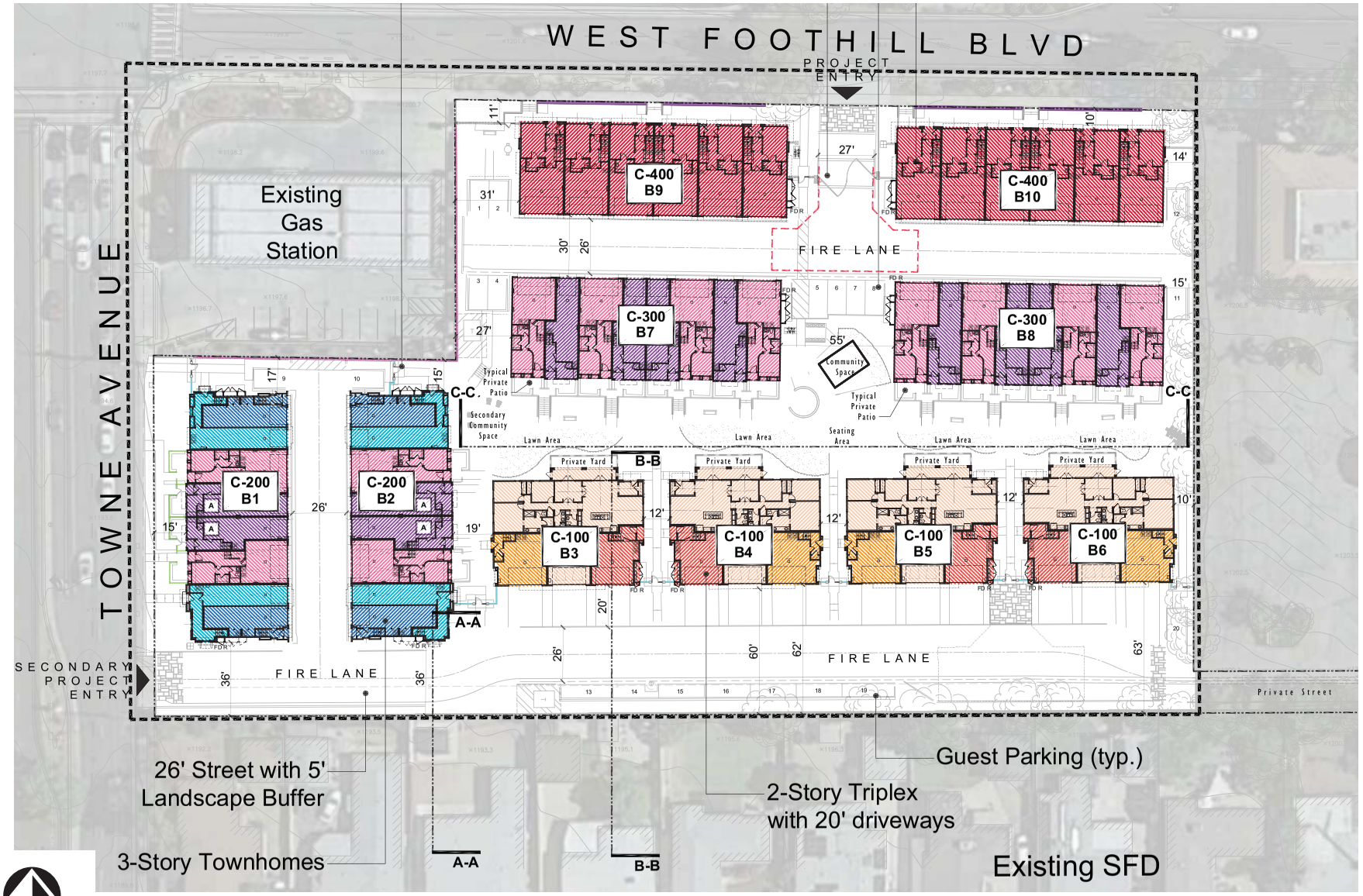
1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT, City of Claremont, California / 0012-2022-01 JUL/2022

Site Location

Exhibit A



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Site Plan

Exhibit B

2.0 ATMOSPHERIC SETTINGS

2.1 Existing Physical Setting

The project site is located in the City of Claremont which is part of the South Coast Air Basin (SCAB) that includes all of Los Angeles, Orange, 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.

2.2 Local Climate & Methodology

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. 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.

Summers are often periods of hazy visibility and occasionally unhealthful 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 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. The temperature and precipitation levels for the Claremont Pomona College Station (041779), the closest monitoring station to the project site, are in Table 1.

Table 1
Regional Climatological Data

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	63.7	65.7	67.8	71.6	75.6	82.9	90.4	90.3	87.1	79.8	72.9	65.8	76.1
Average Min. Temperature (F)	38.6	40.5	42.1	44.9	48.6	52.5	57.3	57.7	55.6	50.2	44	39.8	47.7
Average Total Precipitation (in.)	3.48	3.4	2.89	1.32	0.5	0.06	0.03	0.11	0.28	0.72	1.44	2.72	16.95

1=Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1779, Claremont Pomona Col, CA (041779)

3.0 AIR QUALITY SETTING

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

3.1 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and State governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O3), course particulate matter (PM10), and fine particulate matter (PM2.5) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO2), and sulfur dioxide (SO2) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2.

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction.

Pollutants	Sources	Primary Effects
		• Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardiorespiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

3.2 Other Pollutants of Concern

3.2.1 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is

believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

According to CARB's California Almanac of Emissions and Air Quality (2005), the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being PM from diesel-fueled engines (DPM). DPM has been identified as a human carcinogen and contains hundreds of different gaseous and particulate components, many of which are toxic. Diesel particles are so small that they penetrate deep into the lungs. Studies show that DPM concentrations are much higher near heavily traveled highways and intersections. Off-road construction equipment and heavy-duty trucks are considered major sources of diesel-related emissions.

3.2.2 Asbestos

Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Los Angeles County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located in Santa Barbara County. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

3.3 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 3 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 3
Greenhouse Gasses

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N_20), also known as laughing gas is a colorless gas.	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_20.
Methane	Methane (CH_4) is a flammable gas and is the main component of natural gas.	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.

Greenhouse Gas	Description and Physical Properties	Sources
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.	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.	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.	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	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.

Source: https://www.ipcc.ch/report/ar5/syr/

3.3.1 Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO2). The larger the GWP, the more that a given gas warms the Earth compared to CO2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases.

A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 4.

Table 4
Global Warming Potential of Greenhouse Gases

Gas Name (Formula)	Atmospheric Lifetime (years)	GWP[1]
Carbon Dioxide (CO_2)	--	1
Methane (CH_4)	12	28-36
Nitrous Oxide (N_2O)	114	265
Hydrofluorocarbons (HFCs)	1-270	12-12,400
Sulphur Hexafluoride (SF_6)	3,200	23,500
Nitrogen Trifluoride (NF_3)	740	16,100

Source: IPCC Fifth Assessment Report (AR5)
https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf
1 = Global Warming Potential. Compared to the same quantity of CO_2 emissions.

3.4 Ambient 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 project site is located in San Gabriel Valley General Forecast Area and Pamona/Walnut Valley Air Monitoring Area (Source Receptor Area (SRA) 10); and the ambient air quality data was utilized from the Pamona/Walnut and for data not available at SRA 10, ambient air quality data from East San Gabriel Valley Air Monitoring area station is utilized. Table 5 presents the monitored pollutant levels within the vicinity.

Table 5
Ambient Air Quality Monitoring Data

Air Pollutant Location	Monitoring Station	Item	2018	2019	2020
Carbon Monoxide	Pomona/Walnut Valley	Max 1-Hour (ppm)	2.1	1.7	1.5
		Exceeded State Standard (20 ppm)	No	No	No
		Exceeded National Standard (35 ppm)	No	No	No
		Max 8 Hour (ppm)	1.8	1.3	1.1
		Days > State Standard (9 ppm)	No	No	No
		Days >National Standard (9 ppm)	No	No	No
Ozone	Pomona/Walnut Valley	Maximum 1-Hour Concentration (ppm)	0.112	0.096	0.180
		Days > CAAQS (0.09 ppm)	7.0	1.0	51.0
		Maximum 8-Hour Concentration (ppm)	0.092	0.083	0.124
		Days > CAAQS/NAAQS (0.07 ppm)	10	12	84
Nitrogen Dioxide	Pomona/Walnut Valley	Max 1-Hour (ppm)	0.068	0.064	0.068
		Exceeded State Standard (0.18 ppm)	No	No	No
		Annual Average (ppm)	0.019	0.018	0.018
		Exceeded State Standard (0.030 ppm)	No	No	No
		Exceeded National Standard (0.053 ppm)	No	No	No
Sulfur Dioxide	Pomona/Walnut Valley	Max 1 Hour (ppm)	--	--	--
		Exceeded State Standard (0.25 ppm)	--	--	--
		Exceeded National Standard (0.075 ppm)	--	--	--
Inhalable Particulates (PM10)	East San Gabriel Valley 1	Max 24-Hour (µg/m³)	78	82	95
		Days > State Standard (50 µg/m³)	10	4	8
		Days >National Standard (150 µg/m³)	0	0	0
		Annual Average (µg/m³)	32.20	28.10	37.70
		Exceeded State Standard (20 µg/m³)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5)	East San Gabriel Valley 1	Max 24-Hour (µg/m³)	30.20	28.30	33.00
		Days >National Standard (35 µg/m³)	0	0	0
		Annual Average (µg/m³)	10.35	9.18	11.13
		Exceeded State Standard (12 µg/m³)	No	No	No
		Exceeded National Standard (15 µg/m³)	No	No	No

Source: http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year
(--) =No data available.

3.5 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 PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard.

Table 6 lists the attainment status for the criteria pollutants in the basin.

Table 6
Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Maintenance (Serious)
Nitrogen dioxide	Attainment	Maintenance (Primary)
Sulfur dioxide	Attainment	Attainment/Unclassified
PM10	Nonattainment	Maintenance (Serious)
PM2.5	Nonattainment	Nonattainment (Moderate)

Source (Federal and State Status): California Air Resources Board (2020).
https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

4.0 AIR QUALITY STANDARDS

4.1 Air Quality Regulatory Standards

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.

4.1.1 Ambient Air Quality Standards (AAQS)

In order to gauge the significance of the air quality impacts of the proposed Project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard. National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S.

Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

The federal and state ambient air quality standards are summarized in Table 7 and can also be found at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Table 7
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/m^3)		
Respirable Particulate Matter (PM10)[8]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µ/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		- -		
Fine Particulate Matter (PM2.5)[8]	24-Hour	- -	- -	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m^3)	- -	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m^3)		9 ppm (10 µg/m^3)	- -	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m^3)		- -	- -	
Nitrogen Dioxide (NO2)[9]	1-Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	- -	Gas Phase Chemiluminescence

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentrations[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
	Annual Arithmetic Mean	0.030 ppm (357 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO2)[10]	1-Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	- -	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	- -		- -	0.5 ppm (1300 mg/m^3)	
	24-Hour	0.04 ppm (105 µg/m^3)		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/m^3	Atomic Absorption	- -		
	Calendar Qrtr	- -		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	- -		0.15 µg/m^3		
Visibility Reducing Particles[13]	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

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

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

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

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

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

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

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

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

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 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

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 7 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.

4.1.2 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 this Air Quality Management Plan 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

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. These strategies are to be implemented in partnership with the California Air Resources Board (CARB) and U.S. EPA. In addition, the Southern California Association of Governments (SCAG) recently approved their 2016 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) that include transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained within baseline emissions inventory in the Plan. The on-road emissions are calculated using CARB's EMFAC 2014 model and the travel activity data provided by the Southern California Association of Governments (SCAG) from their adopted 2016 Regional

Transportation Plan / Sustainable Communities Strategy (RTP/SCS). The 2016 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.[1]

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 two times daily.

