

**APPENDIX C  
AIR QUALITY IMPACT  
ANALYSIS REPORT**



**PLANNED DEVELOPMENT  
GENERAL PLAN AMENDMENT,  
ZONING CODE AMENDMENT &  
Alexan Foothills Specific Plan**  
Air Quality and Greenhouse Gas Analysis

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<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
AADT	Annual average daily trips
AB	Assembly Bill
ADT	Average daily trips
AERMAP	terrain preprocessor for AERMOD
AERMET	AERMOD Meteorological Preprocessor
AERMOD	Atmospheric Dispersion Modeling System
AQ	air quality
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
CA	California
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	carbon monoxide
CPF	cancer potency factor
CRP	Coating Restriction Plan
DPM	diesel particulate matter
ED	exposure duration
EF	exposure frequency
EIR	Environmental Impact Report
EMFAC	Emission Factors Model
FAH	Fraction of Time at Home
GHG	greenhouse gas



<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
GP/ZCA	General Plan/Zoning Code Amendment
GVWR	gross vehicle weight rating
H <sub>2</sub> S	hydrogen sulfide
HAP	Hazardous Air Pollutants
HARP	Hot Spots Analysis and Reporting Program
HESIS	Hazard Evaluation System and Information Service
HHDT	heavy-heavy duty trucks
HI	Hazard Index
HRA	Health Risk Assessment
HVAC	Heating, ventilation, and air conditioning
I	Interstate
IARC	International Agency for Research on Cancer
kg	kilogram
LDA	passenger cars
LDT1	light-duty trucks, weight class 0 - 3,750 pounds
LDT2	light-duty trucks, weight class 3,751-5,750 pounds
LHDT1	light-heavy-duty trucks, weight class 8,501-10,000 pounds
LHDT2	light-heavy-duty trucks, weight class 10,001-14,000 pounds
LOS	Level of Service
LST	Localized Significance Threshold
m <sup>3</sup>	cubic meter
MATES	Multiple Air Toxics Exposure Study
MDV	medium-duty truck
MEIR	Maximally Exposed Individual Resident
MERV	Minimum Efficiency Rating Value
mg	milligram
MH	motor home

<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
MHDT	medium-heavy duty diesel truck
mph	miles per hour
MPO	METROpolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO	nitrogen oxide
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
NTP	U.S. National Toxicology Program
O <sub>3</sub>	ozone
OBUS	motor coach bus
OEHHA	Office of Environmental Health Hazard Assessment
PM	particulate matter
PMI	Point of Maximum Impact
ppb	parts per billion
ppm	parts per million
PM <sub>2.5</sub>	fine particulate matter
PM <sub>10</sub>	coarse particulate matter
PMI	point of maximum impact
RAST	Risk Assessment Stand Alone Tool
REL	Reference Exposure Level
ROG	reactive organic gases
ROW	right-of-way
RTP	Regional Transportation Plan
SB	Senate Bill
SBUS	school bus
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

<b>List of Acronyms, Abbreviations, and Symbols</b>	
<b>Acronym / Abbreviation</b>	<b>Full Phrase or Description</b>
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SO <sub>4</sub> <sup>2-</sup>	sulfates
SO <sub>x</sub>	oxides of sulfur
SRA	Source Receptor Area
TAC	Toxic Air Contaminants
TIA	Traffic Impact Analysis
UBUS	urban bus
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
v.	versus
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
µg	micrograms

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# 1 INTRODUCTION

The City of Monrovia (City) is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and has prepared this Draft Environmental Impact Report (DEIR) for a proposed 9.63-acre Planned Development General Plan Amendment (GPA) and Planned Development Zoning Code Amendment (ZCA), as well as a proposed 6.77-acre Alexan Foothills Specific Plan (Specific Plan) within a portion of the area proposed for the GPA and ZCA. This Environmental Impact Report (EIR) includes a program-level review of the proposed GPA and ZCA and a project-level analysis of the Alexan Foothills Specific Plan.

The current land uses within the proposed Project site include a mix of light industrial, warehouse/storage, office, single family residential, private surface parking, and two cellular towers. Project development would generate emissions of air quality and GHG pollutants that could affect air quality and/or contribute to global climate change. MIG, Inc. (MIG) has prepared this Air Quality and Greenhouse Gas Impact Analysis Report (Report) at the request of Trammell Crow Residential. This Report evaluates the potential construction- and operational-related air quality and GHG impacts of the proposed Project using specific information provided by Trammel Crow Residential. Where necessary, MIG has supplemented available information with standardized sources of information, such as model assumptions pertaining to construction equipment activity levels. In general, this Report evaluates the potential “worst-case” conditions associated with the proposed Project’s construction and operational emissions levels to ensure a conservative (i.e., likely to overestimate) assessment of potential air quality and GHG impacts is presented.

This Report is intended for use by the Lead Agency to assess the potential air quality and GHG impacts of the proposed Project in compliance with the California Environmental Quality Act (CEQA; PRC §21000 et seq.) and the State CEQA Guidelines (14 CCR §15000 et seq.), particularly in respect to the air quality and GHG issues identified in Appendix G of the State CEQA Guidelines. This report does not make determinations of significance pursuant to CEQA because such determinations are solely the purview of the Lead Agency.

## 1.1 REPORT ORGANIZATION

This Report is organized as follows:

- **Chapter 1, Introduction**, explains the contents of this Report and its intended use.
- **Chapter 2, Air Quality Setting and Regulatory Framework**, provides pertinent background information on the air quality, describes the existing air quality setting of the proposed Project, and provides information on the federal, state, and local regulations that govern the proposed Project’s air quality setting and potential air quality impacts.
- **Chapter 3, GHG Setting and Regulatory Framework**, provides pertinent background information on GHG and climate change, describes the existing GHG setting of the proposed Project, and provides information on the federal, state, and local regulations that govern the proposed Project’s GHG setting and potential GHG impacts.
- **Chapter 4, Proposed Project Description**, provides an overview of the construction and operational activities associated with the proposed Project.

- **Chapter 5, Air Quality Impact Assessment**, identifies the potential construction and operational air quality impacts of the proposed Project and evaluates these effects in accordance with Appendix G of the State CEQA Guidelines.
- **Chapter 6, GHG Impact Assessment**, identifies the potential construction and operational GHG impacts of the proposed Project and evaluates these effects in accordance with Appendix G of the State CEQA Guidelines.
- **Chapter 7, Report Preparers and References**, list the individuals involved, and the references used, in the preparation of this Report.

## 2 AIR QUALITY SETTING AND REGULATORY FRAMEWORK

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This chapter provides information on the environmental and regulatory air quality setting of the proposed Project. Information on existing air quality conditions, federal and state ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), CARB, and SCAQMD.

### 2.1 ENVIRONMENTAL SETTING

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

#### South Coast Air Basin

The U.S. EPA and CARB are the Federal and State agencies charged with maintaining air quality in the nation and State, respectively. The U.S. EPA delegates much of its authority over air quality to CARB. CARB has geographically divided the State into 15 air basins for the purposes of managing air quality on a regional basis. An air basin is a CARB-designated management unit with similar meteorological and geographic conditions.

The City of Monrovia is located in the South Coast Air Basin (Basin), which includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The Basin encompasses approximately 6,745 square miles of coastal plains, and is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

Air quality in the Basin is managed by the SCAQMD. The SCAQMD is responsible for bringing air quality emissions within the Basin into conformity with Federal and State air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. SCAQMD works with Federal, State, and local agencies to reduce pollutant emissions through adoption and implementation of rules and regulations (see Section 2.3).

#### Basin Climate and Meteorology

The climate of the Los Angeles region is classified as Mediterranean, but weather conditions within the Basin are dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This temperate climate is occasionally interrupted by extremely hot temperatures during the summer, Santa Ana winds during the fall, and storms from the Pacific Northwest during the winter. In addition to the Basin's topography and geographic location, El Niño and La Niña patterns also have large effects on weather and rainfall received between November and March.

The Pacific high-pressure system drives the prevailing winds in the Basin. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases ozone levels. A temperature inversion is created when a layer of cool air is overlain by a layer of warmer air; this can occur over coastal areas when cool, dense air that originates over the ocean is blown onto land and flows underneath the warmer, drier air that is present over land. In the winter, areas throughout the Basin often experience a shallow inversion layer that prevents the dispersion of surface level air pollutants, resulting in higher concentrations of criteria air pollutants such as carbon monoxide

(CO) and oxides of nitrogen (NOX) (see below for a description of regulated air pollutants such as “criteria air pollutants”).

In the fall months, the Basin is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada-Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. These winds are powerful and incessant. A strong Santa Ana wind can easily exacerbate fire conditions, resulting in worsening air quality throughout the Basin, as smoke and ash are pushed into the region.

An El Niño is a warming of the surface waters of the eastern Pacific Ocean. It is a climate pattern that occurs across the tropical Pacific Ocean that is usually associated with drastic weather occurrences, including enhanced rainfall in Southern California. La Niña is a term for cooler than normal sea surface temperatures across the Eastern Pacific Ocean. The Los Angeles region receives less than normal rainfall during La Niña years.

Located in the foothills of the San Gabriel Mountains in the eastern part of the San Gabriel Valley and Los Angeles County, the City of Monrovia consists of approximately 13.7 square miles. It is situated adjacent to the cities of Arcadia, North El Monte, Irwindale, and Duarte. The region experiences a Mediterranean climate characterized by hot dry summers, and cool, mild winters, with precipitation occurring in the winter months. The area is within the Climatic Transition Zone from the moister coastal region to the more arid inland regions of southern California.

### Regulated Air Pollutants

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone (O<sub>3</sub>), particulate matter (PM), which consists of “inhalable coarse” PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or PM<sub>10</sub>) and “fine” PM (particles with an aerodynamic diameter smaller than 2.5 microns, or PM<sub>2.5</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. The U.S. EPA refers to these six common pollutants as “criteria” pollutants because the agency regulates these pollutants on the basis of human health-based and/or environmentally-based criteria because they are known to cause adverse human health effects and/or adverse effects on the environment (U.S. EPA 2019a, b). CARB has also established California Ambient Air Quality Standards (CAAQS) for the six common air pollutants regulated by the Federal Clean Air Act (the CAAQS are more stringent than the NAAQS) plus the following additional air pollutants: hydrogen sulfide (H<sub>2</sub>S), sulfates (SO<sub>x</sub>), vinyl chloride, and visibility reducing particles due to their known adverse effects on human health or the environment (CARB 2019b).

A description of the criteria pollutants associated with the Project and surrounding vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the vicinity of the Project, such as hydrogen sulfide, lead, and visibility-reducing particles, are not described below.

- **Ground-level Ozone**, or smog, is not emitted directly into the atmosphere. It is created from chemical reactions between NO<sub>x</sub> and volatile organic compounds (VOCs), also called Reactive Organic Gases (ROGs), in the presence of sunlight (U.S. EPA 2017c). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO<sub>x</sub> and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis (U.S. EPA 2019c).
  - **ROGs** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,



- and includes several low-reactive organic compounds which have been exempted by the U.S. EPA VOC definition (CARB 2004).
- **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as methane, ethane, and methylene chloride (CARB 2004).
  - **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).
    - **PM<sub>10</sub>**, also known as inhalable coarse, respirable, or suspended PM<sub>10</sub>, consists of particles less than or equal to 10 micrometers in diameter (approximately 1/7<sup>th</sup> the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).
    - **PM<sub>2.5</sub>**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately 1/30<sup>th</sup> the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).
  - **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).
  - **Nitrogen Dioxide (NO<sub>2</sub>)** is a by-product of combustion. NO<sub>2</sub> is not directly emitted but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO<sub>2</sub> are collectively referred to as NO<sub>x</sub> and are major contributors to ozone formation. NO<sub>2</sub> also contributes to the formation of particulate matter. NO<sub>2</sub> can cause breathing difficulties at high concentrations (U.S. EPA 2016c).
  - **Sulfur Dioxide (SO<sub>2</sub>)** is one of a group of highly reactive gases known as SO<sub>x</sub>. Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO<sub>2</sub>. Short-term effects of SO<sub>2</sub> exposure can include adverse respiratory effects such as asthma symptoms. SO<sub>2</sub> and other SO<sub>x</sub> can react to form PM (U.S. EPA 2016d).
  - **Sulfates (SO<sub>4</sub><sup>2-</sup>)** are the fully oxidized ionic form of sulfur. SO<sub>4</sub><sup>2-</sup> are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO<sub>2</sub> during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2009).