- Cover all trucks hauling dirt, san, 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.

[1] http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15

- 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.

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

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.

4.2 Greenhouse Gas Regulatory Settings

4.2.1 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.

4.2.2 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.

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. https://www.epa.gov/arc-x/planning-climate-change-adaptation

4.2.3 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 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 and 2016 standards have been approved and became effective July 1, 2014 and January 1, 2016, respectively. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

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, 2022 must follow the 2022 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions

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.

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. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. 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 year2020. "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 (California Air Resources Board 2008). 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. On September 3, 2020, the Southern California Association of Governments (SCAG) adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal or "Plan" herein) for the six-county region including Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Connect SoCal reflects the region's commitment to improve the region's mobility, sustainability and economy. To achieve these goals, the Plan demonstrates how the region will reduce greenhouse gas (GHG) emissions from transportation sources to comply with Senate Bill 375 (SB 375) and meet Federal Transportation Conformity Requirements pursuant to the Federal Clean Air Act.[2]

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 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. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004

[2] https://scag.ca.gov/read-plan-adopted-final-plan

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.

4.3 South Coast Air Quality Management District

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-precent 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

4.4 City of Claremont General Plan 2025

The Open Space, Parkland, Conservation and Air Quality Element of the City of Claremont General Plan 2009 (City of Claremont 2009) include air quality policies intended to limit sources of air pollution and sensitive receptor exposure. The following policies are applicable to the project:

• **Goal 5-18: Reduce the amount of air pollution emissions from mobile and stationary sources and enhance the airshed.**

Policy 5-18.1: Enhance pedestrian and bike facilities within the City and encourage alternative modes of transportation.

Policy 5-18.2: Encourage the use of clean fuel vehicles.

Policy 5-18.3: Promote the use of fuel-efficient heating and cooling equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.

Policy 5-18.4: Promote the use of clean air technologies such as fuel cell technologies, renewable energy sources. UV coatings, and alternative, non-fossil fuels.

Policy 5-18.5: Continue to require the planting of street trees along City streets and inclusion of trees and landscaping for all development projects to help improve airshed and minimize urban heat island effects.

Policy 5-18.6: Encourage small businesses to utilize clean, innovative technologies to reduce air pollution.

Policy 5-18.7: Implement principles of green building.

Policy 5-18.8: Support jobs/housing balance within the community so more people can both live and work within the community. To reduce vehicle trips. encourage people to telecommute or work out of home or in local satellite offices.

• **Goal 5-19: Reduce the amount of fugitive dust released into the atmosphere.**

Policy 5-19.1: Support programs and policies of the South Coast Air Quality Management District regarding restrictions on grading operations at construction projects.

Policy 5-19.2: Cooperate with local, regional, state, and federal jurisdictions to control fugitive dust from stationary, mobile. and area sources.

Policy 5-19.3: Enforce regulations that do not allow vehicles to transport aggregate or similar material upon a roadway unless the material is stabilized or

covered, in accordance with state law and South Coast Air Quality Management District regulations.

5.0 MODELING PARAMETERS & ASSUMPTIONS

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. Using CalEEMod, the peak daily air pollutant emissions were calculated, and these emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

5.1 Construction Assumptions

The proposed project is to be operational in 2026 and construction is estimated to start in the year 2023 and last approximately 28 months. The project is proposing to demolish surface asphalt paving of approximately 40,000 square feet. The project will also export approximately 7,000 cubic yards (CY) of dirt during grading. The phases of the construction activities include demolition, site preparation, building construction, paving, and architectural coating. For details on construction modeling and construction equipment for each phase, 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. SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is 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 Rule403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 is required.

5.1.1 Localized Construction Assumptions

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 is shown in Table 8.

Table 8
Construction Equipment Assumptions

Phase	Equipment	Number	Soil Disturbance Rate (Acres/ 8hr-Day)	Total Daily Disturbance Footprint (Acres)
Site Preparation	Rubber Tired Dozers	3	0.5	3.5
	Tractors/Loaders/Backhoes	4	0.5	

Source: 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 8, the maximum number of acres disturbed in a day would be 3.5 acres.

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 Pomona/Walnut Valley Source Receptor Area (SRA 10) and a disturbance of 3.5 acres per day, to be conservative, 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 adjacent to the south of the site.

5.2 Operational Assumptions

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 Source:

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The proposed project would generate approximately 358 average daily trips and are based on the Foothill and Towne Residential Development Traffic Impact Study, City of Claremont, by RK Engineering Group, INC., dated September 7, 2022 (Traffic Study).

The program then applies the emission factors for each trip which is provided by the EMFAC2017 model is used 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 for details.

Area Source:

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 445, wood burning stoves and/or devices are not allowed in new developments as a result no wood burning devices are modeled as a part of the project.

Energy Source:

2020.4.0 CalEEMod defaults were utilized.

5.2.1 Localized Operational Assumptions

For operational emissions, the screening tables for a disturbance area of 3.5 acres and a distance of 25 meters were used to determine significance. The tables were compared to the project's onsite operational emissions.

6.0 THRESHOLDS OF SIGNIFICANCE

6.1 Air Quality Standards of Significance

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A Project would have a potentially significant impact if it:

a) Conflicts with or obstructs implementation of the applicable air quality plan.

b) Results in a cumulatively considerable net increase of any criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Exposes sensitive receptors to substantial pollutant concentrations.

d) Creates objectionable odors affecting a substantial number of people.

6.1.1 Regional Significance Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (SCAQMD) may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.

The SCAQMD has established thresholds of significance or air quality for construction and operational activities of land use development projects such as that proposed, as shown in Table 9.

Table 9
SCAQMD Regional Significance Thresholds

Emissions Thresholds of Significance		
Pollutants	**Construction Pounds/day**	**Operation Pounds/day**
Nitrous Oxides (NOx)	100	55
Volatile Organic Compounds (VOC)	75	55
Particulate Matter <10 µg (PM10)	150	150
Particulate Matter <2.5 µg (PM2.5)	55	55
Sulfur Oxides (SOx)	150	150
Carbon Monoxide (CO)	550	550
Lead (Pb)	3	3

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

6.1.2 Localized Significance Thresholds

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 PM2.5.

The emission thresholds were calculated based on the Pomona/Walnut Valley source receptor area (SRA 10) and a disturbance of 3.5 acres per day at a distance of 25 meters and are shown in Table 10.

The nearest existing sensitive receptors are located along the property lines surrounding the project site, less than 25 meters from potential areas of on-site construction and operational activity. Although receptors are located closer than 25 meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area is calculated to be 3.5 acres, however LST thresholds are only based on 1, 2 and 5-acre sites. Therefore, a linear trend line was used to estimate the threshold for a 3.5-acre site based on the established LST thresholds.

Table 10
SCAQMD Localized Significance Thresholds (LST)

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	189.6	189.6
CO	1,217.5	1,217.5
PM_{10}	9.0	2.4
$PM_{2.5}$	5.5	1.6

Source: SCAQMD Mass Rate Localized Significance Thresholds for 3.5-acre site in SRA-10 at 25 meters

6.2 Greenhouse Gas Thresholds of Significance

6.2.1 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.

The City of Claremont has not yet adopted any GHG reduction plans. For the purpose of this analysis, the SCAQMD interim screening level Tier 3 numerical screening threshold of 3,000 MT CO_2e/yr for residential mixed-use development such as the proposed project. If it is determined that the proposed project is estimated to exceed this screening threshold under Tier 3, it will then be compared to the SCAQMD-recommended Tier 4 efficiency-based threshold of 4.8 metric tons of CO_2e per service population per year in 2020, and 3.0 metric tons of CO_2e per service population per year in 2035.

7.0 AIR QULAITY IMPACT ANALYSIS

The latest version of CalEEMod Model Version 2020.4.0 was used to estimate the onsite and offsite construction emissions. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies design features to reduce criteria pollutant and GHG emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A Project would have a potentially significant impact if it:

a) Conflicts with or obstructs implementation of the applicable air quality plan.

b) Results in a cumulatively considerable net increase of any criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Exposes sensitive receptors to substantial pollutant concentrations.

d) Creates objectionable odors affecting a substantial number of people.

7.1 Construction Air Quality Emissions Impact

7.1.1 Regional Construction Emissions

The construction emissions for the project would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 11, and therefore would be considered less than significant.

Table 11
Regional Significance - Construction Emissions (pounds / day)

Analysis	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Regional Emissions						
Maximum Regional Daily Emissions[1]	11.73	7.65	24.24	0.06	8.68	4.44
SCAQMD Significance Threshold	75	100	550	150	150	55
Exceeds SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod 2020.4.0. See Appendix A.
1= Maximum daily emissions during summer or winter for both on-site and off-site emissions.

7.1.2 Localized Construction Emissions

As shown in Table 12 none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 12
Local Significance - Construction Emissions (pounds / day)

Criteria Pollutants	NOx	CO	PM_{10}	$PM_{2.5}$
Maximum On-site Emissions	2.23	23.28	8.47	4.38
SCAQMD Localized Significance Threshold	189.6	1,217.5	9.0	5.5
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod 2020.4.0 and SCAQMD's Mass Rate Look-up Tables for 3.5 acres in SRA 10 at 25 meters.
1= Maximum daily summer or Winter on-site emissions.

7.1.3 Construction - Odor

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 project, 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 proposed project.

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project 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.

Through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

7.1.4 Construction – Toxic Air Contaminants

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 project. 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 short-term construction schedule, the proposed project's construction activity is not expected to be a long-term (i.e., 30 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. It should be noted, however, that a quantified health risk assessment has not been performed for this project.

In order to ensure the level of Diesel Particular Matter (DPM) exposure is reduced as much as possible, the project is expected to implement the best available pollution control strategies to minimize potential health risks. The follow DPM control measures include:

- Utilize low emission "clean diesel" equipment with new or modified engines (Tier 4 or better) that include diesel oxidation catalysts, diesel particulate filters or Moyer Program retrofits that meet CARB best available control technology.

- Establish staging areas for the construction equipment that are as distant as possible from adjacent sensitive receptors;

- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible;

- Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

7.2 Operational Air Quality Emissions Impact

7.2.1 Regional Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of CalEEMod model. The summer and winter emissions created by the proposed project's long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 13.

Table 13 provides the project's unmitigated operational emissions. Table 13 shows that the project does not exceed the SCAQMD daily emission threshold and regional operational emissions are considered to be less than significant.

Table 13
Regional Significance – Construction Emissions (pounds / day)

Activity	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources[1]	1.00	1.08	10.03	0.02	2.60	0.70
Energy Sources[2]	0.03	0.23	0.10	<0.01	0.02	0.02
Area Sources[3]	1.45	0.98	5.01	0.01	0.10	0.10
Total Emissions	2.53	2.34	15.68	0.03	2.71	0.82
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Source: CalEEMod 2020.4.0
1=Mobile sources consist of emissions from vehicles and road dust.
2=Energy usage consists of emissions from on-site natural gas usage.
3=Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

7.2.2 Localized Operational Emissions

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 facilities. The proposed project consists of a condominiums/multifamily residential use and does not include such uses. Thus, due to the lack

of such emissions, no long-term localized significance thresholds analysis is necessary. Operational LST impacts would be less than significant.

7.2.3 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 previously discussed.

To determine if the proposed project could cause emission levels in excess of the CO standards, 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 else. If the worst-case intersections in the air basin have no "hot spot" potential, any local impacts will be below thresholds.

According to the Traffic Study, the project would generate a total of 358 daily vehicle trips. 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 with cumulative projects 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 proposed project.

7.2.4 Operations – Odor

The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may not discharge 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. Project related odors are not expected to meet the criteria of being a nuisance. The project's operation would result in less than significant odor impacts.

7.2.5 Operations – Toxic Air Contaminants

The project would consist of mixed use consisting of residential land uses. These types of projects do not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. Therefore, the project impact is considered less than significant.

8.0 GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS

8.1 Construction GHG Emissions Impact

CalEEMod assumes the proposed project to requires approximately 28 months for construction. During project construction, the CalEEMod2020.4.0 computer model predicts that the construction activities will generate the annual CO_2e emissions identified in Table 14.

Table 14
Construction Emissions (Metric Tons CO_2e)

Conditions	CO_2e
Total Emissions Year 2023	284.71
Total Emissions Year 2024	364.98
Total Emissions Year 2025	194.48
Amortized over 30 years	**28.14**

Source: CalEEMod Output contained in Appendix A

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. As shown in Table 14, the amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

8.2 Operational GHG Emissions Impact

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod 2020.4.0 output files found in Appendix A of this report. The total operational and annualized construction emissions for the proposed Project are identified in Table 15.

Table 15
Operational Emissions (Metric Tons CO_2e)

Source Category	Greenhouse Gas Emissions (Metric Tons CO_2e /Year)
Area Sources[1]	14.49
Energy Usage[2]	96.97
Mobile Sources[3]	383.93
Solid Waste[4]	12.95
Water[5]	17.99
Construction[6]	28.14
Total Emissions	**554.47**
SCAQMD Tier 3 Thresholds	3,000
Exceeds Thresholds	No

Source: CalEEMod 2020.4.0. See Appendix A.
1= Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
2= Energy usage consist of GHG emissions from electricity and natural gas usage.
3= Mobile sources consist of GHG emissions from vehicles.
4= Solid waste includes the CO2 and CH4 emissions created from the solid waste placed in landfills.
5= Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
6= Construction GHG emissions based on a 30-year amortization rate.

As shown in Table 15, the proposed project would generate approximately 551.15 MT CO_2e/yr. The project's emissions are less than SCAQMD Tier 3 threshold of 3,000 MT CO_2e/yr for residential use projects. Based on the GHG analysis, the proposed project impacts would be less than significant.

8.3 Consistency with GHG Plans, Programs & Policy

The SCAG region was home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs. By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the sustainable communities strategy (SCS) or alternate planning strategy (APS). On September 3, 2020, the Southern

California Association of Governments (SCAG) adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal or "Plan" herein) for the six-county region including Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Connect SoCal reflects the region's commitment to improve the region's mobility, sustainability and economy. At the regional level, the Connect SoCal is an applicable plan adopted for the purpose of reducing GHGs. Generally, projects are consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Connect SoCal, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Therefore, the proposed project would be consistent with the GHG reduction-related actions and strategies contained in the Connect SoCal.

In addition, the project will comply with all the applicable goals and policies of the City of Claremont. The City of Claremont has drafted a Sustainable City Plan that outlines several energy efficient goals that directly relate to GHG emission reduction goals. For example, the City's goal is to apply sustainable design standards to all new facilities community wide and promote sustainable design practices in homes and commercial buildings (i.e., CALGREEN Building Standards). The proposed project would be required to meet the applicable Building Energy Efficient Standards. As a result, the project would be consistent with GHG Emission Reduction Strategies and applicable State and local regulations. To facilitate implementation of the Green Building Code, the City of Claremont Cities mandated all new discretionary development projects to incorporate by reference the mandatory requirements of the 2022 California Green Building Standards Code. The proposed project would comply with performance-based standards included in 2022 Title 24 Building Energy Efficiency Standards. It should be noted that, buildings whose permit applications are applied for on or after January 1, 2023, would be required to comply with 2022 Energy Code.

9.0 PROJECT DESIGN FEATURES

9.1 Construction Design Features

These construction measures would be included in the building plans as a project design feature. The following recommended project design features include standard rules and requirements, best practices and recognized design guidelines for reducing air quality and GHG emissions. Design features are assumed to be part of the conditions of approval for the project and integrated into its design.

- The project must follow the standard SCAQMD rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:
    - All active construction areas shall be watered two (2) times daily.
    - Speed on unpaved roads shall be reduced to less than 15 mph.
    - Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
    - Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
    - All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
    - Access points shall be washed or swept daily.
    - Construction sites shall be sandbagged for erosion control.
    - Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
    - Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.

- Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.

- Replace the ground cover of disturbed areas as quickly possible.

- All diesel construction equipment shall have Tier 4 low emission “clean diesel” engines (OEM or retrofit) that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology.

- Construction equipment should be maintained in proper tune.

- All construction vehicles should be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

- Minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

- The use of heavy construction equipment and earthmoving activity should be suspended during Air Alerts when the Air Quality Index reaches the “Unhealthy” level.

- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

- Establish staging areas for the construction equipment that as far from adjacent residential homes, as feasible.

- Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

9.2 Operational Design Features

The proposed project is required to comply with Title 24 of the CCR established by CEC regarding energy conservation and green-building standards. The proposed project shall also comply with the City of Claremont applicable goals and policies of the GHG reduction measures for residential development.

Green Buildings and Energy Efficiency Measures

- Design all project buildings to meet the California Building Code (CBC) Title 24 energy standard, including, but not limited to, any combination of the following:

- Increase insulation such that heat transfer and thermal bridging are minimized.

- Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.

- Incorporate Title 24 or better rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.

- Install energy-efficient lighting (e.g., light-emitting diodes [LEDs] and lighting control systems).

- Install photovoltaic systems to convert solar energy into electricity. Providing power locally will decrease electricity use for 15 percent of the energy made by Southern California Edison.

The applicable CalRecycle Sustainable (Green) Building Program Measures are as follows:

- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle 2019).

- Use “green building materials” such as those materials that are rapidly renewable or resource efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project.

Water Conservation:

- Install water-efficient fixtures and appliances such as low-flow fixtures, dual-flush toilets, and other water-efficient appliances in accordance with Title 24 codes.

- Install water-efficient irrigation systems and devices, such as soil-moisture-based irrigation controls, and use water-efficient irrigation methods in accordance with Title 24 codes.

APPENDIX A:
CalEEMod Outputs

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

1030 West Foothill Boulevard Residential 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
Condo/Townhouse	56.00	Dwelling Unit	3.05	56,000.00	160

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2026
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 - 56 Condominiums on an approximately 3.05 acre site.

Construction Phase - Construction schedule is provided by the applicant

Trips and VMT - Two vendor trucks has been added both during site preparation and grading phase to account for water truck usage.

Demolition - There is an existing approximately 40,000 square feet of concerete/asphalt paving on site.

Grading - Project is expected to export approximately 7,000 CY of earthwork materials

Vehicle Trips - Trip Generation Rates are based on Traffic Report, by RK Engineering Group, inc. dated September 7, 2022. Weekday rates has veen applied to Weekend rates as conservative analysis.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - According to SCAQMD Rule 445, No wood buring stoves/devices are allowed.

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

Construction Off-road Equipment Mitigation - The project is required to follow SCAQMD Rule 403. The project would use Tier 4 Construction Engines as a standrad design feature.

Area Mitigation - Project is required to comply with SCAQMD Rule 1113.

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingValue	100	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	18.00	30.00
tblConstructionPhase	NumDays	230.00	522.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	20.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	47.60	56.00
tblFireplaces	NumberNoFireplace	5.60	0.00
tblFireplaces	NumberWood	2.80	0.00
tblGrading	MaterialExported	0.00	7,000.00
tblLandUse	LotAcreage	3.50	3.05
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	8.14	6.40
tblVehicleTrips	SU_TR	6.28	6.40
tblVehicleTrips	WD_TR	7.32	6.40
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
2023	0.1581	1.4779	1.5644	3.1800e-003	0.1848	0.0664	0.2512	0.0746	0.0621	0.1367	0.0000	281.2624	281.2624	0.0582	6.7000e-003	284.7138
2024	0.2091	1.8047	2.2955	4.1600e-003	0.0624	0.0808	0.1432	0.0167	0.0760	0.0927	0.0000	362.2124	362.2124	0.0734	3.1300e-003	364.9813
2025	0.2788	0.8850	1.2300	2.2200e-003	0.0331	0.0372	0.0702	8.8300e-003	0.0350	0.0438	0.0000	193.0410	193.0410	0.0397	1.5000e-003	194.4806
Maximum	**0.2788**	**1.8047**	**2.2955**	**4.1600e-003**	**0.1848**	**0.0808**	**0.2512**	**0.0746**	**0.0760**	**0.1367**	**0.0000**	**362.2124**	**362.2124**	**0.0734**	**6.7000e-003**	**364.9813**

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					
2023	0.0415	0.2842	1.7103	3.1800e-003	0.1046	4.5800e-003	0.1092	0.0388	4.5400e-003	0.0433	0.0000	281.2622	281.2622	0.0582	6.7000e-003	284.7135
2024	0.0593	0.3363	2.4649	4.1600e-003	0.0624	5.8300e-003	0.0682	0.0167	5.8000e-003	0.0225	0.0000	362.2120	362.2120	0.0734	3.1300e-003	364.9809
2025	0.2063	0.1709	1.3285	2.2200e-003	0.0331	3.1200e-003	0.0362	8.8300e-003	3.1000e-003	0.0119	0.0000	193.0408	193.0408	0.0397	1.5000e-003	194.4804
Maximum	**0.2063**	**0.3363**	**2.4649**	**4.1600e-003**	**0.1046**	**5.8300e-003**	**0.1092**	**0.0388**	**5.8000e-003**	**0.0433**	**0.0000**	**362.2120**	**362.2120**	**0.0734**	**6.7000e-003**	**364.9809**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	52.46	81.01	-8.13	0.00	28.61	92.66	54.03	35.78	92.24	71.55	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	5-1-2023	7-31-2023	0.7274	0.1548
2	8-1-2023	10-31-2023	0.5396	0.0995
3	11-1-2023	1-31-2024	0.5285	0.0999
4	2-1-2024	4-30-2024	0.4941	0.0970
5	5-1-2024	7-31-2024	0.5044	0.0985
6	8-1-2024	10-31-2024	0.5047	0.0988
7	11-1-2024	1-31-2025	0.4932	0.0993
8	2-1-2025	4-30-2025	0.4537	0.0953
9	5-1-2025	7-31-2025	0.4129	0.1245
10	8-1-2025	9-30-2025	0.1396	0.1272
		Highest	0.7274	0.1548