Common criteria air pollutants, such as ozone precursors, SO<sub>2</sub>, and particulate matter, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Basin). Other pollutants, such as hazardous air pollutants (HAPs) or toxic air contaminants (TACs) (described in more detail below), and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

#### Ambient Air Quality Standards and Basin Attainment Status

In general, the NAAQS and CAAQS define “clean” air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment (U.S. EPA 2019d, CARB 2019b). Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories:

- **Attainment.** A region is “in attainment” if monitoring shows ambient concentrations of a specific pollutant are less than or equal to NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a “maintenance area” for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and state laws require nonattainment areas to develop strategies, plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.
- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Table 2-1 lists the NAAQS and CAAQS and summarizes the Basin’s attainment status.

**Table 2-1 Ambient Air Quality Standards and Basin Attainment Status**

Pollutant	Averaging Time <sup>(B)</sup>	California Standards <sup>(A)</sup>		National Standards <sup>(A)</sup>	
		Standard <sup>(C)</sup>	Attainment Status <sup>(D)</sup>	Standard <sup>(C)</sup>	Attainment Status <sup>(D)</sup>
Ozone	1-Hour (1979)	--	--	240 $\mu\text{g}/\text{m}^3$	Nonattainment
	1-Hour (Current)	180 $\mu\text{g}/\text{m}^3$	Nonattainment	--	--
	8-Hour (1997)	--	--	160 $\mu\text{g}/\text{m}^3$	Nonattainment
	8-Hour (2008)	--	--	147 $\mu\text{g}/\text{m}^3$	Nonattainment
	8-Hour (Current)	137 $\mu\text{g}/\text{m}^3$	Nonattainment	137 $\mu\text{g}/\text{m}^3$	Pending
PM <sub>10</sub>	24-Hour	50 $\mu\text{g}/\text{m}^3$	Nonattainment	150 $\mu\text{g}/\text{m}^3$	Attainment
	Annual Average	20 $\mu\text{g}/\text{m}^3$	Nonattainment	--	--
PM <sub>2.5</sub>	24-Hour	--	--	35 $\mu\text{g}/\text{m}^3$	Nonattainment
	Annual Average (1997)	--	--	15 $\mu\text{g}/\text{m}^3$	Nonattainment
	Annual Average (Current)	12 $\mu\text{g}/\text{m}^3$	Nonattainment	12 $\mu\text{g}/\text{m}^3$	Nonattainment

Pollutant	Averaging Time <sup>(B)</sup>	California Standards <sup>(A)</sup>		National Standards <sup>(A)</sup>	
		Standard <sup>(C)</sup>	Attainment Status <sup>(D)</sup>	Standard <sup>(C)</sup>	Attainment Status <sup>(D)</sup>
Carbon Monoxide	1-Hour	23,000 µg/m <sup>3</sup>	Attainment	40,000 µg/m <sup>3</sup>	Attainment
	8-Hour	10,000 µg/m <sup>3</sup>	Attainment	10,000 µg/m <sup>3</sup>	Attainment
Nitrogen Dioxide	1-Hour	339 µg/m <sup>3</sup>	Attainment	188 µg/m <sup>3</sup>	Unclassifiable/ Attainment
	Annual Average	57 µg/m <sup>3</sup>	Attainment	100 µg/m <sup>3</sup>	Attainment
Sulfur Dioxide	1-Hour	655 µg/m <sup>3</sup>	Attainment	196 µg/m <sup>3</sup>	Attainment
	24-Hour	105 µg/m <sup>3</sup>	Attainment	367 µg/m <sup>3</sup>	Unclassifiable/ Attainment
	Annual Average	--	--	79 µg/m <sup>3</sup>	Unclassifiable/ Attainment
Lead	3-Months Rolling	--	--	0.15 µg/m <sup>3</sup>	Nonattainment (Partial)
Hydrogen Sulfide	1-Hour	42 µg/m <sup>3</sup>	Attainment	--	
Sulfates	24-Hour	25 µg/m <sup>3</sup>	Attainment	--	
Vinyl Chloride	24-Hour	26 µg/m <sup>3</sup>	Attainment	--	

Source: CARB 2016, SCAQMD 2016a, modified by MIG.

Notes:

- (A) This table summarizes the CAAQS and NAAQS and the Basin's attainments status (as of February 2019). This table does not prevent comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Standards are not presented for visibility reducing particles, which are not concentration-based. The Basin is unclassified for visibility reducing particles.
- (B) Ambient air standards have changed over time. This table presents information on the standards previously used by the U.S. EPA for which the Basin does not meet attainment.
- (C) All standards are shown in terms of micrograms per cubic meter (µg/m<sup>3</sup>) rounded to the nearest whole number for comparison purposes (with the exception of lead, which has a standard less than 1 µg/m<sup>3</sup>). The actual CAAQS and NAAQS standards specify specific units for each pollutant measurement.
- (D) A= Attainment, N= Nonattainment, U=Unclassifiable.

### Hazardous Air Pollutants/Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as Hazardous Air Pollutants (HAPs) (by U.S. EPA) or Toxic Air Contaminants (TACs) (by CARB), respectively. These pollutants can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer) (U.S. EPA 2019a, CARB 2019c). People exposed to HAPs/TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects (U.S. EPA 2019a, CARB 2019c). These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory and other health problems (U.S. EPA 2019a, CARB 2019c).

The U.S. EPA has identified 187 HAPs, including such substances as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs. Since CARB's list of TACs references and includes U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs. A description of the TACs associated with the Project and surrounding vicinity is provided below.

- **Gasoline-Powered Mobile Sources.** According to the SCAQMD's *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (SCAQMD 2015a), or MATES IV, gasoline-powered vehicles emit TACs, such as benzene, which can have adverse health risks. Gasoline-powered sources emit TACs in much smaller amounts than diesel-powered vehicles. The MATES IV study identifies that diesel emissions account for between 68% to 80% of the total air toxics and cancer risk in the Basin.
- **Diesel Particulate Matter (DPM).** Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than 1  $\mu\text{m}$  in diameter, and thus is a subset of  $\text{PM}_{2.5}$ . DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants, including VOCs and  $\text{NO}_x$ . The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surface and in the deepest regions of the lungs where the lung is most susceptible to injury. In 1998, CARB identified DPM as a toxic air contaminant based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as  $\text{PM}_{2.5}$  exposure (CARB 2016c).
- **PM from Wheel-Rail Interaction.** PM may also be generated from friction between rail and locomotive wheels (wheel-rail interaction). This abrasion process can suspend metals such as iron, chromium, manganese, and copper in the form of PM (PCJPB 2015); however, the potential for PM to be generated is dependent on the weight of the train and the conditions of the wheels and track on which the train rides. The Metro Gold Line is commuter rail that consists of an Electric Multiple Unit locomotive system that is lighter than traditional diesel locomotive commuter and freight trains, and in new condition. Thus, while the Metro Gold Line may generate PM from wheel-rail interaction, this contribution is anticipated be minimal (i.e., would not have an appreciable effect on mass emission or health risk estimates) and this issue is not discussed further in this Report.

Common criteria air pollutants, such as ozone precursors,  $\text{SO}_2$ , and PM, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Basin); other pollutants, such as HAPs, TACs, and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

### 2.1.1 Local Air Quality Conditions

The SCAQMD monitors air quality within the Basin. Existing levels of ambient air quality and historical trends within the Project area are best documented by measurements taken by the SCAQMD. The station closest to Monrovia is identified as the East San Gabriel Valley 1 Station (Station #060) by SCAQMD (CARB refers to this station as Azusa). The station is located less than four miles to the east of

Monrovia's boundary and monitors CO, O<sub>3</sub>, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. This monitoring station represents the best approximation of the air quality conditions within the City.

Table 2-2 summarizes the published monitoring data from East San Gabriel Valley 1 monitoring station from 2014 to 2016, the three most recent years for which verified, published data is available from the SCAQMD (2017 data was not yet available as of the time of writing of this EIR). Table 7-2 shows that air quality standards at this location have been exceeded for PM<sub>2.5</sub>, PM<sub>10</sub>, and O<sub>3</sub>. This is consistent with the entire Basin's classification as non-attainment for PM<sub>2.5</sub>, PM<sub>10</sub>, and O<sub>3</sub>. As shown in Table 7-2:

- The maximum 1-hour and 8-hour CO concentration generally decreased from 2014 to 2016. There were no days in which CO standards were exceeded during this time period.
- The maximum 1-hour NO<sub>2</sub> concentration generally increased from 2014 to 2016, while the average annual NO<sub>2</sub> concentration generally decreased. There were no days in which NO<sub>2</sub> standards were exceeded during this time period.
- The maximum 1-hour and 8-hour O<sub>3</sub> concentration, as well as the number of days exceeding O<sub>3</sub> standards, generally increased from 2014 to 2016.
- The maximum 24-hour and average annual PM<sub>10</sub> concentration fluctuated during the 2014 to 2016 period but there were no days/years in which the Federal PM<sub>10</sub> standards were exceeded. The State PM<sub>10</sub> annual standard was exceeded in 2014, 2015, and 2016; however, the annual average PM<sub>10</sub> concentration and the number of days exceeding the state 24-hour standard generally decreased over this time period.
- The maximum 24-hour and average annual PM<sub>2.5</sub> concentration fluctuated during the 2014 to 2016 period but there were no years in which the Federal or State PM<sub>2.5</sub> annual average standards were exceeded. The Federal 24-hour PM<sub>2.5</sub> was exceeded once in 2015.

**Table 2-2 Local Air Quality Conditions (2014 – 2016)**

Pollutant	Ambient Air Standard	Year <sup>(A)</sup>		
		2014	2015	2016
<b>Ozone (O<sub>3</sub>)</b>				
Maximum 1-hour Concentration (ppm)		0.123	0.122	0.146
Maximum 8-hr Concentration (ppm)		0.092	0.096	0.106
Number of Days Exceeding State 1-hr Standard	>180 µg/m <sup>3</sup>	11	21	30
Number of Days Exceeding State 8-hr Standard	>137 µg/m <sup>3</sup>	20	28	40
Days Exceeding Federal 1-hr Standard	>0.124 ppm	0	0	4
Days Exceeding Federal 8-hr Standard	>0.070 ppm	11	27	39
<b>Carbon Monoxide (CO)</b>				
Maximum 1-hr Concentration (ppm)		2	2.1	1.3
Maximum 8-hr Concentration (ppm)		1.9	1.3	1.2
Days Exceeding State 1-hr Standard	>23,000 µg/m <sup>3</sup>	--	--	--
Days Exceeding Federal/State 8-hr Standard	>10,000 µg/m <sup>3</sup>	--	--	--
Days Exceeding Federal 1-hr Standard	>40,000 µg/m <sup>3</sup>	--	--	--

**Table 2-2 Local Air Quality Conditions (2014 – 2016)**

Pollutant	Ambient Air Standard	Year <sup>(A)</sup>		
		2014	2015	2016
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>				
Maximum 1-hr Concentration (ppb)		70.2	71.0	74.2
Annual Arithmetic Mean Concentration (ppb)		17.8	15.4	16.6
Days Exceeding State 1-hr Standard	>180 µg/m <sup>3</sup>	--	--	--
<b>Coarse Particulate Matter (PM<sub>10</sub>)</b>				
Maximum 24-hr Concentration (µg/m <sup>3</sup> )		96	101	74
Annual Arithmetic Mean (µg/m <sup>3</sup> )		44.1	37.1	33.7
Samples Exceeding State 24-hr Standard	>50 µg/m <sup>3</sup>	22	12	12
Samples Exceeding Federal 24-hr Standard	>150 µg/m <sup>3</sup>	0	0	0
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>				
Maximum 24-hr Concentration (µg/m <sup>3</sup> )		32.4	44.3	32.17
Annual Arithmetic Mean (µg/m <sup>3</sup> )		11.63	9.4	10.15
Samples Exceeding Federal 24-hr Standard	>35 µg/m <sup>3</sup>	0	1	0
Source: SCAQMD 2018a, 2018b, 2018c.				
Notes:				
(A) "--" indicates data are not available.				

### 2.1.2 Emissions Sources from Existing Land Uses

The approximately 9.63-acre Project area consists of the approximately 6.77-acre Alexan Foothills Specific Plan and the 2.77-acre ZCA Areas A and C. As described in Chapter 3.0, Project Description, the existing land uses in the Project area consist of a mix of single-family residential (5 total dwelling units), institutional place of worship (approximately 6,630 square feet), and light industrial (approximately 70,750 square feet), one office building, and a warehouse (approximately 10,120 square feet). These existing land uses generate emissions from the following sources:

- **Small “area” sources.** Existing land uses in the Project area generate emissions from small area sources including landscaping equipment and the use of consumer products such as paints, cleaners, and fertilizers that result in the evaporation of chemicals into the atmosphere during product use.
- **Energy use and consumption.** Existing land uses in the Project area generate emissions from the combustion of natural gas in water and space heating equipment, as well as industrial processes.
- **Mobile sources.** Existing land uses in the Project area generate emissions from vehicles travelling to and from the Project.