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.2386	0.0183	0.5819	1.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	14.3910	14.3910	1.1600e-003	2.5000e-004	14.4935
Energy	4.8800e-003	0.0417	0.0178	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	96.4386	96.4386	4.9900e-003	1.3800e-003	96.9740
Mobile	0.1796	0.1985	1.8398	4.0900e-003	0.4602	2.9500e-003	0.4632	0.1228	2.7400e-003	0.1255	0.0000	378.4069	378.4069	0.0260	0.0163	383.9272
Waste						0.0000	0.0000		0.0000	0.0000	5.2291	0.0000	5.2291	0.3090	0.0000	12.9547
Water						0.0000	0.0000		0.0000	0.0000	1.1575	12.9576	14.1152	0.1200	2.9400e-003	17.9908
Total	**0.4231**	**0.2584**	**2.4395**	**4.4600e-003**	**0.4602**	**0.0105**	**0.4707**	**0.1228**	**0.0103**	**0.1330**	**6.3866**	**502.1941**	**508.5807**	**0.4612**	**0.0209**	**526.3403**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.2386	0.0183	0.5819	1.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	14.3910	14.3910	1.1600e-003	2.5000e-004	14.4935
Energy	4.8800e-003	0.0417	0.0178	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	96.4386	96.4386	4.9900e-003	1.3800e-003	96.9740
Mobile	0.1796	0.1985	1.8398	4.0900e-003	0.4602	2.9500e-003	0.4632	0.1228	2.7400e-003	0.1255	0.0000	378.4069	378.4069	0.0260	0.0163	383.9272
Waste						0.0000	0.0000		0.0000	0.0000	5.2291	0.0000	5.2291	0.3090	0.0000	12.9547
Water						0.0000	0.0000		0.0000	0.0000	1.1575	12.9576	14.1152	0.1200	2.9400e-003	17.9908
Total	**0.4231**	**0.2584**	**2.4395**	**4.4600e-003**	**0.4602**	**0.0105**	**0.4707**	**0.1228**	**0.0103**	**0.1330**	**6.3866**	**502.1941**	**508.5807**	**0.4612**	**0.0209**	**526.3403**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2023	5/19/2023	5	15	
2	Site Preparation	Site Preparation	5/20/2023	5/26/2023	5	5	
3	Grading	Grading	5/27/2023	6/23/2023	5	20	

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

4	Building Construction	Building Construction	6/24/2023	6/24/2025	5	522	
5	Paving	Paving	6/25/2025	7/18/2025	5	18	
6	Architectural Coating	Architectural Coating	7/19/2025	8/30/2025	5	30	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 113,400; Residential Outdoor: 37,800; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36

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

Paving	Rollers	2	6.00	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	6	15.00	0.00	182.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	2.00	875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	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

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

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

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	2.9800e-003	0.0000	2.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1611	0.1473	2.9000e-004		7.4800e-003	7.4800e-003		6.9600e-003	6.9600e-003	0.0000	25.4941	25.4941	7.1400e-003	0.0000	25.6726
Total	**0.0170**	**0.1611**	**0.1473**	**2.9000e-004**	**0.0197**	**7.4800e-003**	**0.0272**	**2.9800e-003**	**6.9600e-003**	**9.9400e-003**	**0.0000**	**25.4941**	**25.4941**	**7.1400e-003**	**0.0000**	**25.6726**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.9000e-004	0.0125	3.1900e-003	5.0000e-005	1.5700e-003	7.0000e-005	1.6400e-003	4.3000e-004	7.0000e-005	5.0000e-004	0.0000	5.3078	5.3078	2.9000e-004	8.4000e-004	5.5662
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	3.6000e-004	2.8000e-004	3.8300e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9813	0.9813	3.0000e-005	3.0000e-005	0.9895
Total	**5.5000e-004**	**0.0128**	**7.0200e-003**	**6.0000e-005**	**2.8000e-003**	**8.0000e-005**	**2.8800e-003**	**7.6000e-004**	**8.0000e-005**	**8.3000e-004**	**0.0000**	**6.2890**	**6.2890**	**3.2000e-004**	**8.7000e-004**	**6.5558**

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3.2 Demolition - 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					
Fugitive Dust					8.4200e-003	0.0000	8.4200e-003	1.2700e-003	0.0000	1.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4700e-003	0.0150	0.1746	2.9000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	25.4940	25.4940	7.1400e-003	0.0000	25.6725
Total	**3.4700e-003**	**0.0150**	**0.1746**	**2.9000e-004**	**8.4200e-003**	**4.6000e-004**	**8.8800e-003**	**1.2700e-003**	**4.6000e-004**	**1.7300e-003**	**0.0000**	**25.4940**	**25.4940**	**7.1400e-003**	**0.0000**	**25.6725**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.9000e-004	0.0125	3.1900e-003	5.0000e-005	1.5700e-003	7.0000e-005	1.6400e-003	4.3000e-004	7.0000e-005	5.0000e-004	0.0000	5.3078	5.3078	2.9000e-004	8.4000e-004	5.5662
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	3.6000e-004	2.8000e-004	3.8300e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9813	0.9813	3.0000e-005	3.0000e-005	0.9895
Total	**5.5000e-004**	**0.0128**	**7.0200e-003**	**6.0000e-005**	**2.8000e-003**	**8.0000e-005**	**2.8800e-003**	**7.6000e-004**	**8.0000e-005**	**8.3000e-004**	**0.0000**	**6.2890**	**6.2890**	**3.2000e-004**	**8.7000e-004**	**6.5558**

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

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0491**	**3.1700e-003**	**0.0523**	**0.0253**	**2.9100e-003**	**0.0282**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.0000e-004	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0909	0.0909	0.0000	1.0000e-005	0.0949
Worker	1.4000e-004	1.1000e-004	1.5300e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3925	0.3925	1.0000e-005	1.0000e-005	0.3958
Total	**1.5000e-004**	**3.1000e-004**	**1.6100e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4834**	**0.4834**	**1.0000e-005**	**2.0000e-005**	**0.4907**

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

3.3 Site Preparation - 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					
Fugitive Dust					0.0210	0.0000	0.0210	0.0108	0.0000	0.0108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1600e-003	5.0400e-003	0.0522	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**1.1600e-003**	**5.0400e-003**	**0.0522**	**1.0000e-004**	**0.0210**	**1.6000e-004**	**0.0212**	**0.0108**	**1.6000e-004**	**0.0110**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.0000e-004	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0909	0.0909	0.0000	1.0000e-005	0.0949
Worker	1.4000e-004	1.1000e-004	1.5300e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3925	0.3925	1.0000e-005	1.0000e-005	0.3958
Total	**1.5000e-004**	**3.1000e-004**	**1.6100e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4834**	**0.4834**	**1.0000e-005**	**2.0000e-005**	**0.4907**

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

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0712	0.0000	0.0712	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0712**	**7.7500e-003**	**0.0790**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.2000e-004	0.0602	0.0153	2.6000e-004	7.5300e-003	3.6000e-004	7.8900e-003	2.0700e-003	3.4000e-004	2.4100e-003	0.0000	25.5180	25.5180	1.4000e-003	4.0500e-003	26.7608
Vendor	2.0000e-005	8.1000e-004	3.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.3636	0.3636	1.0000e-005	5.0000e-005	0.3795
Worker	4.8000e-004	3.8000e-004	5.1100e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3084	1.3084	3.0000e-005	3.0000e-005	1.3194
Total	**1.4200e-003**	**0.0614**	**0.0207**	**2.7000e-004**	**9.3000e-003**	**3.7000e-004**	**9.6700e-003**	**2.5500e-003**	**3.5000e-004**	**2.9000e-003**	**0.0000**	**27.1900**	**27.1900**	**1.4400e-003**	**4.1300e-003**	**28.4597**

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

3.4 Grading - 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					
Fugitive Dust					0.0305	0.0000	0.0305	0.0147	0.0000	0.0147	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0157	0.1775	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**3.6300e-003**	**0.0157**	**0.1775**	**3.0000e-004**	**0.0305**	**4.8000e-004**	**0.0309**	**0.0147**	**4.8000e-004**	**0.0152**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.2000e-004	0.0602	0.0153	2.6000e-004	7.5300e-003	3.6000e-004	7.8900e-003	2.0700e-003	3.4000e-004	2.4100e-003	0.0000	25.5180	25.5180	1.4000e-003	4.0500e-003	26.7608
Vendor	2.0000e-005	8.1000e-004	3.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.3636	0.3636	1.0000e-005	5.0000e-005	0.3795
Worker	4.8000e-004	3.8000e-004	5.1100e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3084	1.3084	3.0000e-005	3.0000e-005	1.3194
Total	**1.4200e-003**	**0.0614**	**0.0207**	**2.7000e-004**	**9.3000e-003**	**3.7000e-004**	**9.6700e-003**	**2.5500e-003**	**3.5000e-004**	**2.9000e-003**	**0.0000**	**27.1900**	**27.1900**	**1.4400e-003**	**4.1300e-003**	**28.4597**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.1062	0.9710	1.0965	1.8200e-003		0.0472	0.0472		0.0444	0.0444	0.0000	156.4682	156.4682	0.0372	0.0000	157.3987
Total	**0.1062**	**0.9710**	**1.0965**	**1.8200e-003**		**0.0472**	**0.0472**		**0.0444**	**0.0444**	**0.0000**	**156.4682**	**156.4682**	**0.0372**	**0.0000**	**157.3987**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.6000e-004	0.0163	6.1100e-003	8.0000e-005	2.5500e-003	8.0000e-005	2.6300e-003	7.4000e-004	7.0000e-005	8.1000e-004	0.0000	7.3638	7.3638	2.5000e-004	1.0600e-003	7.6858
Worker	8.5700e-003	6.8000e-003	0.0920	2.6000e-004	0.0296	1.8000e-004	0.0298	7.8600e-003	1.7000e-004	8.0300e-003	0.0000	23.5506	23.5506	6.3000e-004	6.1000e-004	23.7489
Total	**9.0300e-003**	**0.0231**	**0.0981**	**3.4000e-004**	**0.0321**	**2.6000e-004**	**0.0324**	**8.6000e-003**	**2.4000e-004**	**8.8400e-003**	**0.0000**	**30.9144**	**30.9144**	**8.8000e-004**	**1.6700e-003**	**31.4347**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0221	0.1508	1.1786	1.8200e-003		2.7500e-003	2.7500e-003		2.7500e-003	2.7500e-003	0.0000	156.4680	156.4680	0.0372	0.0000	157.3986
Total	**0.0221**	**0.1508**	**1.1786**	**1.8200e-003**		**2.7500e-003**	**2.7500e-003**		**2.7500e-003**	**2.7500e-003**	**0.0000**	**156.4680**	**156.4680**	**0.0372**	**0.0000**	**157.3986**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.6000e-004	0.0163	6.1100e-003	8.0000e-005	2.5500e-003	8.0000e-005	2.6300e-003	7.4000e-004	7.0000e-005	8.1000e-004	0.0000	7.3638	7.3638	2.5000e-004	1.0600e-003	7.6858
Worker	8.5700e-003	6.8000e-003	0.0920	2.6000e-004	0.0296	1.8000e-004	0.0298	7.8600e-003	1.7000e-004	8.0300e-003	0.0000	23.5506	23.5506	6.3000e-004	6.1000e-004	23.7489
Total	**9.0300e-003**	**0.0231**	**0.0981**	**3.4000e-004**	**0.0321**	**2.6000e-004**	**0.0324**	**8.6000e-003**	**2.4000e-004**	**8.8400e-003**	**0.0000**	**30.9144**	**30.9144**	**8.8000e-004**	**1.6700e-003**	**31.4347**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0317	0.0116	1.4000e-004	4.9500e-003	1.5000e-004	5.1100e-003	1.4300e-003	1.5000e-004	1.5800e-003	0.0000	14.0768	14.0768	4.8000e-004	2.0300e-003	14.6931
Worker	0.0155	0.0118	0.1660	4.8000e-004	0.0574	3.4000e-004	0.0578	0.0153	3.1000e-004	0.0156	0.0000	44.4133	44.4133	1.1000e-003	1.1100e-003	44.7703
Total	**0.0164**	**0.0435**	**0.1776**	**6.2000e-004**	**0.0624**	**4.9000e-004**	**0.0629**	**0.0167**	**4.6000e-004**	**0.0171**	**0.0000**	**58.4901**	**58.4901**	**1.5800e-003**	**3.1400e-003**	**59.4634**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0317	0.0116	1.4000e-004	4.9500e-003	1.5000e-004	5.1100e-003	1.4300e-003	1.5000e-004	1.5800e-003	0.0000	14.0768	14.0768	4.8000e-004	2.0300e-003	14.6931
Worker	0.0155	0.0118	0.1660	4.8000e-004	0.0574	3.4000e-004	0.0578	0.0153	3.1000e-004	0.0156	0.0000	44.4133	44.4133	1.1000e-003	1.1100e-003	44.7703
Total	**0.0164**	**0.0435**	**0.1776**	**6.2000e-004**	**0.0624**	**4.9000e-004**	**0.0629**	**0.0167**	**4.6000e-004**	**0.0171**	**0.0000**	**58.4901**	**58.4901**	**1.5800e-003**	**3.1400e-003**	**59.4634**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0855	0.7794	1.0053	1.6900e-003		0.0330	0.0330		0.0310	0.0310	0.0000	144.9497	144.9497	0.0341	0.0000	145.8015
Total	**0.0855**	**0.7794**	**1.0053**	**1.6900e-003**		**0.0330**	**0.0330**		**0.0310**	**0.0310**	**0.0000**	**144.9497**	**144.9497**	**0.0341**	**0.0000**	**145.8015**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.0000e-004	0.0151	5.4400e-003	7.0000e-005	2.3600e-003	7.0000e-005	2.4400e-003	6.8000e-004	7.0000e-005	7.5000e-004	0.0000	6.5952	6.5952	2.3000e-004	9.5000e-004	6.8843
Worker	6.9300e-003	5.0400e-003	0.0737	2.2000e-004	0.0274	1.5000e-004	0.0276	7.2800e-003	1.4000e-004	7.4200e-003	0.0000	20.4695	20.4695	4.7000e-004	4.9000e-004	20.6281
Total	**7.3300e-003**	**0.0201**	**0.0792**	**2.9000e-004**	**0.0298**	**2.2000e-004**	**0.0300**	**7.9600e-003**	**2.1000e-004**	**8.1700e-003**	**0.0000**	**27.0647**	**27.0647**	**7.0000e-004**	**1.4400e-003**	**27.5124**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0205	0.1397	1.0913	1.6900e-003		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	144.9495	144.9495	0.0341	0.0000	145.8013
Total	**0.0205**	**0.1397**	**1.0913**	**1.6900e-003**		**2.5500e-003**	**2.5500e-003**		**2.5500e-003**	**2.5500e-003**	**0.0000**	**144.9495**	**144.9495**	**0.0341**	**0.0000**	**145.8013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.0000e-004	0.0151	5.4400e-003	7.0000e-005	2.3600e-003	7.0000e-005	2.4400e-003	6.8000e-004	7.0000e-005	7.5000e-004	0.0000	6.5952	6.5952	2.3000e-004	9.5000e-004	6.8843
Worker	6.9300e-003	5.0400e-003	0.0737	2.2000e-004	0.0274	1.5000e-004	0.0276	7.2800e-003	1.4000e-004	7.4200e-003	0.0000	20.4695	20.4695	4.7000e-004	4.9000e-004	20.6281
Total	**7.3300e-003**	**0.0201**	**0.0792**	**2.9000e-004**	**0.0298**	**2.2000e-004**	**0.0300**	**7.9600e-003**	**2.1000e-004**	**8.1700e-003**	**0.0000**	**27.0647**	**27.0647**	**7.0000e-004**	**1.4400e-003**	**27.5124**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.3800e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	5.3100e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.4738	1.4738	3.0000e-005	4.0000e-005	1.4852
Total	**5.0000e-004**	**3.6000e-004**	**5.3100e-003**	**2.0000e-005**	**1.9700e-003**	**1.0000e-005**	**1.9800e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.4738**	**1.4738**	**3.0000e-005**	**4.0000e-005**	**1.4852**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	1.9700e-003	8.5600e-003	0.1218	1.7000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9700e-003**	**8.5600e-003**	**0.1218**	**1.7000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	5.3100e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.4738	1.4738	3.0000e-005	4.0000e-005	1.4852
Total	**5.0000e-004**	**3.6000e-004**	**5.3100e-003**	**2.0000e-005**	**1.9700e-003**	**1.0000e-005**	**1.9800e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.4738**	**1.4738**	**3.0000e-005**	**4.0000e-005**	**1.4852**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.1752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5600e-003	0.0172	0.0271	4.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	3.8299	3.8299	2.1000e-004	0.0000	3.8351
Total	**0.1778**	**0.0172**	**0.0271**	**4.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**3.8299**	**3.8299**	**2.1000e-004**	**0.0000**	**3.8351**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.3000e-004	2.4000e-004	3.5400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	0.9825	0.9825	2.0000e-005	2.0000e-005	0.9902
Total	**3.3000e-004**	**2.4000e-004**	**3.5400e-003**	**1.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**0.9825**	**0.9825**	**2.0000e-005**	**2.0000e-005**	**0.9902**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.1752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	1.9300e-003	0.0275	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.8299	3.8299	2.1000e-004	0.0000	3.8351
Total	**0.1757**	**1.9300e-003**	**0.0275**	**4.0000e-005**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**3.8299**	**3.8299**	**2.1000e-004**	**0.0000**	**3.8351**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.3000e-004	2.4000e-004	3.5400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	0.9825	0.9825	2.0000e-005	2.0000e-005	0.9902
Total	**3.3000e-004**	**2.4000e-004**	**3.5400e-003**	**1.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**0.9825**	**0.9825**	**2.0000e-005**	**2.0000e-005**	**0.9902**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1796	0.1985	1.8398	4.0900e-003	0.4602	2.9500e-003	0.4632	0.1228	2.7400e-003	0.1255	0.0000	378.4069	378.4069	0.0260	0.0163	383.9272
Unmitigated	0.1796	0.1985	1.8398	4.0900e-003	0.4602	2.9500e-003	0.4632	0.1228	2.7400e-003	0.1255	0.0000	378.4069	378.4069	0.0260	0.0163	383.9272

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	358.40	358.40	358.40	1,224,707	1,224,707
Total	358.40	358.40	358.40	1,224,707	1,224,707

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.537891	0.065289	0.189998	0.126515	0.023567	0.006518	0.011114	0.008084	0.000933	0.000591	0.025474	0.000708	0.003318

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.1403	48.1403	4.0600e-003	4.9000e-004	48.3887
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.1403	48.1403	4.0600e-003	4.9000e-004	48.3887
NaturalGas Mitigated	4.8800e-003	0.0417	0.0178	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	48.2983	48.2983	9.3000e-004	8.9000e-004	48.5853
NaturalGas Unmitigated	4.8800e-003	0.0417	0.0178	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	48.2983	48.2983	9.3000e-004	8.9000e-004	48.5853

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
Condo/Townhouse	905075	4.8800e-003	0.0417	0.0178	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	48.2983	48.2983	9.3000e-004	8.9000e-004	48.5853
Total		**4.8800e-003**	**0.0417**	**0.0178**	**2.7000e-004**		**3.3700e-003**	**3.3700e-003**		**3.3700e-003**	**3.3700e-003**	**0.0000**	**48.2983**	**48.2983**	**9.3000e-004**	**8.9000e-004**	**48.5853**

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					
Condo/Townhouse	905075	4.8800e-003	0.0417	0.0178	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003	0.0000	48.2983	48.2983	9.3000e-004	8.9000e-004	48.5853
Total		**4.8800e-003**	**0.0417**	**0.0178**	**2.7000e-004**		**3.3700e-003**	**3.3700e-003**		**3.3700e-003**	**3.3700e-003**	**0.0000**	**48.2983**	**48.2983**	**9.3000e-004**	**8.9000e-004**	**48.5853**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	271449	48.1403	4.0600e-003	4.9000e-004	48.3887
Total		**48.1403**	**4.0600e-003**	**4.9000e-004**	**48.3887**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	271449	48.1403	4.0600e-003	4.9000e-004	48.3887
Total		**48.1403**	**4.0600e-003**	**4.9000e-004**	**48.3887**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2386	0.0183	0.5819	1.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	14.3910	14.3910	1.1600e-003	2.5000e-004	14.4935
Unmitigated	0.2386	0.0183	0.5819	1.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	14.3910	14.3910	1.1600e-003	2.5000e-004	14.4935

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	0.0175					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.3600e-003	0.0116	4.9400e-003	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4477	13.4477	2.6000e-004	2.5000e-004	13.5276
Landscaping	0.0173	6.6500e-003	0.5770	3.0000e-005		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003	0.0000	0.9434	0.9434	9.0000e-004	0.0000	0.9659
Total	**0.2386**	**0.0183**	**0.5819**	**1.0000e-004**		**4.1400e-003**	**4.1400e-003**		**4.1400e-003**	**4.1400e-003**	**0.0000**	**14.3910**	**14.3910**	**1.1600e-003**	**2.5000e-004**	**14.4935**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0175					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.3600e-003	0.0116	4.9400e-003	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4477	13.4477	2.6000e-004	2.5000e-004	13.5276
Landscaping	0.0173	6.6500e-003	0.5770	3.0000e-005		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003	0.0000	0.9434	0.9434	9.0000e-004	0.0000	0.9659
Total	**0.2386**	**0.0183**	**0.5819**	**1.0000e-004**		**4.1400e-003**	**4.1400e-003**		**4.1400e-003**	**4.1400e-003**	**0.0000**	**14.3910**	**14.3910**	**1.1600e-003**	**2.5000e-004**	**14.4935**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.1152	0.1200	2.9400e-003	17.9908
Unmitigated	14.1152	0.1200	2.9400e-003	17.9908

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	3.64863 / 2.30022	14.1152	0.1200	2.9400e-003	17.9908
Total		**14.1152**	**0.1200**	**2.9400e-003**	**17.9908**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	3.64863 / 2.30022	14.1152	0.1200	2.9400e-003	17.9908
Total		**14.1152**	**0.1200**	**2.9400e-003**	**17.9908**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2291	0.3090	0.0000	12.9547
Unmitigated	5.2291	0.3090	0.0000	12.9547

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	25.76	5.2291	0.3090	0.0000	12.9547
Total		**5.2291**	**0.3090**	**0.0000**	**12.9547**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	25.76	5.2291	0.3090	0.0000	12.9547
Total		**5.2291**	**0.3090**	**0.0000**	**12.9547**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

1030 West Foothill Boulevard Residential 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
Condo/Townhouse	56.00	Dwelling Unit	3.05	56,000.00	160

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2026
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 - 56 Condominiums on an approximately 3.05 acre site.

Construction Phase - Construction schedule is provided by the applicant

Trips and VMT - Two vendor trucks has been added both during site preparation and grading phase to account for water truck usage.

Demolition - There is an existing approximately 40,000 square feet of concerete/asphalt paving on site.

Grading - Project is expected to export approximately 7,000 CY of earthwork materials

Vehicle Trips - Trip Generation Rates are based on Traffic Report, by RK Engineering Group, inc. dated September 7, 2022. Weekday rates has veen applied to Weekend rates as conservative analysis.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - According to SCAQMD Rule 445, No wood buring stoves/devices are allowed.

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

Construction Off-road Equipment Mitigation - The project is required to follow SCAQMD Rule 403. The project would use Tier 4 Construction Engines as a standrad design feature.

Area Mitigation - Project is required to comply with SCAQMD Rule 1113.