Emissions from existing land uses in the Project area were estimated using the California Emissions Estimator Model, or CalEEMod, Version 2016.3.2 using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- The default acreage and square footage for each of the Project area's land use types were adjusted to reflect the actual Project area as currently developed.
- The default trip generation rates for the existing land use types were replaced with trip generation rates contained in the Traffic Impact Analysis (TIA) prepared for the proposed Alexan Foothills Specific Plan and the maximum potential development scenario under ZCA Areas A and C (see Chapter 19.0, Transportation and Circulation, and the TIA in Appendix J). The Project TIA provided trip generation rates for peak weekday activities. Accordingly, the average daily traffic rate contained in the TIA was adjusted by a factor of 0.96 to be consistent with State emission inventory methods and to account for reduced weekend trip rates (this provides a more accurate estimate of total annual emissions).
- The default electrical and natural gas energy efficiency intensity values for residential and non-residential land uses were adjusted upwards to reflect the older nature of the existing buildings and structures in the area.
- The default outdoor water use for non-residential land uses was set to zero to reflect the paved nature of the Project area.

Emissions of criteria air pollutants for existing land uses in the Project area are summarized in Table 2-3 below.

As shown in Table 2-3, the existing land uses in the Alexan Foothills Specific Plan area account for between 59% and 76% of the total ROG, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub> dust and PM<sub>2.5</sub> dust generated in the Project area, whereas they only account for approximately 32% and 33% of combined existing PM<sub>10</sub> and PM<sub>2.5</sub> emissions, respectively.

**Table 2-3 Existing Emissions in the Project Area**

Emissions Source	Maximum Daily Pollutant Emissions (Pounds Per Day) <sup>(A)</sup>							
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>		PM <sub>2.5</sub>	
					Dust	Exhaust	Dust	Exhaust
<b>Alexan Foothills Specific Plan Area</b>								
Area	1.82	0.02	0.62	0.00	--	0.08	--	0.08
Energy	0.05	0.41	0.34	0.00	--	0.03	--	0.03
Mobile	1.06	4.92	15.78	0.05	3.36	0.05	0.90	0.95
<b>Subtotal<sup>(B)</sup></b>	<b>2.92</b>	<b>5.35</b>	<b>16.74</b>	<b>0.05</b>	<b>3.36</b>	<b>0.16</b>	<b>0.90</b>	<b>0.16</b>
<b>ZCA Areas A and C</b>								
Area	1.71	0.09	2.37	0.01	--	0.31	--	0.31
Energy	0.02	0.14	0.10	0.00	--	0.01	--	0.01
Mobile	0.34	1.59	5.13	0.01	1.10	0.02	0.29	0.02
<b>Subtotal<sup>(B)</sup></b>	<b>2.07</b>	<b>1.82</b>	<b>7.61</b>	<b>0.02</b>	<b>1.10</b>	<b>0.34</b>	<b>0.29</b>	<b>0.33</b>
<b>Total Project Area</b>								
Area	3.53	0.11	2.99	0.01	--	0.39	--	0.39
Energy	0.07	0.55	0.44	<0.00 <sup>(C)</sup>	--	0.04	--	0.04

Mobile	1.40	6.51	20.91	0.06	4.46	0.07	1.19	0.97
<b>Combined Total<sup>(B)</sup></b>	<b>4.99</b>	<b>7.17</b>	<b>24.35</b>	<b>0.07</b>	<b>4.46</b>	<b>0.50</b>	<b>1.19</b>	<b>0.49</b>

Source: MIG 2019, see Appendix C.

Notes:

(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted. Maximum daily ROG, CO, and SO<sub>2</sub> emissions occur during the summer. Maximum daily NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions occur during the winter.

(B) Totals may not equal due to rounding.

(C) “<0.00” does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

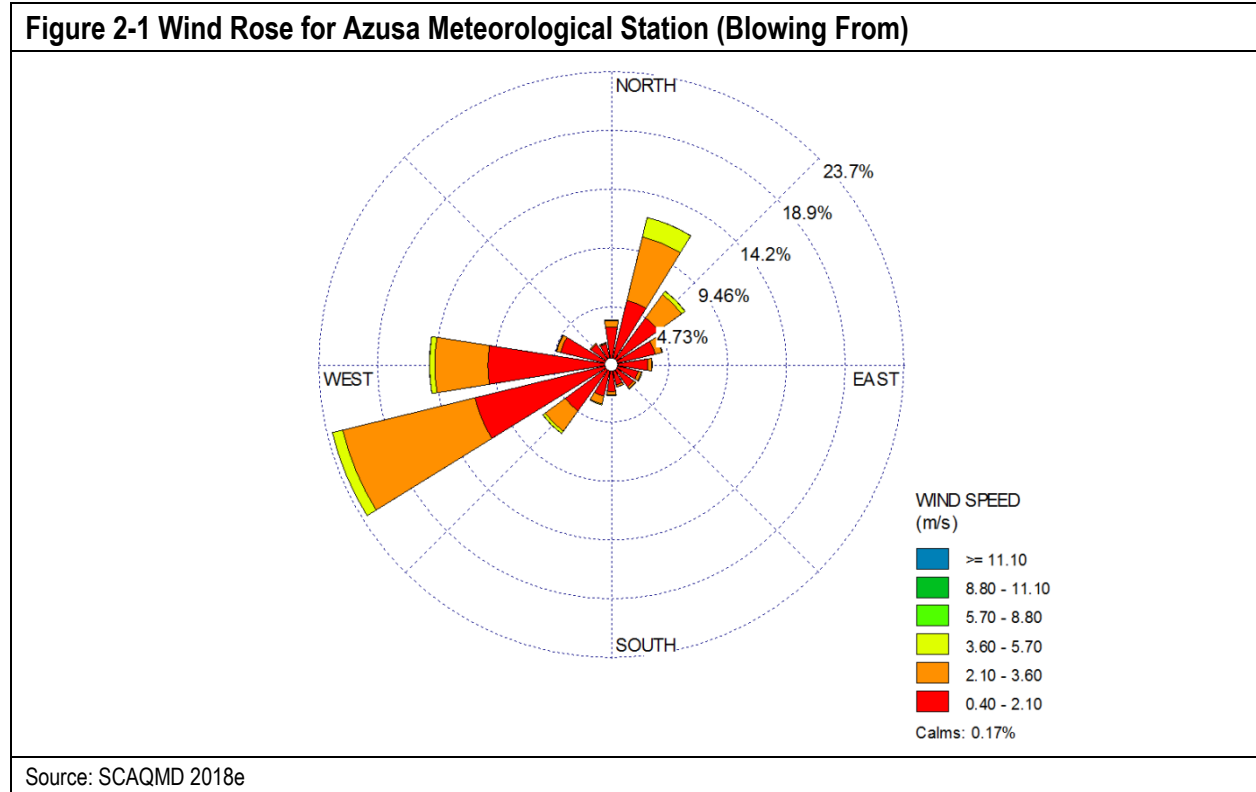
### 2.1.3 Sensitive Air Quality Receptors

The SCAQMD identifies sensitive receptors as populations more susceptible to the effects of air pollution than the general population. Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the SCAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (SCAQMD 2017a; CARB 2005). The potential sensitive air quality receptors adjacent or in close proximity to the perimeter of the Project area (i.e., within 1,000 feet) include:

- Single- and multi-family residential units to the east of the Project area, along South Magnolia Avenue, West Evergreen Avenue, and Pomona Avenue;
- Multi-family residential units to the south of the Project area, across the METRO Gold Line right-of-way (ROW) (accessed via Mayflower Avenue and Genoa Street);
- Single-family residential units to the west of the Project area, along Diamond Street and Mayflower Avenue;
- Single- and multi-family residential units to the north of the Project area, across the I-210, off West Central Avenue and other nearby roads;
- The First Lutheran School, located at 1227 South Magnolia Avenue, approximately 890 feet north of the Project area, across the I-210; and
- Calvary Chapel Monrovia, located at 1401 Highland Ave., approximately 970 feet east of the Project area.

One single-family residence occurs within the Alexan Foothills Specific Plan area that would be demolished. Four single-family residences also occur in the Project area, outside of the Alexan Foothills Specific Plan area, in the portion of the Project area not currently proposed for development. These residences were also considered potential sensitive receptors in this analysis in the event that they are not redeveloped





**Table 2-5 Existing Emissions in the Project Area**

Emissions Source	Maximum Daily Pollutant Emissions (Pounds Per Day) <sup>(A)</sup>							
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>		PM <sub>2.5</sub>	
					Dust	Exhaust	Dust	Exhaust
<b>Alexan Foothills Specific Plan Area</b>								
Area	1.82	0.02	0.62	0.00	--	0.08	--	0.08
Energy	0.05	0.41	0.34	0.00	--	0.03	--	0.03
Mobile	1.06	4.92	15.78	0.05	3.36	0.05	0.90	0.95
Subtotal <sup>(B)</sup>	<b>2.92</b>	<b>5.35</b>	<b>16.74</b>	<b>0.05</b>	<b>3.36</b>	<b>0.16</b>	<b>0.90</b>	<b>0.16</b>
<b>Remaining GP/ZCA Area</b>								
Area	1.71	0.09	2.37	0.01	--	0.31	--	0.31
Energy	0.02	0.14	0.10	0.00	--	0.01	--	0.01
Mobile	0.34	1.59	5.13	0.01	1.10	0.02	0.29	0.02
Subtotal <sup>(B)</sup>	<b>2.07</b>	<b>1.82</b>	<b>7.61</b>	<b>0.02</b>	<b>1.10</b>	<b>0.34</b>	<b>0.29</b>	<b>0.33</b>
<b>Total Project Area</b>								
Area	3.53	0.11	2.99	0.01	--	0.39	--	0.39
Energy	0.07	0.55	0.44	<0.00 <sup>(C)</sup>	--	0.04	--	0.04
Mobile	1.40	6.51	20.91	0.06	4.46	0.07	1.19	0.97
Combined Total <sup>(B)</sup>	<b>4.99</b>	<b>7.17</b>	<b>24.35</b>	<b>0.07</b>	<b>4.46</b>	<b>0.50</b>	<b>1.19</b>	<b>0.49</b>

Source: MIG 2019, see Appendix A.

**Table 2-5 Existing Emissions in the Project Area**

- (D) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted. Maximum daily ROG, CO, and SO<sub>2</sub> emissions occur during the summer. Maximum daily NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions occur during the winter.
- (E) Totals may not equal due to rounding.
- (F) “<0.00” does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

## 2.2 FEDERAL, STATE, AND LOCAL AIR QUALITY REGULATIONS

### 2.2.1 Federal Air Quality Regulations

#### Federal Clean Air Act

The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The Act establishes the U.S. EPA’s responsibilities for protecting and improving the nation’s air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, to achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

The U.S. EPA requires each State prepare and submit a State Implementation Plan (SIP) that consists of background information, rules, technical documentation, and agreements that an individual State will use to attain compliance with the NAAQS within federally-imposed deadlines. State and local agencies implement the plans and rules associated with the SIP, but the rules are also federally enforceable.

### 2.2.2 State Air Quality Regulations

#### California Clean Air Act

In addition to being subject to Federal requirements, air quality in the State is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS. As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

#### On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

CARB’s On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NO<sub>x</sub>, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015.

Replacements with a 2010 model year or newer engine must meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

### **On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation**

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### **CARB Stationary Diesel Engines – Emission Regulations**

In 1998, CARB identified DPM as a TAC. To reduce public exposure to DPM, in 2000, the Board approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments to Airborne Toxic Control Measure for Stationary Compression Ignition Engines and they must be permitted by SCAQMD.

### **CARB Air Quality and Land Use Handbook**

In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Project include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry cleaning operations (dry cleaning with TACs is being phased out and will be prohibited in 2023). The SCAQMD (Regulation 14, Rule 21) has established emission controls for the use of perchloroethylene, the most common dry-cleaning solvent.