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingValue	100	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	18.00	30.00
tblConstructionPhase	NumDays	230.00	522.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	20.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	47.60	56.00
tblFireplaces	NumberNoFireplace	5.60	0.00
tblFireplaces	NumberWood	2.80	0.00
tblGrading	MaterialExported	0.00	7,000.00
tblLandUse	LotAcreage	3.50	3.05
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	8.14	6.40
tblVehicleTrips	SU_TR	6.28	6.40
tblVehicleTrips	WD_TR	7.32	6.40
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
2023	2.7194	27.6411	20.6080	0.0571	19.8710	1.2676	21.1386	10.1595	1.1662	11.3257	0.0000	5,874.3967	5,874.3967	1.1984	0.4557	6,037.4259
2024	1.5975	13.7542	17.5974	0.0319	0.4855	0.6171	1.1026	0.1296	0.5804	0.7100	0.0000	3,062.7557	3,062.7557	0.6175	0.0256	3,085.8286
2025	11.8734	12.7709	17.4197	0.0318	0.4855	0.5312	1.0167	0.1296	0.4996	0.6293	0.0000	3,048.1591	3,048.1591	0.6133	0.0248	3,070.8685
Maximum	**11.8734**	**27.6411**	**20.6080**	**0.0571**	**19.8710**	**1.2676**	**21.1386**	**10.1595**	**1.1662**	**11.3257**	**0.0000**	**5,874.3967**	**5,874.3967**	**1.1984**	**0.4557**	**6,037.4259**

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					
2023	0.5366	7.3929	24.2445	0.0571	8.6174	0.0858	8.6811	4.3759	0.0842	4.4394	0.0000	5,874.3967	5,874.3967	1.1984	0.4557	6,037.4259
2024	0.4538	2.5451	18.8909	0.0319	0.4855	0.0445	0.5301	0.1296	0.0443	0.1739	0.0000	3,062.7557	3,062.7557	0.6175	0.0256	3,085.8286
2025	11.7322	2.5359	18.7953	0.0318	0.4855	0.0444	0.5300	0.1296	0.0442	0.1738	0.0000	3,048.1591	3,048.1591	0.6133	0.0248	3,070.8685
Maximum	**11.7322**	**7.3929**	**24.2445**	**0.0571**	**8.6174**	**0.0858**	**8.6811**	**4.3759**	**0.0842**	**4.4394**	**0.0000**	**5,874.3967**	**5,874.3967**	**1.1984**	**0.4557**	**6,037.4259**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	21.42	76.97	-11.34	0.00	53.99	92.77	58.12	55.51	92.32	62.20	0.00	0.00	0.00	0.00	0.00	0.00

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476
Energy	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Mobile	1.0212	0.9970	10.2170	0.0232	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,366.9598	2,366.9598	0.1543	0.0944	2,398.9431
Total	**2.5000**	**2.2076**	**15.3252**	**0.0308**	**2.5788**	**0.1354**	**2.7143**	**0.6870**	**0.1343**	**0.8213**	**0.0000**	**3,852.8856**	**3,852.8856**	**0.1906**	**0.1215**	**3,893.8488**

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	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476
Energy	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Mobile	1.0212	0.9970	10.2170	0.0232	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,366.9598	2,366.9598	0.1543	0.0944	2,398.9431
Total	**2.5000**	**2.2076**	**15.3252**	**0.0308**	**2.5788**	**0.1354**	**2.7143**	**0.6870**	**0.1343**	**0.8213**	**0.0000**	**3,852.8856**	**3,852.8856**	**0.1906**	**0.1215**	**3,893.8488**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2023	5/19/2023	5	15	
2	Site Preparation	Site Preparation	5/20/2023	5/26/2023	5	5	
3	Grading	Grading	5/27/2023	6/23/2023	5	20	
4	Building Construction	Building Construction	6/24/2023	6/24/2025	5	522	
5	Paving	Paving	6/25/2025	7/18/2025	5	18	
6	Architectural Coating	Architectural Coating	7/19/2025	8/30/2025	5	30	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 113,400; Residential Outdoor: 37,800; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

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

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	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	6	15.00	0.00	182.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	2.00	875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	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

Use Cleaner Engines for Construction Equipment

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6249	0.0000	2.6249	0.3974	0.0000	0.3974			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**2.6249**	**0.9975**	**3.6225**	**0.3974**	**0.9280**	**1.3254**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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

3.2 Demolition - 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	0.0263	1.5833	0.4226	7.1000e-003	0.2124	9.9900e-003	0.2224	0.0582	9.5500e-003	0.0678		779.7609	779.7609	0.0430	0.1238	817.7351
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	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0743**	**1.6167**	**0.9647**	**8.5800e-003**	**0.3800**	**0.0110**	**0.3910**	**0.1027**	**0.0105**	**0.1132**		**929.7722**	**929.7722**	**0.0468**	**0.1273**	**968.8726**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.1222	0.0000	1.1222	0.1699	0.0000	0.1699			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.1222**	**0.0616**	**1.1838**	**0.1699**	**0.0616**	**0.2316**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

3.2 Demolition - 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	0.0263	1.5833	0.4226	7.1000e-003	0.2124	9.9900e-003	0.2224	0.0582	9.5500e-003	0.0678		779.7609	779.7609	0.0430	0.1238	817.7351
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	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0743**	**1.6167**	**0.9647**	**8.5800e-003**	**0.3800**	**0.0110**	**0.3910**	**0.1027**	**0.0105**	**0.1132**		**929.7722**	**929.7722**	**0.0468**	**0.1273**	**968.8726**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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

3.3 Site Preparation - 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	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0576	0.0402	0.6505	1.7800e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		180.0136	180.0136	4.5400e-003	4.1500e-003	181.3650
Total	**0.0599**	**0.1169**	**0.6803**	**2.1500e-003**	**0.2140**	**1.6000e-003**	**0.2156**	**0.0571**	**1.4800e-003**	**0.0585**		**220.0701**	**220.0701**	**5.8800e-003**	**9.9100e-003**	**223.1712**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**8.4034**	**0.0621**	**8.4655**	**4.3188**	**0.0621**	**4.3809**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

3.3 Site Preparation - 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	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0576	0.0402	0.6505	1.7800e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		180.0136	180.0136	4.5400e-003	4.1500e-003	181.3650
Total	**0.0599**	**0.1169**	**0.6803**	**2.1500e-003**	**0.2140**	**1.6000e-003**	**0.2156**	**0.0571**	**1.4800e-003**	**0.0585**		**220.0701**	**220.0701**	**5.8800e-003**	**9.9100e-003**	**223.1712**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1222	0.0000	7.1222	3.4307	0.0000	3.4307			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.1222**	**0.7749**	**7.8971**	**3.4307**	**0.7129**	**4.1437**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

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

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0949	5.7089	1.5238	0.0256	0.7658	0.0360	0.8018	0.2100	0.0345	0.2444		2,811.6380	2,811.6380	0.1550	0.4465	2,948.5640
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.1452**	**5.8192**	**2.0956**	**0.0274**	**0.9463**	**0.0374**	**0.9837**	**0.2581**	**0.0358**	**0.2939**		**3,001.7058**	**3,001.7058**	**0.1601**	**0.4557**	**3,141.5078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					3.0447	0.0000	3.0447	1.4666	0.0000	1.4666			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		0.0484	0.0484		0.0484	0.0484	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**3.0447**	**0.0484**	**3.0932**	**1.4666**	**0.0484**	**1.5151**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

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

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0949	5.7089	1.5238	0.0256	0.7658	0.0360	0.8018	0.2100	0.0345	0.2444		2,811.6380	2,811.6380	0.1550	0.4465	2,948.5640
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.1452**	**5.8192**	**2.0956**	**0.0274**	**0.9463**	**0.0374**	**0.9837**	**0.2581**	**0.0358**	**0.2939**		**3,001.7058**	**3,001.7058**	**0.1601**	**0.4557**	**3,141.5078**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.9100e-003	0.2303	0.0892	1.1200e-003	0.0384	1.1600e-003	0.0396	0.0111	1.1100e-003	0.0122		120.1695	120.1695	4.0300e-003	0.0173	125.4187
Worker	0.1280	0.0892	1.4456	3.9600e-003	0.4471	2.6900e-003	0.4498	0.1186	2.4800e-003	0.1211		400.0302	400.0302	0.0101	9.2300e-003	403.0334
Total	**0.1349**	**0.3195**	**1.5348**	**5.0800e-003**	**0.4855**	**3.8500e-003**	**0.4894**	**0.1296**	**3.5900e-003**	**0.1332**		**520.1996**	**520.1996**	**0.0141**	**0.0265**	**528.4520**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.9100e-003	0.2303	0.0892	1.1200e-003	0.0384	1.1600e-003	0.0396	0.0111	1.1100e-003	0.0122		120.1695	120.1695	4.0300e-003	0.0173	125.4187
Worker	0.1280	0.0892	1.4456	3.9600e-003	0.4471	2.6900e-003	0.4498	0.1186	2.4800e-003	0.1211		400.0302	400.0302	0.0101	9.2300e-003	403.0334
Total	**0.1349**	**0.3195**	**1.5348**	**5.0800e-003**	**0.4855**	**3.8500e-003**	**0.4894**	**0.1296**	**3.5900e-003**	**0.1332**		**520.1996**	**520.1996**	**0.0141**	**0.0265**	**528.4520**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.7000e-003	0.2308	0.0873	1.1000e-003	0.0384	1.1700e-003	0.0396	0.0111	1.1100e-003	0.0122		118.3648	118.3648	4.0400e-003	0.0170	123.5424
Worker	0.1193	0.0797	1.3433	3.8500e-003	0.4471	2.5700e-003	0.4497	0.1186	2.3700e-003	0.1209		388.6920	388.6920	9.1300e-003	8.5900e-003	391.4786
Total	**0.1260**	**0.3104**	**1.4306**	**4.9500e-003**	**0.4855**	**3.7400e-003**	**0.4893**	**0.1296**	**3.4800e-003**	**0.1331**		**507.0568**	**507.0568**	**0.0132**	**0.0256**	**515.0210**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.7000e-003	0.2308	0.0873	1.1000e-003	0.0384	1.1700e-003	0.0396	0.0111	1.1100e-003	0.0122		118.3648	118.3648	4.0400e-003	0.0170	123.5424
Worker	0.1193	0.0797	1.3433	3.8500e-003	0.4471	2.5700e-003	0.4497	0.1186	2.3700e-003	0.1209		388.6920	388.6920	9.1300e-003	8.5900e-003	391.4786
Total	**0.1260**	**0.3104**	**1.4306**	**4.9500e-003**	**0.4855**	**3.7400e-003**	**0.4893**	**0.1296**	**3.4800e-003**	**0.1331**		**507.0568**	**507.0568**	**0.0132**	**0.0256**	**515.0210**

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5100e-003	0.2297	0.0857	1.0800e-003	0.0384	1.1700e-003	0.0396	0.0111	1.1200e-003	0.0122		116.2337	116.2337	4.0700e-003	0.0167	121.3242
Worker	0.1115	0.0715	1.2493	3.7100e-003	0.4471	2.4500e-003	0.4496	0.1186	2.2600e-003	0.1208		375.4510	375.4510	8.2300e-003	8.0200e-003	378.0462
Total	**0.1180**	**0.3012**	**1.3350**	**4.7900e-003**	**0.4855**	**3.6200e-003**	**0.4892**	**0.1296**	**3.3800e-003**	**0.1330**		**491.6847**	**491.6847**	**0.0123**	**0.0248**	**499.3705**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5100e-003	0.2297	0.0857	1.0800e-003	0.0384	1.1700e-003	0.0396	0.0111	1.1200e-003	0.0122		116.2337	116.2337	4.0700e-003	0.0167	121.3242
Worker	0.1115	0.0715	1.2493	3.7100e-003	0.4471	2.4500e-003	0.4496	0.1186	2.2600e-003	0.1208		375.4510	375.4510	8.2300e-003	8.0200e-003	378.0462
Total	**0.1180**	**0.3012**	**1.3350**	**4.7900e-003**	**0.4855**	**3.6200e-003**	**0.4892**	**0.1296**	**3.3800e-003**	**0.1330**		**491.6847**	**491.6847**	**0.0123**	**0.0248**	**499.3705**

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	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8197**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**		**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0557	0.0358	0.6247	1.8600e-003	0.2236	1.2300e-003	0.2248	0.0593	1.1300e-003	0.0604		187.7255	187.7255	4.1100e-003	4.0100e-003	189.0231
Total	**0.0557**	**0.0358**	**0.6247**	**1.8600e-003**	**0.2236**	**1.2300e-003**	**0.2248**	**0.0593**	**1.1300e-003**	**0.0604**		**187.7255**	**187.7255**	**4.1100e-003**	**4.0100e-003**	**189.0231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2194	0.9509	13.5323	0.0189		0.0293	0.0293		0.0293	0.0293	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2194**	**0.9509**	**13.5323**	**0.0189**		**0.0293**	**0.0293**		**0.0293**	**0.0293**	**0.0000**	**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0557	0.0358	0.6247	1.8600e-003	0.2236	1.2300e-003	0.2248	0.0593	1.1300e-003	0.0604		187.7255	187.7255	4.1100e-003	4.0100e-003	189.0231
Total	**0.0557**	**0.0358**	**0.6247**	**1.8600e-003**	**0.2236**	**1.2300e-003**	**0.2248**	**0.0593**	**1.1300e-003**	**0.0604**		**187.7255**	**187.7255**	**4.1100e-003**	**4.0100e-003**	**189.0231**

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	11.6802					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	**11.8511**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.2499	7.4000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		75.0902	75.0902	1.6500e-003	1.6000e-003	75.6093
Total	**0.0223**	**0.0143**	**0.2499**	**7.4000e-004**	**0.0894**	**4.9000e-004**	**0.0899**	**0.0237**	**4.5000e-004**	**0.0242**		**75.0902**	**75.0902**	**1.6500e-003**	**1.6000e-003**	**75.6093**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	11.6802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**11.7099**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

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

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.2499	7.4000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		75.0902	75.0902	1.6500e-003	1.6000e-003	75.6093
Total	**0.0223**	**0.0143**	**0.2499**	**7.4000e-004**	**0.0894**	**4.9000e-004**	**0.0899**	**0.0237**	**4.5000e-004**	**0.0242**		**75.0902**	**75.0902**	**1.6500e-003**	**1.6000e-003**	**75.6093**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0212	0.9970	10.2170	0.0232	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,366.9598	2,366.9598	0.1543	0.0944	2,398.9431
Unmitigated	1.0212	0.9970	10.2170	0.0232	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,366.9598	2,366.9598	0.1543	0.0944	2,398.9431

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	358.40	358.40	358.40	1,224,707	1,224,707
Total	358.40	358.40	358.40	1,224,707	1,224,707

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.537891	0.065289	0.189998	0.126515	0.023567	0.006518	0.011114	0.008084	0.000933	0.000591	0.025474	0.000708	0.003318

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
NaturalGas Unmitigated	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581

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					
Condo/Townhouse	2479.66	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Total		**0.0267**	**0.2285**	**0.0972**	**1.4600e-003**		**0.0185**	**0.0185**		**0.0185**	**0.0185**		**291.7245**	**291.7245**	**5.5900e-003**	**5.3500e-003**	**293.4581**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
Condo/Townhouse	2.47966	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Total		**0.0267**	**0.2285**	**0.0972**	**1.4600e-003**		**0.0185**	**0.0185**		**0.0185**	**0.0185**		**291.7245**	**291.7245**	**5.5900e-003**	**5.3500e-003**	**293.4581**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476
Unmitigated	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1088					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1087	0.9289	0.3953	5.9300e-003		0.0751	0.0751		0.0751	0.0751	0.0000	1,185.8824	1,185.8824	0.0227	0.0217	1,192.9295
Landscaping	0.1386	0.0532	4.6157	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	7.9700e-003		8.5181
Total	**1.4521**	**0.9821**	**5.0110**	**6.1700e-003**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**1,194.2013**	**1,194.2013**	**0.0307**	**0.0217**	**1,201.4476**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1088					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1087	0.9289	0.3953	5.9300e-003		0.0751	0.0751		0.0751	0.0751	0.0000	1,185.8824	1,185.8824	0.0227	0.0217	1,192.9295
Landscaping	0.1386	0.0532	4.6157	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	7.9700e-003		8.5181
Total	**1.4521**	**0.9821**	**5.0110**	**6.1700e-003**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**1,194.2013**	**1,194.2013**	**0.0307**	**0.0217**	**1,201.4476**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

1030 West Foothill Boulevard Residential 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
Condo/Townhouse	56.00	Dwelling Unit	3.05	56,000.00	160

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2026
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 - 56 Condominiums on an approximately 3.05 acre site.

Construction Phase - Construction schedule is provided by the applicant

Trips and VMT - Two vendor trucks has been added both during site preparation and grading phase to account for water truck usage.

Demolition - There is an existing approximately 40,000 square feet of concerete/asphalt paving on site.

Grading - Project is expected to export approximately 7,000 CY of earthwork materials

Vehicle Trips - Trip Generation Rates are based on Traffic Report, by RK Engineering Group, inc. dated September 7, 2022. Weekday rates has veen applied to Weekend rates as conservative analysis.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - According to SCAQMD Rule 445, No wood buring stoves/devices are allowed.

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

Construction Off-road Equipment Mitigation - The project is required to follow SCAQMD Rule 403. The project would use Tier 4 Construction Engines as a standrad design feature.

Area Mitigation - Project is required to comply with SCAQMD Rule 1113.

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintParkingValue	100	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	18.00	30.00
tblConstructionPhase	NumDays	230.00	522.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	20.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	47.60	56.00
tblFireplaces	NumberNoFireplace	5.60	0.00
tblFireplaces	NumberWood	2.80	0.00
tblGrading	MaterialExported	0.00	7,000.00
tblLandUse	LotAcreage	3.50	3.05
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	ST_TR	8.14	6.40
tblVehicleTrips	SU_TR	6.28	6.40
tblVehicleTrips	WD_TR	7.32	6.40
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
2023	2.7236	27.6489	20.5700	0.0571	19.8710	1.2676	21.1386	10.1595	1.1662	11.3257	0.0000	5,869.5197	5,869.5197	1.1985	0.4564	6,032.7604
2024	1.6066	13.7734	17.4927	0.0317	0.4855	0.6171	1.1026	0.1296	0.5804	0.7100	0.0000	3,042.5033	3,042.5033	0.6176	0.0263	3,065.7660
2025	11.8752	12.7891	17.3233	0.0316	0.4855	0.5312	1.0167	0.1296	0.4996	0.6293	0.0000	3,028.6473	3,028.6473	0.6134	0.0253	3,051.5338
Maximum	**11.8752**	**27.6489**	**20.5700**	**0.0571**	**19.8710**	**1.2676**	**21.1386**	**10.1595**	**1.1662**	**11.3257**	**0.0000**	**5,869.5197**	**5,869.5197**	**1.1985**	**0.4564**	**6,032.7604**

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					
2023	0.5385	7.6516	24.2065	0.0571	8.6174	0.0859	8.6811	4.3759	0.0843	4.4394	0.0000	5,869.5197	5,869.5197	1.1985	0.4564	6,032.7604
2024	0.4628	2.5643	18.7861	0.0317	0.4855	0.0445	0.5301	0.1296	0.0443	0.1739	0.0000	3,042.5033	3,042.5033	0.6176	0.0263	3,065.7660
2025	11.7340	2.5542	18.6989	0.0316	0.4855	0.0444	0.5300	0.1296	0.0442	0.1738	0.0000	3,028.6473	3,028.6473	0.6134	0.0253	3,051.5338
Maximum	**11.7340**	**7.6516**	**24.2065**	**0.0571**	**8.6174**	**0.0859**	**8.6811**	**4.3759**	**0.0843**	**4.4394**	**0.0000**	**5,869.5197**	**5,869.5197**	**1.1985**	**0.4564**	**6,032.7604**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	21.41	76.44	-11.38	0.00	53.99	92.76	58.12	55.51	92.31	62.20	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476
Energy	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Mobile	1.0030	1.0756	10.0277	0.0222	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,268.1340	2,268.1340	0.1584	0.0984	2,301.4153
Total	**2.4818**	**2.2863**	**15.1359**	**0.0299**	**2.5788**	**0.1354**	**2.7143**	**0.6870**	**0.1343**	**0.8213**	**0.0000**	**3,754.0598**	**3,754.0598**	**0.1947**	**0.1255**	**3,796.3210**

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	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476
Energy	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Mobile	1.0030	1.0756	10.0277	0.0222	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,268.1340	2,268.1340	0.1584	0.0984	2,301.4153
Total	**2.4818**	**2.2863**	**15.1359**	**0.0299**	**2.5788**	**0.1354**	**2.7143**	**0.6870**	**0.1343**	**0.8213**	**0.0000**	**3,754.0598**	**3,754.0598**	**0.1947**	**0.1255**	**3,796.3210**

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2023	5/19/2023	5	15	
2	Site Preparation	Site Preparation	5/20/2023	5/26/2023	5	5	
3	Grading	Grading	5/27/2023	6/23/2023	5	20	
4	Building Construction	Building Construction	6/24/2023	6/24/2025	5	522	
5	Paving	Paving	6/25/2025	7/18/2025	5	18	
6	Architectural Coating	Architectural Coating	7/19/2025	8/30/2025	5	30	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 113,400; Residential Outdoor: 37,800; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

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

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	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	6	15.00	0.00	182.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	2.00	875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	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

Use Cleaner Engines for Construction Equipment

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6249	0.0000	2.6249	0.3974	0.0000	0.3974			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**2.6249**	**0.9975**	**3.6225**	**0.3974**	**0.9280**	**1.3254**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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

3.2 Demolition - 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	0.0246	1.6531	0.4284	7.1000e-003	0.2124	0.0100	0.2224	0.0582	9.5800e-003	0.0678		780.5828	780.5828	0.0429	0.1240	818.5946
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	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0762**	**1.6900**	**0.9267**	**8.5100e-003**	**0.3800**	**0.0110**	**0.3911**	**0.1027**	**0.0105**	**0.1132**		**922.6859**	**922.6859**	**0.0467**	**0.1277**	**961.8955**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.1222	0.0000	1.1222	0.1699	0.0000	0.1699			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.1222**	**0.0616**	**1.1838**	**0.1699**	**0.0616**	**0.2316**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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

3.2 Demolition - 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	0.0246	1.6531	0.4284	7.1000e-003	0.2124	0.0100	0.2224	0.0582	9.5800e-003	0.0678		780.5828	780.5828	0.0429	0.1240	818.5946
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	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0762**	**1.6900**	**0.9267**	**8.5100e-003**	**0.3800**	**0.0110**	**0.3911**	**0.1027**	**0.0105**	**0.1132**		**922.6859**	**922.6859**	**0.0467**	**0.1277**	**961.8955**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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