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB 2017), that provides

recommendations for strategies to minimize exposure of the public to air pollutants due to proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

### **Air Toxics “Hot Spots” Program**

“Air toxics” are a special class of air pollutants especially harmful to human health, and they include carbon monoxide (CO) and TACs. State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics “Hot Spots” Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics “Hot Spots” Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California’s Children’s Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California’s Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. Environmental Protection Agency (U.S. EPA);
- U.S. National Toxicology Program (NTP);
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

On May 6, 2005, the SCAQMD adopted a *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* containing numerous recommendations focused on land use planning, such as locating sensitive receptors away from substantial sources of TACs and CO hot spots (e.g., high-traffic freeways and roads, distribution centers, refineries, etc.). When locating receptors near large generators of TAC emissions, the SCAQMD recommends conducting CO hot spot analyses and analyzing health risk for these new developments.

California’s Office of Environmental Health Hazard Assessment (OEHHA) has developed procedures for performing “Health Risk Assessments” to evaluate the “likelihood” of emissions of TACs to cause cancer or non-cancer effects (OEHHA 2015). A Health Risk Assessment (or HRA) can also be used to evaluate the impacts of TAC emissions of individual projects on the public, including the likelihood to cause cancer or non-cancer effects. Often these risks are evaluated for sensitive receptors (i.e., residents, including children), as these are the members of the public most sensitive to exposure to TACs.

### 2.2.3 Regional Air Quality Regulations

#### **Southern California Association of Governments**

The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California State Law, established as an association of Local Governments and agencies that voluntarily convene as a forum to address regional issues. SCAG encompasses the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial.

SCAG is designated as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency. Under SB 375, SCAG, as a designated MPO, is required to prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) (SCAG 2016). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Information contained in Chapter 5: The Road to Greater Mobility and Sustainable Growth of the 2016 RTP/SCS forms the basis for the land use and transportation components of the Air Quality Management Plan (AQMP), and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP.

#### **SCAQMD Air Quality Management Plan**

The purpose of an AQMP is to bring an air basin into compliance with federal and state air quality standards and is a multi-tiered document that builds on previously adopted AQMPs. The 2016 AQMP for the Basin, which updated the 2012 AQMP, was approved by the SCAQMD Board of Directors on March 3, 2017. The 2016 AQMP provides new and revised demonstration's for how the SCAQMD, in coordination with Federal, State, Regional and Local Governments will bring the Basin back into attainment for the following NAAQS: 2008 8-hour Ozone; 2012 Annual PM<sub>2.5</sub>; 2006 24-hour PM<sub>2.5</sub><sup>1</sup>; 1997 8-hour Ozone; and 1997 1-hour Ozone.

To achieve the reductions necessary to bring ambient air quality back into attainment the SCAQMD has identified seven primary objectives for the AQMP, which include:

1. Eliminating reliance on unknown future technology measures to demonstrate future attainment of air quality standards;
2. Calculating and accounting for co-benefits associated with measures identified in other, approved planning efforts (e.g., SCAG's RTP/SCS);
3. Developing a strategy with fair-share emission reductions at the Federal, State, and local levels;

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<sup>1</sup> Although the 2006 24-hour PM<sub>2.5</sub> standard was focused on in the 2012 AQMP, it has since been determined, primarily due to unexpected drought conditions, that it is impractical to meet the standard by the original attainment year. Since adoption of the 2012 AQMP, the US EPA approved a re-classification to "serious" non-attainment for the standard, which requires a new attainment demonstration and deadline.

4. Investing in strategies and technologies that meet multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation – especially in disadvantaged communities;
5. Seeking, identifying, and securing significant sources of funding for incentives to implement early deployment and commercialization of zero and near-zero technologies, particularly in the mobile source sector;
6. Enhancing the socioeconomic analysis and selecting the most efficient and cost-effective path to achieve multi-pollutant and deadline targets; and
7. Prioritize non-regulatory, innovative approaches that can contribute to the economic vitality of the regional while maximizing emission reductions.

The emission forecasts and demonstrations presented in the 2016 AMQP rely heavily on information contained in other planning and strategy documents. For example, the 2016 AQMP's long-term emissions inventory is based on the growth and land use(s) projections contained in the SCAG's 2016 RTP/SCS. Additionally, the conclusions relating to ozone compliance are based on implementation of measures presented in CARB's Mobile Source Strategy and SIP strategy. The Mobile Source Strategy outlines a suite of measures targeted at on-road light- and heavy-duty vehicles, off-road equipment, and Federal and international sources. A subset of the Statewide strategy is a mobile source strategy for the South Coast SIP. Because the SCAQMD has limited authority in regulating mobile source emissions, coordination and cooperation between SCAQMD, CARB, and the U.S. EPA is imperative to meeting the NO<sub>x</sub> reductions required to meet ozone standards. Although not incorporated specifically from another planning document strategy, the 2016 AQMP also provides numerous control measures for stationary sources.

### **SCAQMD Rules and Regulations**

The SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of business, processes, operations, and products to implement the AQMP and the various Federal and State air quality requirements. In general, rules that are anticipated to be applicable during buildout of the Project include:

- Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.
- **Rule 445 (Wood Burning Devices)** prohibits installation of woodburning devices such as fireplaces and wood-burning stoves in new development unless the development is located at

an elevation above 3,000 feet or if existing infrastructure for natural gas service is not available within 150-feet of the development.

**Rule 481 (Spray Coating Operations)** imposes equipment and operational restrictions during construction for all spray painting and spray coating operations.

**Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at **260°C (500°F) or lower**.

**Rule 1113 (Architectural Coatings)** establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.

**Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package or repackaging of any consumer paint thinner or multi-purpose solvent for use in the SCAQMD unless consumer paint thinners or other multi-purpose solvents comply with applicable VOC content limits.

**Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** specifies work practice requirements to limit asbestos emissions from building demolitions and renovation activities, including the removal and associated disturbance of asbestos containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, asbestos containing materials handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos containing waste materials.

## 2.2.4 City of Monrovia General Plan

The City of Monrovia's existing General Plan does not establish specific goals, policies, or standards related to air quality; however, the City's Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) included the following mitigation measures related to air quality:

- **AIR-A:** The City shall require applicants to analyze the air quality impacts of construction for each project.
- **AIR-B:** If project-level analysis demonstrates that NO<sub>x</sub> emissions would be significant, the project shall provide a plan, for approval by the City, demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, shall utilize all feasible measures to reduce the emissions to a less than significant level. Acceptable options for reducing emissions may include use of late model low-emission diesel engines, alternative fuels, engine retrofit technology, and/or other options as they become available. The SCAQMD web site provides specific information on mitigation options for off-road and on-road construction equipment.
- **AIR-C:** The following measure shall be incorporated into all project specifications to reduce diesel engine emissions of O<sub>3</sub> precursors including ROG and NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and diesel PM:  
**Idling Restrictions.** Idling of diesel-powered vehicles and equipment shall not be permitted during periods of non-active vehicle use. Diesel-powered engines shall not be allowed to idle for more than 5 consecutive minutes in a 60-minute period when the equipment is not in use, occupied by an operator, or otherwise in motion, except as follows:

- When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control;
- When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment;
- To bring the equipment to the manufacturer's recommended operating temperature;
- When the ambient temperature is below 40 degrees F or above 85 degrees F; or
- When equipment is being repaired.
- **AIR-D:** The City shall require that all new residential fireplaces to be fueled by natural gas. Wood stoves and wood burning fireplaces shall be prohibited.
- **AIR-E:** The City shall require applicants to analyze the potential for creating a local CO hotspot due to traffic congestion that could result from implementation of projects anticipated in the proposed General Plan amendments to the Land Use and Circulation Element.
- **AIR-F:** The City shall require applicants to complete a Health Risk Assessment (HRA) to determine the cancer risk to sensitive receptors for all residential projects located within 500 feet of Interstate 210 (I-210).
- **AIR-G:** The City shall require applicants to assess the potential impacts to children's respiratory health for all residential projects located within 500 feet of I-210.



### 3 GREENHOUSE GAS SETTING AND REGULATORY FRAMEWORK

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This chapter provides information on the environmental and regulatory GHG setting of the proposed Project. Information on existing GHG conditions, relevant standards, and issues of concern was obtained from the U.S. EPA, CARB, and SCAQMD.

#### 3.1 DEFINING CLIMATE CHANGE

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affects the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface.

Elements that indicate that climate change is occurring on Earth include, but are not limited to:

- Rising of global surface temperatures by 1.3°F over the last 100 years;
- Changes in precipitation patterns;
- Melting ice in the Arctic;
- Melting glaciers throughout the world;
- Rising ocean temperatures;
- Acidification of oceans; and
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The Earth's surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it keeps the planet warmer during the nights than without it. Emissions from human activities since the beginning of the industrial revolution (approximately 150 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

##### 3.1.1 Greenhouse Gases

Gases that "trap" heat in the atmosphere and affect regulation of the earth's temperature are known as "greenhouse gases." (GHGs). GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants (discussed in Chapter 7) because climate regulation is global in scale (both in terms of causes and effects).

Some GHGs are emitted to the atmosphere naturally by biological and geological processes, such as evaporation (water vapor), aerobic respiration (carbon dioxide, or CO<sub>2</sub>), and off-gassing from low oxygen

environments, such as swamps or exposed permafrost (methane or CH<sub>4</sub>). However, GHG emissions from human activities, such as fuel combustion (e.g., CO<sub>2</sub>) and refrigerant use (e.g., hydrofluorocarbons or HFCs), significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric CO<sub>2</sub> concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to 409 ppm in April 2018 (NOAA 2018). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific greenhouse gases – CO<sub>2</sub>, CH<sub>4</sub>, nitrous oxide (N<sub>2</sub>O), and sulfur hexafluoride (SF<sub>6</sub>) and two groups of gases – HFCs and perfluorocarbons (PFCs). These GHGs are the primary GHGs emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the earth's temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Descriptions of the most common GHGs are described below.

- **Carbon Dioxide (CO<sub>2</sub>)**. is emitted and removed from the atmosphere naturally. Animal and plant respiration involve the release of CO<sub>2</sub> from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO<sub>2</sub> at the sea surface. CO<sub>2</sub> is also released from plants during wildfires. Volcanic eruptions release a small amount of CO<sub>2</sub> from the Earth's crust.

Human activities that affect CO<sub>2</sub> in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of CO<sub>2</sub> emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO<sub>2</sub>. Emissions from industrial activities also emit CO<sub>2</sub>, such as cement, metal, chemical production, and use of petroleum produced in plastics, solvents, and lubricants.

**Methane (CH<sub>4</sub>)** is emitted from human activities and natural sources. Natural sources of CH<sub>4</sub> include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause CH<sub>4</sub> releases include fossil fuel production, animal digestive processes from farms, manure management, and waste management. CH<sub>4</sub> is produced from landfills as solid waste decomposes. CH<sub>4</sub> is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use.

**Nitrous Oxide (N<sub>2</sub>O)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N<sub>2</sub>O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N<sub>2</sub>O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of N<sub>2</sub>O.

**Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely manmade and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing.

**Sulfur Hexafluoride (SF<sub>6</sub>)** is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF<sub>6</sub> occur during maintenance and servicing as well as from leaks of electrical equipment.

GHGs can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its Global Warming Potential (GWP). The reference gas for measuring GWP is CO<sub>2</sub>, which has a GWP of one. By comparison, CH<sub>4</sub> has a GWP of 25, which means that one molecule of CH<sub>4</sub> has 25 times the effect on global warming as one molecule of CO<sub>2</sub>. Multiplying the estimated emissions for non-CO<sub>2</sub> GHG by their GWP determines their CO<sub>2</sub> equivalent (CO<sub>2</sub>e), which enables a project's combined global warming potential to be expressed in terms of mass CO<sub>2</sub> emissions. The GWPs and estimated atmospheric lifetimes of the common GHG are shown in Table 3-1.

GHG	GWP	GHG	GWP
Carbon Dioxide (CO <sub>2</sub> )	1	Perfluorocarbons (PFCs)	
Methane (CH <sub>4</sub> )	25	CF <sub>4</sub>	6,500
Nitrous Oxide (N <sub>2</sub> O)	298	C <sub>2</sub> F <sub>6</sub>	9,200
Hydrofluorocarbons (HFCs)		C <sub>4</sub> F <sub>10</sub>	7,000
HFC-23	14,800	C <sub>6</sub> F <sub>14</sub>	7,400
HFC-134a	1,430	Sulfur Hexafluoride (SF <sub>6</sub> )	22,800
HFC-152a	140		
HCFC-22	1,700		
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	22,800	

Source: CARB, 2014.  
GWPs are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) 4<sup>th</sup> Assessment Report.

### 3.1.2 Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA 2009).

In July 2012, the CNRA and Emergency management Agency published an update, titled Emergency Management Agency published California Adaptation Planning Guide, which walks local

decision-makers through the steps to create climate vulnerability assessments and adaptation strategies. This guide presents the basis for climate change adaptation planning and introduces a step-by-step process for local and regional climate vulnerability assessment and adaptation strategy development. The guide outlines nine steps in adaptation planning development, the first five steps are a vulnerability assessment which covers: 1) exposure, 2) sensitivity, 3) potential impacts, 4) adaptive capacity, and 5) risk and onset. The last four steps are guiding principles for adaptation strategy development, which are: 6) prioritize adaptive needs, 7) identify strategies, 8) evaluate and prioritize, and 9) phase and implement.

The potential impacts of global climate change in California are detailed below.

### **Public Health and Welfare**

Concerns related to public health and climate change includes higher rates of mortality and morbidity, change in prevalence and spread of disease vectors, decreases in food quality and security, reduced water availability, and increased exposure to pesticides. These concerns are all generally related to increase in ambient outdoor air temperature, particularly in summer.

Higher rates of mortality and morbidity could arise from more frequent heat waves at greater intensities. Health impacts associated with extreme heat events include heat stroke, heat exhaustion, and exacerbation of medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Climate change would result in degradation of air quality promoting the formation of ground-level pollutants, particularly ozone. Degradation of air quality would increase the severity of health impacts from criteria and other air pollutants discussed in Section 2.1.1 (Regulated Air Pollutants). Temperature increases and increases in carbon dioxide are also expected to increase plant production of pollens, spores, and fungus. Pollens and spores could induce or aggravate allergic rhinitis, asthma, and obstructive pulmonary diseases.

Precipitation projections suggest that California will become drier over the next century due to reduced precipitation and increased evaporation from higher temperatures. These conditions could result in increased occurrences of drought. Surface water reductions will increase the need to pump groundwater, reducing supplies and increasing the potential for land subsidence.

Precipitation changes are also suspected to impact the Sierra snowpack (see “Water Management” herein). Earlier snowmelts could coincide with the rainy season and could result in failure of the flood control devices in that region. Flooding can cause property damage and loss of life for those affected. Increased wildfires are also of concern as the State “dries” over time. Wildfires can also cause property damage, loss of life, and injuries to citizens and emergency response services.

Sea-level rises would also threaten human health and welfare. Flood risks will be increased in coastal areas due to strengthened storm surges and greater tidal damage that could result in injury and loss of property and life. Gradual rising of the sea will permanently inundate many coastal areas in the state.

Other concerns related to public health are changes in the range, incidence, and spread of infectious, water-borne, and food-borne diseases. Changes in humidity levels, distribution of surface water, and precipitation changes are all likely to shift or increase the preferred range of disease vectors (i.e. mosquitoes). This could expose more people and animals to potential for vector-borne disease.

### **Biodiversity and Habitat**

Changes in temperature will change the livable ranges of plants and animals throughout the state and cause considerable stress on these species. Species will shift their range if appropriate habitat is

available and accessible if they cannot adapt to their new climate. If they do not adapt or shift, they face local extirpation or extinction. As the climate changes, community compositions and interactions will be interrupted and changed. These have substantial implications on the ecosystems in the state. Extreme events will lead to tremendous stress and displacement on affected species. This could make it easier for invasive species to enter new areas, due to their ability to more easily adapt. Precipitation changes would alter stream flow patterns and affect fish populations during their life cycle. Sea level rises could impact fragile wetland and other coastal habitat.

### **Water Management**

Although disagreement among scientists on long-term precipitation patterns in the State has occurred, it is generally accepted by scientists that rising temperatures will impact California's water supply due to changes in the Sierra Nevada snowpack. Currently, the State's water infrastructure is designed to both gather and convey water from melting snow and to serve as a flood control device. Snowpack melts gradually through spring warming into early summer, releasing an average of approximately 15 million acre-feet of water. The State's concern related to climate change is that due to rising temperatures, snowpack melt will begin earlier in the spring and will coincide with the rainy season. The combination of precipitation and snowmelt would overwhelm the current system, requiring tradeoffs between water storage and flood protection to be made. Reduction in reserves from the Sierra Nevada snowpack is troublesome for California and particularly for Southern California. Approximately 75-percent of California's available water supply originates in the northern third of the state while 80 percent of demand occurs in the southern two-thirds. There is also concern is that rising temperatures will result in decreasing volumes from the Colorado River basin. Colorado River water is important to Southern California because it supplies water directly to Metropolitan Water District of Southern California. Water from the Colorado River is also used to recharge groundwater basins in the Coachella Valley.

### **Agriculture**

California is the most agriculturally productive state in the US resulting in more than 37 billion dollars in revenue in 2008. California is the nation's leading producer of nearly 80 crops and livestock commodities, supplying more than half of the nation's fruit and vegetables and over 90 percent of the nation's production of almonds, apricots, raisin grapes, olives, pistachios, and walnuts. Production of crops is not limited to the Central Valley but also occurs in Southern California. Strawberries and grapes are grown in San Bernardino and Riverside Counties. Orange County and San Diego County also contribute to strawberry production. Cherries are also grown in Los Angeles and Riverside County. Anticipated impacts to agricultural resources are mixed when compared to the potentially increased temperatures, reduced chill hours, and changes in precipitation associated with climate change. For example, wheat, cotton, maize, sunflower, and rice are anticipated to show declining yields as temperatures rise. Conversely, grapes and almonds would benefit from warming temperatures. Anticipated increases in the number and severity in heat waves would have a negative impact on livestock where heat stress would make livestock more vulnerable to disease, infection and mortality. The projected drying trend and changes in precipitation are a threat to agricultural production in California. Reduced water reliability and changes in weather patterns would impact irrigated farmlands and reduce food security. Furthermore, a drying trend would increase wildfire risk. Overall, agriculture in California is anticipated to suffer due to climate change impacts.

### **Forestry**

Increases in wildfires will substantially impact California's forest resources that are prime targets for wildfires. This can increase public safety risks, property damage, emergency response costs, watershed quality, and habitat fragmentation. Climate change is also predicted to affect the behavior or plant species

including seed production, seedling establishment, growth, and vigor due to rising temperatures. Precipitation changes will affect forests due to longer dry periods and moisture deficits and drought conditions that limit seedling and sapling growth. Prolonged drought also weakens trees, making them more susceptible to disease and pest invasion. Furthermore, as trees die due to disease and pest invasion (e.g., the Bark Beetle invasion of the San Bernardino Forest), wildfires can spread more rapidly.

### **Transportation and Energy Infrastructure**

Higher temperatures will require increased cooling, raising energy production demand. Higher temperatures also decrease the efficiency of distributing electricity and could lead to more power outages during peak demand. Climate changes would impact the effectiveness of California's transportation infrastructure as extreme weather events damage, destroy, and impair roadways and railways throughout the state causing governmental costs to increase as well as impacts to human life as accidents increase. Other infrastructure costs and potential impacts to life would increase due to the need to upgrade levees and other flood control devices throughout the state. Infrastructure improvement costs related to climate change adaptation are estimated in the tens of billions of dollars.

#### **3.1.3 Carbon Sequestration**

Carbon sequestration is the process by which plants absorb CO<sub>2</sub> from the atmosphere and store it in biomass like leaves and grasses. Agricultural lands, forests, and grasslands can all sequester carbon dioxide, or emit it. The key is to determine if the land use is emitting carbon dioxide faster than it is absorbing it. Young, fast-growing trees are particularly good at absorbing more than they release and are known as a sink. Agricultural resources often end up being sources of carbon release because of soil management practices. Deforestation contributes to carbon dioxide emissions by removing trees, or carbon sinks, that would otherwise absorb CO<sub>2</sub>. Forests are a crucial part of sequestration in some parts of the world, but not much in the United States. Another form of sequestration is geologic sequestration. This is a manmade process that results in the collection and transport of CO<sub>2</sub> from industrial emitters (i.e. power plants) and injecting it into underground reservoirs.

## **3.2 EXISTING GHG EMISSIONS LEVELS**

### **3.2.1 State GHG Emissions Levels**

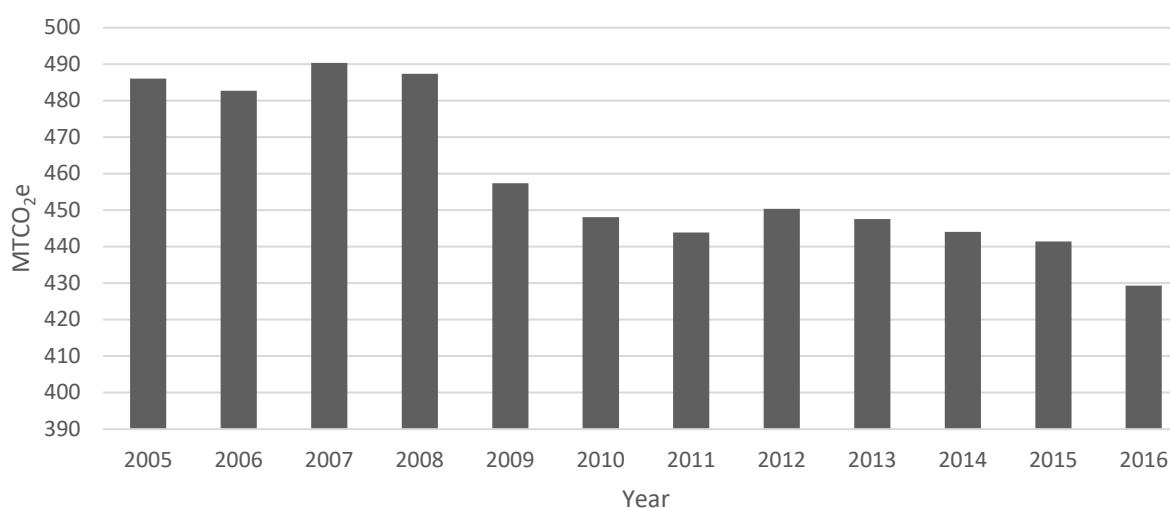
CARB prepares an annual Statewide GHG emissions inventory using Regional, State, and Federal data sources, including facility-specific emissions reports prepared pursuant to the State's Mandatory GHG Reporting Program. The Statewide GHG emissions inventory helps CARB track progress towards meeting the State's Assembly Bill (AB) 32 GHG emissions target of 431 million metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e), as well as to establish and understand trends in GHG emissions<sup>2</sup>. Statewide GHG emissions for the 2005 to 2015 time period are shown Table 3-2.

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<sup>2</sup> CARB approved use of 431 MMCO<sub>2</sub>e as the state's 2020 GHG emission target in May 2014. Previously, the target had been set at 427 MMCO<sub>2</sub>e.

**Table 3-2: 2005 – 2016 Statewide GHG Emissions (Million MTCO<sub>2</sub>e)**

Scoping Plan Sector	Year											
	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16
Agriculture	34	35	36	36	33	34	35	36	35	36	34	34
Commercial/Residential	42	43	43	44	44	45	46	43	44	37	38	39
Electric Power	108	105	114	120	101	90	88	95	90	88	84	69
High GWP	9	10	11	12	12	14	15	16	17	18	19	20
Industrial	96	93	90	91	88	91	91	91	94	94	92	90
Recycling and Waste	8	8	8	8	8	8	8	8	9	9	9	9
Transportation	189	189	189	178	170	165	162	161	161	162	166	169
<b>Total Million MTCO<sub>2</sub>e<sup>(A)</sup></b>	<b>486</b>	<b>483</b>	<b>490</b>	<b>487</b>	<b>457</b>	<b>448</b>	<b>444</b>	<b>450</b>	<b>448</b>	<b>444</b>	<b>441</b>	<b>429</b>

**2005 - 2016 Statewide GHG Emissions (Million MTCO<sub>2</sub>e)**

Source: CARB, 2018

(A) Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' ICC's 4<sup>th</sup> Assessment Report.

As shown in Table 11-2, Statewide GHG emissions have generally decreased over the last decade, with 2015 levels (440 million MTCO<sub>2</sub>e) approximately 10 percent less than 2004 levels (488 million MTCO<sub>2</sub>e). The transportation sector (165 million MTCO<sub>2</sub>e) accounted for more than one-third (approximately 37.5%) of the State's total GHG emissions inventory (440 million MTCO<sub>2</sub>e) in 2015.

### 3.2.2 Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation.

### 3.2.3 Existing Planning Area GHG Emissions

The existing land uses within the Project area contribute to existing City, Regional, and Statewide GHG emissions. The Project area's existing GHG emissions, presented below in Table 11-3, were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. GHG emissions generated within the Project area primarily come from the area, energy, and mobile sources described in Section 2.2.1, , Air Quality, as well as the following additional sources specific to GHG emissions:

- **Energy use and consumption:** Emissions generated from purchased electricity and natural gas. CalEEMod estimates motorized vehicle usage associated with the existing land uses within the Project area result in approximately 2,097,010 total vehicle miles traveled (VMT) for the year 2017.
- **Solid waste disposal:** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod estimates approximately 140.8 tons of solid waste are generated per year by the people working and living within the Project area.
- **Water/wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses within the Project area use approximately 19.4 million gallons of water per year.

The Project area's existing GHG emissions are summarized in Table 3-3 below.

**Table 3-3 Existing GHG Emissions in the Project Area**

Source	GHG Emissions (Metric Tons / Year)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total MTCO <sub>2</sub> e
<b>Alexan Foothills Specific Plan Area</b>				
Area	0.33	<0.00 <sup>(A)</sup>	<0.00 <sup>(A)</sup>	0.35
Energy <sup>(B)</sup>	236.17	0.17	0.59	416.38
Mobile <sup>(C)</sup>	696.7	0.04	0.00	697.7
Waste	22.07	1.30	0.00	54.67
Water	42.18	0.47	0.15	100.13
Subtotal <sup>(D)</sup>	997.45	1.77	0.75	1,269.2
<b>Remaining GP/ZCA Area</b>				
Area	1.31	<0.00 <sup>(A)</sup>	<0.00 <sup>(A)</sup>	1.35
Energy <sup>(A)</sup>	108.91	0.09	0.31	202.16
Mobile <sup>(B)</sup>	227.335	0.013775	0.00	227.7
Waste	6.51	0.38	0.00	16.13



Water	19.33	0.21	0.07	45.81
Subtotal <sup>(D)</sup>	375.36	0.070	0.38	493.2
Combined Total				1,762.4

Source: MIG 2019 (see Appendix A)

Notes:

- (A) “<0.0” does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01, but larger than 0.000.
- (B) The emissions estimated in CalEEMod account for the carbon intensity metrics provided in Southern California Edison’s 2016 Corporate Responsibility and Sustainability Report (SCE 2016) and U.S. Environmental Protection Agency’s eGrid2014v2 emission rates (USEPA 2017).
- (C) CalEEMod 2016.3.2 does not incorporate GHG emissions reductions resulting from the State’s Low Carbon Fuel Standards (LCFS). Although LCFS largely reduces GHG from upstream fuel processing (and not individual tailpipe) the aggregate effect on transportation fuels is a reduction in GHG emissions throughout the state from lower fuel carbon content. Accordingly, this Report’s analysis reduces transportation combustion emissions pursuant to LCFS requirements. Based on the latest estimate available from CARB, the LCFS regulation resulted in a 2.5% reduction in average carbon intensity content in 2016 and should result in a 5% reduction in average carbon intensity in 2018. Thus, CalEEMod transportation emissions were adjusted by multiplying by a factor of .95 to account for the LCFS regulation (CARB 2018a, 2018b).
- (D) Totals may not equal due to rounding.

### 3.3 STATE AND REGIONAL ENERGY SETTING

According to the California Energy Commission’s (CEC) *2015 Integrated Energy Policy Report*, Californians consumed about 280,500 gigawatt hours (GWh) of electricity in 2014 and 13,240 million BTU of natural gas in 2013. The CEC estimates that by 2025, California’s electricity consumption will reach between 297,618 GWh and 322,266 GWh, an annual average growth rate of 0.54 to 1.27 percent (CEC 2015a), and natural gas consumption is expected to reach between 12,673 million and 13,731 million BTU by 2024, an average annual growth rate of -0.4 to 0.33 percent (CEC 2015a).

Approximately 70 percent of California’s electricity is generated from power plants located within the State and from plants in other states but owned by California utilities. About 10 percent is imported from the Pacific Northwest and 20 percent from the American Southwest (CEC 2011). In-state power is attained from 61.1 percent natural gas, 17.1 renewable energy, and 11.7 percent large hydropower.

Due in part to the State’s emphasis on renewable energy, California is second in leading the nation when it comes to net electricity generation from renewable resources. A top producer of electricity from conventional hydroelectric power, California is also a leader in net electricity generation from several other renewable energy sources. In 2016, California generated approximately 73,900 GWh of renewable electricity, accounting for 28.9 percent of the State’s overall electricity sales (CEC 2017a).

In 2016, total electricity use in Los Angeles County was 69,614 million kilowatt hours (kWh), including 48,759 million kWh of consumption for non-residential land uses (CEC 2017b). Natural gas consumption was 286.9 million BTU in 2016, including 175.8 million therms from non-residential uses (CEC 2017c).

### 3.4 FEDERAL, STATE, AND LOCAL CLIMATE CHANGE REGULATIONS

#### 3.4.1 International and Federal GHG Regulations

##### International Regulation and the Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the “United Nations’ Framework Convention on Climate Change” agreement with the goal of controlling

greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

### **Federal Regulation and the Clean Air Act**

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 MTCO<sub>2</sub>e. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a permit pursuant to the “Clean Air Act’s Prevention of Significant Deterioration” or “Title V” operating permit programs. The U.S. EPA’s Greenhouse Gas Reporting Program requires facilities that emit 25,000 MTCO<sub>2</sub>e or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decisionmakers.

### **Current Administration**

President Trump and the U.S. EPA have stated their intent to halt various federal regulatory activities to reduce GHG emission. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

## **3.4.2 State Climate Change Regulations**

### **Executive Order S-3-05**

Executive Order S-3-05 was issued by California Governor Arnold Schwarzenegger and established targets for the reduction of greenhouse gas emission at the milestone years of 2010, 2020, and 2050. Statewide GHG emissions must be reduced to 1990 levels by year 2020 and by 80 percent beyond that by year 2050. The Order requires the Secretary of the Cal-EPA to coordinate with other State departments to identify strategies and reduction programs to meet the identified targets. A Climate Action Team (CAT) was created and is headed by the Secretary of Cal-EPA who reports on the progress of the reduction strategies. The latest CAT Biennial Report to the Governor and Legislature was completed in April 2016.

### **Assembly Bill 32 – California Global Warming Solutions Act and Related GHG Reduction Goals**

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on Statewide greenhouse gas emissions proclaimed in Executive Order S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target is December 31, 2020.

As part of AB 32, CARB determines 1990 GHG emissions levels and projected a “business-as-usual” (BAU)<sup>3</sup> estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a Statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million MTCO<sub>2e</sub> (CARB 2007). In 2008, CARB adopted its Climate Change Scoping Plan, which projects 2020 Statewide GHG emissions levels of 596 million MTCO<sub>2e</sub> and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million MTCO<sub>2e</sub> of GHG reductions and bring Statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, Executive Order B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through Executive Order B-30-15, Governor Brown went on to sign Senate Bill (SB) 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, “protect the State’s most impacted and disadvantaged communities ...[and] consider the social costs of the emissions of greenhouse gases.”

### **Scoping Plan**

The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Plan were to expand and strengthen energy efficiency programs, achieve a Statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners (including seven States in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB 2009). CARB estimated that implementation of these measures will achieve at least 174 million MTCO<sub>2e</sub> of reductions and reduce Statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

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<sup>3</sup> BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

On February 10, 2014, CARB released the public draft of the “First Update to the Scoping Plan.” “The First Update” built upon the 2008 Scoping Plan with new strategies and recommendations, and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. “The First Update” defined CARB’s climate change priorities over the next five years, and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California’s progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. “The First Update” evaluated how to align the State’s long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. “The First Update” to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the 2017 Climate Change Scoping Plan update (CARB 2017c), was adopted by CARB in December 2017. The primary objective for the 2017 Climate Change Scoping Plan is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030) established under Executive Order B-30-15 and SB 32. The 2017 Climate Change Scoping Plan identifies an increased need for coordination among State, Regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the State could result in emissions reductions of up to 45 million MTCO<sub>2e</sub> and 83 million MTCO<sub>2e</sub> by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons by 2050. The major elements of the 2017 Climate Change Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH<sub>4</sub> and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.

### **Senate Bill 375 – Sustainable Communities and Climate Protection Act**

In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California’s 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in

combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the SCAG region were eight percent by year 2020 and 13 percent by year 2035. In September 2010 and February 2011, the eight percent and the 13 percent targets were adopted, respectively.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future*. The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with SB 375. The document contained a host of improvements to the region's multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrated the region's ability to attain and exceed the GHG emission-reduction targets set forth by the CARB and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG's Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS's goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an eight percent reduction in greenhouse gas emissions per capita by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 when compared with 2005 levels. These reductions meet or exceed the State's mandate, which require an eight percent reduction by 2020 and 13 percent by 2035.

### **Executive Order B-30-15 / Senate Bill 32 and Assembly Bill 197**

#### **Assembly Bill 1493**

With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and pro-active approach for dealing with GHG emissions and climate change at the State level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California's related request for a waiver, a waiver has since been granted (CARB 2017b). In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars (ACC) program (formerly known as Pavley II) for model years 2017 through 2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the Zero-Emission Vehicle (ZEV) regulation. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards.

### **Renewables Portfolio Standard (RPS) Program**

In 2002, California established its RPS Program, with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent of retail sales by 2017. The 2003 Integrated Energy Policy Report recommended accelerating that goal to 20 percent by 2010, and the 2004 Energy Report Update further recommended increasing the target to 33 percent by 2020. The State's Energy Action Plan also supported this goal. In 2006 under SB 107, California's 20 percent by 2010 RPS goal was codified. The legislation required retail sellers of electricity to increase renewable energy purchases by at least one percent each year with a target of 20 percent renewables by 2010. Publicly owned utilities set their own RPS goals, recognizing the intent of the legislature to attain the 20 percent by 2010 target.

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08 requiring "[a]ll retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The following year, Executive Order S-21-09 directed the California Air Resources Board, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020. In October 2015, Governor Brown signed SB 350 to codify the ambitious climate and clean energy goals of Executive Order S-14-08. One key provision of SB 350 is for retail sellers and publicly owned utilities to procure "half of the State's electricity from renewable sources by 2030."

Most recently, on September 10, 2018, Governor Brown signed SB 100 and issued Executive Order B-55-18. SB 100 revised the above-described legislation to mandate a 50 percent renewable energy mix by December 31, 2026, achieve a 60 percent renewable energy target by December 31, 2030, as well as call for 100 percent carbon-free electricity by 2045. Executive Order B-55-18 further strengthens California's commitment to clean energy by calling for statewide carbon-neutrality by 2045.

### **Water Conservation in Landscaping Act**

Section 65591 of the Government Code requires all local jurisdictions to adopt a water efficient landscape ordinance. The ordinance is to address water conservation through appropriate use and grouping of plants based on environmental conditions, water budgeting to maximize irrigation efficiency, storm water retention, and automatic irrigation systems. Failure to adopt a water efficiency ordinance requires a local jurisdiction to enforce the provisions of the State's model water efficiency ordinance. In 2009, the Department of Water Resources updated the Model Water Efficient Landscape Ordinance pursuant to amendments to the 1991 Act. These amendments and the new model ordinance went into effect on January 1, 2010. The amended Act is applicable to any new commercial, multi-family, industrial or tract home project containing 2,500 square feet (SF) or more of landscaping. Individual landscape projects of 5,000 SF or more on single-family properties will also be subject to the Act. All landscape plans are required to include calculations verifying conformance with the maximum applied water allowance and must be prepared and stamped by a licensed landscape architect.

### **Title 24 Energy Standards**

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health,

safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, will go into effect on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also propose several smaller improvements in energy efficiency.

### **Biological Diversity v. California Department of Fish and Wildlife**

In its decision in *Center for Biological Diversity v. California Dep’t of Fish and Wildlife (Newhall)* 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a proposed project’s GHG emissions:

1. A calculation of emissions reductions compared to a “business as usual” (BAU) scenario based upon the emissions reductions in CARB’s Scoping Plan, including examination of the data to determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.
2. A lead agency might assess consistency with AB 32’s goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.
3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.
4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

There is no applicable existing numerical threshold of significance for GHG emissions and the *Newhall* decision specifically found that use of a numerical threshold is not required.

### **3.4.3 City of Monrovia Climate Change Regulations**

The City does not have an adopted Climate Action Plan. The City of Monrovia, along with Southern California Edison and Intergy Corporation, prepared an Energy Action Plan that contains goals and specific actions to ensure that sufficient, dependable, and reasonably-priced electrical power and energy supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for the City’s consumers and taxpayers. Appendix A to the Energy Action Plan includes the City’s environmental accords or actions; however, none of these actions are directly applicable to individual development projects. The Energy Action Plan has not been adopted by the City Council.

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## 4 PROPOSED PROJECT DESCRIPTION

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The Zoning Code Amendment will establish a Planned Development Area (PD-27: Station Square West [PD-27]) for the entire 9.63-acre Project area in order to be consistent with the General Plan Amendment. A zone change for 2.86 acres is proposed from Manufacturing to a Planned Development Area to include high density residential development as well as other uses identified in PD-27 for Areas A and C (ZCA Areas A and C). For ZCA Area B, refer to Alexan Foothills Specific Plan below.

While a new zoning designation is proposed for ZCA Areas A and C, the existing uses and structures, would be allowed to remain as legal conforming uses. Although a specific development plan is neither being proposed nor considered at this time for these two areas, the redesignation of PD-27 ZCA Areas A and C could eventually result in development of an additional 82 dwelling units in Area A (based on the 54 dwelling units/acre permitted land use density within the overall 9.63-acre GPA area).

Trammell Crow Residential proposes to implement the Alexan Foothills Specific Plan (ZCA Area B). The Specific Plan area, 6.77 acres in size, is located at 1625 Magnolia Avenue, Monrovia, California (see Figure 4-1 and Figure 4-2). The Specific Plan would allow a 436-unit, five-story apartment complex and an eight-level (seven stories) parking structure, containing 798 stalls.

### 4.1.1 Project Construction

Construction activities, duration, and typical equipment usage was generated using CalEEMod, V. 2016.3.2, and are shown in detail in Section 5.3.1.

#### Alexan Foothills Specific Plan

Approximately 65,190 square feet (sf) of existing structures would be demolished and construction of the proposed Project would involve 7,200 cubic yards (cy) of cut, 10,400 cy of fill, with a net import of 3,200 cy<sup>4</sup>. Construction of the proposed Project is planned to begin in 2020 and expected to take 30 months to complete, with a target construction completion date in 2022.

#### Remaining General Plan/Zoning Code Amendment Area

For the purposes of evaluating air quality and traffic impacts associated with buildout of ZCA Areas A and C, it was assumed that buildout would start in 2021, last approximately 12 months, and involve the demolition of approximately 28,400 square feet of existing building space and associated debris hauling activities.

### 4.1.2 Project Operation

Once constructed, the Project would generate emissions of regulated air pollutants and GHG from area, energy, mobile, off-road, solid waste, and water /wastewater sources. These sources are described in detail in Sections 5.3.2 and 6.2. The proposed Project also includes small stationary sources of emissions such as a back-up generator and a fire pump. The Project is anticipated to be fully operational in early 2022.

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<sup>4</sup> Under a worst-case scenario; grading volumes may be reduced after final design.

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**Legend:**

Yellow screened parcels comprise the Alexan Foothills Specific Plan area.

All other parcels between West Evergreen Avenue, South Magnolia Avenue, South Mayflower

Avenue and the METRO Gold Line (outlined in blue without the yellow shading) comprise the GP/ZCA area.

**Figure 4-1** Proposed Project Aerial

*PD GPA, PD ZCA & Alexan Foothills Specific Plan Project Site, Monrovia, CA*





Source: ©2019 Google

 Project Area

**Figure 4-2 Project Area Map**

PD GPA, PD ZCA, & Alexan Foothills Specific Plan Project

## 5 AIR QUALITY IMPACT ANALYSIS

This chapter evaluates the direct and indirect air quality impacts that could result from implementation of the GPA, ZCA, and Alexan Foothills Specific Plan.

### 5.1 SIGNIFICANCE CRITERIA

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project could result in potentially significant impacts related to air quality if it would:

- (a) Conflict with or obstruct implementation of applicable air quality plan;
- (b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard;
- (c) Expose sensitive receptors to substantial pollutant concentrations (i.e., carbon monoxide hot spots or TACs); or
- (d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### 5.1.1 Regional Significance Thresholds

Consistent with the guidance contained in Appendix G of the State CEQA Guidelines, this Report relies upon SCAQMD-recommended methods and pollutant thresholds to evaluate whether the proposed Project's emissions would violate any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in nonattainment criteria air pollutants. The SCAQMD's recommended thresholds of significance for criteria pollutants are shown in Table 5-1.

<b>Table 5-1: SCAQMD-Recommended Regional Pollutant Thresholds</b>		
<b>Pollutant</b>	<b>Maximum Daily Emissions (lbs/day)</b>	
	<b>Construction</b>	<b>Operation</b>
NO <sub>x</sub>	100	55
VOC/ROG	75	55
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
CO	550	550
Lead	3	3
Source: SCAQMD, 2015b		

#### 5.1.2 Localized Significance Thresholds

In addition to establishing thresholds of significance for emissions of criteria air pollutants on a regional level, the SCAQMD has also developed Localized Significance Thresholds (LSTs) that represent

the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality effects. The LST methodology takes into account a number of factors, including (1) existing ambient air quality in each Source Receptor Area (SRA); (2) how many acres the project would disturb in a day; and (3) how far project construction and operational activities would take place from the nearest sensitive receptor. Unlike the regional emission significance thresholds, LSTs have only been developed for NO<sub>x</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>. This Report evaluates the proposed Project's potential to expose sensitive receptors to substantial pollutant concentrations pursuant to the SCAQMD Final Localized Significance Thresholds Methodology. This methodology provides screening tables for one through five-acre project scenarios, depending on the amount of site disturbance during a day, using the SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (SCAQMD, 2016c). The construction and operational LSTs for one-acre, two-acre, and five-acre sites in SRA 9 (East San Gabriel Valley), the SRA in which the City of Monrovia is located, are shown in Table 5-2.

<b>Table 5-2: SCAQMD Localized Significance Thresholds for Source Receptor Area 9</b>					
<b>Pollutant Monitored</b>	<b>Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary</b>				
	<b>82 Feet</b>	<b>164 Feet</b>	<b>328 Feet</b>	<b>656 Feet</b>	<b>1,640 Feet</b>
<b>ONE-ACRE SITE</b>					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	89	112	159	251	489
Carbon Monoxide (CO)	623	945	1,914	4,803	20,721
Particulate Matter (PM <sub>10</sub> )	5	14	34	75	199
Particulate Matter (PM <sub>2.5</sub> )	3	5	9	22	94
<b>Pollutant Monitored</b>	<b>Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary</b>				
	<b>82 Feet</b>	<b>164 Feet</b>	<b>328 Feet</b>	<b>656 Feet</b>	<b>1,640 Feet</b>
<b>ONE-ACRE SITE</b>					
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	89	112	159	251	489
Carbon Monoxide (CO)	623	945	1,914	4,803	20,721
Particulate Matter (PM <sub>10</sub> )	2	4	9	19	48
Particulate Matter (PM <sub>2.5</sub> )	1	2	3	6	23
<b>TWO-ACRE SITE</b>					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	128	151	200	284	513
Carbon Monoxide (CO)	953	1,344	2,445	5,658	22,093
Particulate Matter (PM <sub>10</sub> )	7	22	42	84	207
Particulate Matter (PM <sub>2.5</sub> )	5	7	12	26	100
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	128	151	200	284	513
Carbon Monoxide (CO)	953	1,344	2,445	5,658	22,093
Particulate Matter (PM <sub>10</sub> )	2	6	11	20	50
Particulate Matter (PM <sub>2.5</sub> )	2	2	3	7	25



<b>Table 5-2: SCAQMD Localized Significance Thresholds for Source Receptor Area 9</b>					
<b>Pollutant Monitored</b>	<b>Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary</b>				
	<b>82 Feet</b>	<b>164 Feet</b>	<b>328 Feet</b>	<b>656 Feet</b>	<b>1,640 Feet</b>
<b>FIVE-ACRE SITE</b>					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	203	227	286	368	584
Carbon Monoxide (CO)	1,733	2,299	3,680	7,600	25,558
Particulate Matter (PM <sub>10</sub> )	14	43	63	105	229
Particulate Matter (PM <sub>2.5</sub> )	8	11	17	35	116
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO <sub>x</sub> )	203	227	286	368	584
Carbon Monoxide (CO)	1,733	2,299	3,680	7,600	25,558
Particulate Matter (PM <sub>10</sub> )	4	11	16	26	55
Particulate Matter (PM <sub>2.5</sub> )	2	3	5	9	28
Source: SCAQMD 2008, modified by MIG 2019					
Note: The localized thresholds for NO <sub>x</sub> in this table account for the conversion of NO to NO <sub>2</sub> . The emission thresholds are based on NO <sub>2</sub> levels, as this is the compound associated with adverse health effects.					

### 5.1.3 Carbon Monoxide “Hot Spot Thresholds”

Historically, to determine whether a project poses the potential for a CO hotspot, the quantitative CO screening procedures provided in the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) were used (UCD ITS 1997). The Protocol determines whether a project may worsen air quality by increasing the percentage of vehicles in cold start modes by two percent or more; significantly increasing traffic volumes by five percent or more; or worsening traffic flow at signalized intersections (by increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F). With new vehicles and improvements in fuels resulting in fewer emissions, the retirement of older polluting vehicles, and new controls and programs, CO concentrations have declined dramatically in California. As a result of emissions controls on new vehicles, the number of vehicles that can idle, and the length of time that vehicles can idle before emissions would trigger a CO impact, has increased. Therefore, the use of LOS as an indicator is no longer applicable for determining CO impacts.

The Bay Area Air Quality Management District (BAAQMD) developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD 2017 pg. 3-4). CO modeling was conducted for the SCAQMD’s 2003 AQMP at four busy intersections during morning and evening peak hour periods as well. The busiest intersection studied in this analysis, Wilshire Boulevard and Veteran Avenue, had 8,062 vehicles per hour during morning peak hours, 7,719 vehicles per hour during evening peak hours, and approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour CO concentration for this intersection was 4.6 ppm, which is less than a fourth of the 1-hour CAAQS CO standard (20 ppm) (SCAQMD 2003a). The BAAQMD screening threshold is generally consistent with the results of the CO modeling conducted for the SCAQMD’s 2003 AQMP.

Therefore, for purposes of this Report, the Project would pose the potential for a CO hotspot if it would exceed the BAAQMD's screening traffic level for peak hour intersection traffic volumes (44,000 vehicles per hour) (thereby having the potential to result in CO concentrations that exceed 1-hour State [20 ppm], 1-hour Federal [35 ppm], and/or State and Federal 8-hour [9 ppm] ambient air quality standards for CO).

#### 5.1.4 Toxic Air Contaminant Thresholds

The SCAQMD recommends preparation of a Health Risk Assessment (HRA) for large commercial or industrial projects to determine the specific health risks posed by long-term emissions of TACs from a project. Following OEHHA and SCAQMD guidance, health risks from TAC emissions are estimated based on "Individual Cancer Risk," which is the likelihood that a person exposed to TACs over 70-year lifetime will get cancer or suffer some other "non-cancer" effect (measured by what is called as a "hazard index"). Numerous weighting factors (e.g., age sensitivity factors, breathing rates, etc.) are applied during health risk calculations to account for those members of the public who may be more sensitive to pollution than others (e.g., sensitive receptors). A project is considered to have a significant effect if it results in any of the following:

- A maximum incremental cancer risk greater than or equal to 10 in one million;
- A population-wide cancer burden greater than 0.5 (in areas where cancer risk is greater than or equal to 1 in one million); or
- A chronic or acute hazard index greater than or equal to 1.0.

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

Consistent with this court ruling, the impact discussion presented below focuses on the proposed Project's effect on air quality and existing health risks, rather than the effect of existing air quality and its potential risks on the proposed Project's residents. The analysis evaluates whether the proposed Project would create or exacerbate adverse public health risk conditions at sensitive receptor locations, as identified in the SCAQMD's CEQA significance criteria.

## 5.2 ANALYSIS METHODOLOGY

Construction and operational emissions associated with buildout of the Project were calculated and evaluated against regional and localized significance thresholds to determine potential impacts on air quality standards, as well as to evaluate potential impacts associated with DPM emissions on sensitive receptors. In addition, a discussion is provided below on the potential for the Project to generate CO



hotspots or objectionable odors. An evaluation of whether the Project is consistent with existing plans and policies protecting air quality is also included below.

For potential environmental impacts, mitigation measures were designed to avoid or reduce each effect to a less than significant level, where possible.

## 5.3 ENVIRONMENTAL IMPACTS

### 5.3.1 Consistency with the SCAQMD AQMP

As described in Section 2.1.3, the proposed Project is within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if the Project:

- 1) Is consistent with the growth assumptions in the AQMP; and
- 2) Does not increase the frequency or severity of an air quality standards violation, or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2016 AQMP. The 2016 AQMP was designed to achieve attainment for all criteria air pollutants within the Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. Therefore, if the growth under the Alexan Foothills Specific Plan and GP/ZCA would be consistent with the regional population, housing, and employment forecasts identified by SCAG in the RTP/SCS, plan implementation would be consistent with the AQMP, even if emissions could potentially exceed the SCAQMD's recommended daily emissions thresholds.

The parcels within the GP/ZCA area but outside the Alexan Foothills Specific Plan area would have a General Plan amendment from a Manufacturing land use designation to a Planned Development area designation and a corresponding zoning change to a Planned Development area that would permit high density residential development. Although a specific project is not proposed for the GP/ZCA, these proposed land use changes could support a total population of 227 residents. The Alexan Foothills Specific Plan would result in 436 residential units for a total population of 942 residents (see Chapter 17, Population and Housing). The 2016 RTP/SCS population and employment projections for the City of Monrovia, as well as the increase in population and employment that would occur with the implementation of the GP/ZCA including the Alexan Foothills Specific Plan, and other City projects that are currently under review, are shown in Table 5-3.

<b>Table 5-3: RTP/SCS and Specific Plan Growth Assumptions for Air Quality Impact Analysis</b>		
<b>Proposed Project</b>	<b>Population</b>	<b>Employment</b>
Alexan Foothills Specific Plan	942	0
GP/ZCA	227	0
Subtotal <sup>1</sup>	1,169	0
<b>Other City Projects</b>		
Other Past, Present, and Future Projects	2,238 <sup>(A)</sup>	565 <sup>(B)</sup>
<b>Total Growth</b>	<b>3,407</b>	<b>564</b>
<b>RTC/SCS Growth 2012 - 2040</b>	<b>3,500</b>	<b>3,600</b>
<b>Within Growth Assumptions?</b>	<b>Yes</b>	<b>Yes</b>
Source: SCAG 2016; MIG 2018		
Notes:		
(A) According to the City's cumulative project list, approved, under-construction, or reasonably foreseeable residential projects (or portions of mixed-use projects). Assuming 20% of these are 2-bedroom units and based on the U.S. Census Bureau estimate of 1.56 people per bedroom (Linscott, Law, and Greenspan 2018).		
(B) According to the City's cumulative project list approved, under-construction, or reasonably foreseeable non-residential projects (or portions of mixed-use projects) and based upon the U.S. Green Building Council's (2008) average SF/employee: General Office is 250 SF/employee, Hotel is 1,500 SF/employee, and General Retail (100,000 SF or less) is 550 SF/employee (Linscott, Law, and Greenspan 2018) .		

As shown in Table 5-3, implementation of the proposed Project, along with other City projects currently under review, would not exceed the growth assumptions contained in the AQMP. Further, implementation of the Alexan Foothills Specific Plan and GP/ZCA would encourage transit-oriented development and support the use of mass transit. Thus, the Project would support AQMP objectives to reduce trips and would aid in the implementation of the AQMP.

Consistency Criterion 2 refers to the CAAQS. SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic, the emissions of which have been modeled by the SCAQMD to determine future air quality conditions. The CO hotspot analysis described in Section 0 below indicates that the proposed Project would not result in a localized CO hotspot and, therefore, would not cause or contribute to an existing or projected air quality violation. In addition, as described in Section 5.3 and Section 5.5.1 below, the construction and operation of the proposed Project would not exceed SCAQMD regional or localized significance thresholds.

For the reasons described above, the proposed Alexan Foothills Specific Plan and GP/ZCA would not conflict with the SCAQMD 2016 AQMP.

### **5.3.2 Result in Cumulatively Considerable Increase in Criteria Air Pollutants**

The proposed Project would generate both short-term construction emissions and long-term operational emissions. The Project's potential emissions were estimated using CalEEMod, V. 2016.3.2. As described in more detail below, with standard conditions and mitigation measures incorporated, the proposed Project would not generate short-term or long-term emissions that exceed SCAQMD-recommended pollutant thresholds.

#### **Regional Construction Emissions**

As described in Section 4.1.1, the proposed Project involves the GPA, ZCA, and Alexan Foothills Specific Plan. The Specific Plan area, 6.77 acres in size, involves the construction of a 436-unit, five-story

apartment complex and an eight-level (seven stories) parking structure, containing 798 stalls. Construction activities would include demolition, site preparation, grading, construction, paving, and architectural coating work. Although a specific development plan is neither being proposed nor considered at this time for those portions of the Project site outside the Specific Plan boundary, the redesignation of the parcels under the GPA and ZCA could eventually result in development of an additional 82 dwelling units in the area outside of the Specific Plan boundary (based on the 54 units/acre permitted land use density within the overall 9.6-acre area).

### **Alexan Foothills Specific Plan Analysis**

The proposed Alexan Foothills Specific Plan's potential construction emissions were modeled using CalEEMod, Version 2016.3.2 (see Appendix A). Construction phase and duration information was provided by the Project Applicant; the type and amount of equipment used during construction was generated using CalEEMod default assumptions and modified as necessary to reflect additional-Project-specific construction activities, including:

- Demolition of approximately 65,190 square feet of existing building space and associated debris hauling activities; and
- Import of 3,200 cubic yards of soil during the Project's grading phase.

The unmitigated maximum daily construction emissions generated by the proposed Alexan Foothills Specific Plan are shown in Table 5-4.

Season	Total Unmitigated Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer 2020	4.90	53.16	41.35	0.11	21.29	12.34
Summer 2021	4.34	29.94	39.08	0.11	7.20	2.62
Summer 2022	86.30	27.44	37.20	0.11	7.04	2.47
Winter 2020	5.03	53.17	39.88	0.11	21.29	12.34
Winter 2021	4.59	30.07	37.71	0.11	7.20	2.62
Winter 2022	86.35	27.55	35.91	0.11	7.05	2.47
SCAQMD CEQA Threshold	75	100	550	150	150	55
Threshold Exceeded?	<b>Yes</b>	No	No	No	No	No

Source: MIG 2019 (see Appendix A).

As shown in Table 5-4, the maximum daily construction emissions generated by the Alexan Foothills Specific Plan would be below applicable SCAQMD thresholds for all pollutants except ROG in 2022, when peak architectural coating application activities would occur.

To reduce potential ROG emissions generated during coating application activities to levels below SCAQMD thresholds, the City would require the applicant to implement standard condition SC AIR-1, which requires the use of SCAQMD Rule 1113 "super compliant" coatings with a lower VOC content than the CalEEMod default assumption, as well as the application of coatings with efficient spray equipment. The

City would also require the Applicant to implement mitigation measure MM AIR-1, which imposes idling restrictions consistent with General Plan EIR Mitigation Measure AIR-C.

The standard VOC content assumption for residential and non-residential coatings is 50 and 100 grams per liter, respectively. Thus, the use of coatings with a VOC content of less than 10 grams per liter of coating would substantially reduce ROG emissions during coating application activities, as shown in Table 5-5.

Season	Total Mitigated Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer 2020	4.90	53.16	41.35	0.11	21.29	12.34
Summer 2021	4.34	29.94	39.08	0.11	7.20	2.62
Summer 2022	17.46	27.44	37.20	0.11	7.04	2.47
Winter 2020	5.03	53.17	39.88	0.11	21.29	12.34
Winter 2021	4.59	30.07	37.71	0.11	7.20	2.62
Winter 2022	17.50	27.55	35.91	0.11	7.05	2.47
SCAQMD CEQA Threshold	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: MIG 2019 (see Appendix A)

As shown in Table 5-5, the maximum daily construction emissions generated by the Alexan Foothills Specific Plan would be below the SCAQMD's regional construction emission thresholds with the inclusion of standard conditions and mitigation measure AIR-1. Thus, the standard conditions and mitigation measure ensure that the Alexan Foothills Specific Plan's regional construction emissions would have a less than significant effect.

### Standard Conditions

**SC AIR-1:** Comply with South Coast Air Quality Rule 1113 to reduce VOC emissions from architectural coating applications. Prior to the issuance of a building permit for the Project, the Applicant shall submit, to the satisfaction of the Planning Division, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines. The Applicant shall include in any construction contracts and/or subcontracts a requirement that Project contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in Project construction meet the SCAQMD "super compliant" coating VOC content standard of less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low pressure spray guns during coating applications to reduce coating waste.

**Requirements and Timing:** Applicant shall receive Planning Division approval of a Coating Restriction Plan (CRP) prior to receipt of building permits.

**Monitoring:** City Planning staff shall conduct site inspections to ensure that the CRP is followed during construction.

### Mitigation Measures

**MM AIR-1: Idling Restrictions:** Idling of diesel-powered vehicles and equipment shall not be permitted during periods of non-active vehicle use. Diesel-powered engines shall not be allowed to idle for more than 5 consecutive minutes in a 60-minute period when the equipment is not in use, occupied by an operator, or otherwise in motion, except as follows:

- When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control;
- When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment;
- To bring the equipment to the manufacturer's recommended operating temperature;
- When the ambient temperature is below 40 degrees F or above 85 degrees F; or
- When equipment is being repaired.

**Requirements and Timing:** Mitigation measure shall be printed on construction drawings and included as a requirement in the construction contract.

**Monitoring:** City Planning staff shall conduct site inspections during construction to ensure that the mitigation measure is adhered to.

### **ZCA Areas A and C**

Construction activities associated with development of ZCA Areas A and C would be similar to that of the Alexan Foothills Specific Plan and include demolition, site preparation, grading, utility trenching, foundation construction, vertical building development, and architectural coating. Construction activities for ZCA Areas A and C are anticipated to be less intense given the lower maximum development potential of ZCA Areas A and C. The combustion of fuel in on- and off-site equipment would generate emissions of ROG, NO<sub>x</sub>, CO and PM. Ground-disturbing activities, such as site preparation, grading, utility trenching, and foundation construction, as well as onsite and offsite travel would generate dust and PM emissions. Architectural coating activities would result in the off-gassing of ROG from paints, coatings, etc. Construction is anticipated to occur over an approximate 12-month period, with initial construction activities assumed to begin in 2021.

The potential construction emissions were modeled using CalEEMod, Version 2016.3.2 (see Appendix A). Construction phase and duration information, as well as the type and amount of equipment used during construction was generated using CalEEMod default assumptions and modified as necessary to reflect additional Project-specific construction activities, including the demolition of approximately 28,400 square feet of existing building space and associated debris hauling activities. The unmitigated maximum daily construction emissions generated by the potential redevelopment of ZCA Areas A and C are shown in Table 5-6.

**Table 5-6: Regional Construction Emissions Estimates for ZCA Areas A and C**

Season	Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer 2021	2.36	20.77	17.53	0.04	3.98	2.39
Summer 2022	52.0	15.89	17.09	0.04	1.52	0.90
Winter 2021	2.40	20.78	17.33	0.04	3.98	2.39
Winter 2022	52.0	15.90	16.91	0.03	1.52	0.90
SCAQMD CEQA Threshold	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: MIG 2019, See Appendix A.

As shown in Table 5-6, the maximum daily construction emissions associated with buildout of ZCA Areas A and C would be below the SCAQMD's recommended regional pollutant thresholds for all pollutants. It is noted that future redevelopment of ZCA Areas A and C would be subject to standard condition SC AIR-1 and the General Plan EIR idling restriction requirements as outlined in mitigation measure MM AIR-1 above.

### Standard Conditions

Refer to SC AIR-1.

### Mitigation Measures

Refer to mitigation measure MM AIR-1.

### **Combined Emissions from Alexan Foothills Specific Plan and ZCA Areas A and C**

This report assumes that construction and operation of the Alexan Foothills Specific Plan and remaining GP/ZCA area would occur simultaneously, meaning that construction and operational emissions for both development projects would overlap and be emitted at the same time. The potential for combined emissions to result in a significant air quality effect on air quality is evaluated below.

The potential combined construction emissions resulting from the concurrent development of the Alexan Foothills Specific Plan and remaining GP/ZCA area are presented in Table 5-7. As shown in Table 5-7, the total emissions associated with simultaneous implementation of the Alexan Foothills Specific