3.3 Site Preparation - 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	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0619	0.0444	0.5979	1.6900e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		170.5237	170.5237	4.6000e-003	4.4400e-003	171.9610
Total	**0.0641**	**0.1247**	**0.6286**	**2.0600e-003**	**0.2140**	**1.6000e-003**	**0.2156**	**0.0571**	**1.4800e-003**	**0.0585**		**210.6477**	**210.6477**	**5.9400e-003**	**0.0102**	**213.8393**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**8.4034**	**0.0621**	**8.4655**	**4.3188**	**0.0621**	**4.3809**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

3.3 Site Preparation - 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	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0619	0.0444	0.5979	1.6900e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		170.5237	170.5237	4.6000e-003	4.4400e-003	171.9610
Total	**0.0641**	**0.1247**	**0.6286**	**2.0600e-003**	**0.2140**	**1.6000e-003**	**0.2156**	**0.0571**	**1.4800e-003**	**0.0585**		**210.6477**	**210.6477**	**5.9400e-003**	**0.0102**	**213.8393**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1222	0.0000	7.1222	3.4307	0.0000	3.4307			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.1222**	**0.7749**	**7.8971**	**3.4307**	**0.7129**	**4.1437**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0888	5.9606	1.5447	0.0256	0.7658	0.0361	0.8019	0.2100	0.0345	0.2445		2,814.6016	2,814.6016	0.1546	0.4470	2,951.6632
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.1426**	**6.0780**	**2.0737**	**0.0274**	**0.9463**	**0.0375**	**0.9838**	**0.2581**	**0.0358**	**0.2940**		**2,996.8287**	**2,996.8287**	**0.1598**	**0.4564**	**3,136.8423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					3.0447	0.0000	3.0447	1.4666	0.0000	1.4666			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		0.0484	0.0484		0.0484	0.0484	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**3.0447**	**0.0484**	**3.0932**	**1.4666**	**0.0484**	**1.5151**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

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

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0888	5.9606	1.5447	0.0256	0.7658	0.0361	0.8019	0.2100	0.0345	0.2445		2,814.6016	2,814.6016	0.1546	0.4470	2,951.6632
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.1426**	**6.0780**	**2.0737**	**0.0274**	**0.9463**	**0.0375**	**0.9838**	**0.2581**	**0.0358**	**0.2940**		**2,996.8287**	**2,996.8287**	**0.1598**	**0.4564**	**3,136.8423**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.6700e-003	0.2411	0.0920	1.1200e-003	0.0384	1.1600e-003	0.0396	0.0111	1.1100e-003	0.0122		120.3722	120.3722	4.0100e-003	0.0173	125.6347
Worker	0.1375	0.0986	1.3287	3.7500e-003	0.4471	2.6900e-003	0.4498	0.1186	2.4800e-003	0.1211		378.9414	378.9414	0.0102	9.8600e-003	382.1356
Total	**0.1442**	**0.3397**	**1.4208**	**4.8700e-003**	**0.4855**	**3.8500e-003**	**0.4894**	**0.1296**	**3.5900e-003**	**0.1332**		**499.3136**	**499.3136**	**0.0142**	**0.0272**	**507.7703**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.6700e-003	0.2411	0.0920	1.1200e-003	0.0384	1.1600e-003	0.0396	0.0111	1.1100e-003	0.0122		120.3722	120.3722	4.0100e-003	0.0173	125.6347
Worker	0.1375	0.0986	1.3287	3.7500e-003	0.4471	2.6900e-003	0.4498	0.1186	2.4800e-003	0.1211		378.9414	378.9414	0.0102	9.8600e-003	382.1356
Total	**0.1442**	**0.3397**	**1.4208**	**4.8700e-003**	**0.4855**	**3.8500e-003**	**0.4894**	**0.1296**	**3.5900e-003**	**0.1332**		**499.3136**	**499.3136**	**0.0142**	**0.0272**	**507.7703**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.4500e-003	0.2416	0.0901	1.1000e-003	0.0384	1.1700e-003	0.0396	0.0111	1.1200e-003	0.0122		118.5686	118.5686	4.0200e-003	0.0171	123.7591
Worker	0.1286	0.0880	1.2358	3.6400e-003	0.4471	2.5700e-003	0.4497	0.1186	2.3700e-003	0.1209		368.2358	368.2358	9.2600e-003	9.1700e-003	371.1992
Total	**0.1350**	**0.3296**	**1.3259**	**4.7400e-003**	**0.4855**	**3.7400e-003**	**0.4893**	**0.1296**	**3.4900e-003**	**0.1331**		**486.8044**	**486.8044**	**0.0133**	**0.0263**	**494.9583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	6.4500e-003	0.2416	0.0901	1.1000e-003	0.0384	1.1700e-003	0.0396	0.0111	1.1200e-003	0.0122		118.5686	118.5686	4.0200e-003	0.0171	123.7591
Worker	0.1286	0.0880	1.2358	3.6400e-003	0.4471	2.5700e-003	0.4497	0.1186	2.3700e-003	0.1209		368.2358	368.2358	9.2600e-003	9.1700e-003	371.1992
Total	**0.1350**	**0.3296**	**1.3259**	**4.7400e-003**	**0.4855**	**3.7400e-003**	**0.4893**	**0.1296**	**3.4900e-003**	**0.1331**		**486.8044**	**486.8044**	**0.0133**	**0.0263**	**494.9583**

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2500e-003	0.2405	0.0885	1.0800e-003	0.0384	1.1800e-003	0.0396	0.0111	1.1200e-003	0.0122		116.4375	116.4375	4.0500e-003	0.0168	121.5405
Worker	0.1206	0.0790	1.1502	3.5200e-003	0.4471	2.4500e-003	0.4496	0.1186	2.2600e-003	0.1208		355.7354	355.7354	8.3600e-003	8.5600e-003	358.4953
Total	**0.1268**	**0.3195**	**1.2387**	**4.6000e-003**	**0.4855**	**3.6300e-003**	**0.4892**	**0.1296**	**3.3800e-003**	**0.1330**		**472.1729**	**472.1729**	**0.0124**	**0.0253**	**480.0358**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2500e-003	0.2405	0.0885	1.0800e-003	0.0384	1.1800e-003	0.0396	0.0111	1.1200e-003	0.0122		116.4375	116.4375	4.0500e-003	0.0168	121.5405
Worker	0.1206	0.0790	1.1502	3.5200e-003	0.4471	2.4500e-003	0.4496	0.1186	2.2600e-003	0.1208		355.7354	355.7354	8.3600e-003	8.5600e-003	358.4953
Total	**0.1268**	**0.3195**	**1.2387**	**4.6000e-003**	**0.4855**	**3.6300e-003**	**0.4892**	**0.1296**	**3.3800e-003**	**0.1330**		**472.1729**	**472.1729**	**0.0124**	**0.0253**	**480.0358**

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	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8197**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**		**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

1030 West Foothill Boulevard Residential Project - Los Angeles-South Coast County, Winter

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

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0603	0.0395	0.5751	1.7600e-003	0.2236	1.2300e-003	0.2248	0.0593	1.1300e-003	0.0604		177.8677	177.8677	4.1800e-003	4.2800e-003	179.2476
Total	**0.0603**	**0.0395**	**0.5751**	**1.7600e-003**	**0.2236**	**1.2300e-003**	**0.2248**	**0.0593**	**1.1300e-003**	**0.0604**		**177.8677**	**177.8677**	**4.1800e-003**	**4.2800e-003**	**179.2476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2194	0.9509	13.5323	0.0189		0.0293	0.0293		0.0293	0.0293	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2194**	**0.9509**	**13.5323**	**0.0189**		**0.0293**	**0.0293**		**0.0293**	**0.0293**	**0.0000**	**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

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

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0603	0.0395	0.5751	1.7600e-003	0.2236	1.2300e-003	0.2248	0.0593	1.1300e-003	0.0604		177.8677	177.8677	4.1800e-003	4.2800e-003	179.2476
Total	**0.0603**	**0.0395**	**0.5751**	**1.7600e-003**	**0.2236**	**1.2300e-003**	**0.2248**	**0.0593**	**1.1300e-003**	**0.0604**		**177.8677**	**177.8677**	**4.1800e-003**	**4.2800e-003**	**179.2476**

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	11.6802					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	**11.8511**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0241	0.0158	0.2300	7.0000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		71.1471	71.1471	1.6700e-003	1.7100e-003	71.6991
Total	**0.0241**	**0.0158**	**0.2300**	**7.0000e-004**	**0.0894**	**4.9000e-004**	**0.0899**	**0.0237**	**4.5000e-004**	**0.0242**		**71.1471**	**71.1471**	**1.6700e-003**	**1.7100e-003**	**71.6991**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	11.6802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**11.7099**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0241	0.0158	0.2300	7.0000e-004	0.0894	4.9000e-004	0.0899	0.0237	4.5000e-004	0.0242		71.1471	71.1471	1.6700e-003	1.7100e-003	71.6991
Total	**0.0241**	**0.0158**	**0.2300**	**7.0000e-004**	**0.0894**	**4.9000e-004**	**0.0899**	**0.0237**	**4.5000e-004**	**0.0242**		**71.1471**	**71.1471**	**1.6700e-003**	**1.7100e-003**	**71.6991**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0030	1.0756	10.0277	0.0222	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,268.1340	2,268.1340	0.1584	0.0984	2,301.4153
Unmitigated	1.0030	1.0756	10.0277	0.0222	2.5788	0.0162	2.5951	0.6870	0.0151	0.7021		2,268.1340	2,268.1340	0.1584	0.0984	2,301.4153

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	358.40	358.40	358.40	1,224,707	1,224,707
Total	358.40	358.40	358.40	1,224,707	1,224,707

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.537891	0.065289	0.189998	0.126515	0.023567	0.006518	0.011114	0.008084	0.000933	0.000591	0.025474	0.000708	0.003318

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
NaturalGas Unmitigated	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581

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					
Condo/Townhouse	2479.66	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Total		**0.0267**	**0.2285**	**0.0972**	**1.4600e-003**		**0.0185**	**0.0185**		**0.0185**	**0.0185**		**291.7245**	**291.7245**	**5.5900e-003**	**5.3500e-003**	**293.4581**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					
Condo/Townhouse	2.47966	0.0267	0.2285	0.0972	1.4600e-003		0.0185	0.0185		0.0185	0.0185		291.7245	291.7245	5.5900e-003	5.3500e-003	293.4581
Total		**0.0267**	**0.2285**	**0.0972**	**1.4600e-003**		**0.0185**	**0.0185**		**0.0185**	**0.0185**		**291.7245**	**291.7245**	**5.5900e-003**	**5.3500e-003**	**293.4581**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476
Unmitigated	1.4521	0.9821	5.0110	6.1700e-003		0.1007	0.1007		0.1007	0.1007	0.0000	1,194.2013	1,194.2013	0.0307	0.0217	1,201.4476

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1088					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1087	0.9289	0.3953	5.9300e-003		0.0751	0.0751		0.0751	0.0751	0.0000	1,185.8824	1,185.8824	0.0227	0.0217	1,192.9295
Landscaping	0.1386	0.0532	4.6157	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	7.9700e-003		8.5181
Total	**1.4521**	**0.9821**	**5.0110**	**6.1700e-003**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**1,194.2013**	**1,194.2013**	**0.0307**	**0.0217**	**1,201.4476**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1088					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1087	0.9289	0.3953	5.9300e-003		0.0751	0.0751		0.0751	0.0751	0.0000	1,185.8824	1,185.8824	0.0227	0.0217	1,192.9295
Landscaping	0.1386	0.0532	4.6157	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	7.9700e-003		8.5181
Total	**1.4521**	**0.9821**	**5.0110**	**6.1700e-003**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**1,194.2013**	**1,194.2013**	**0.0307**	**0.0217**	**1,201.4476**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation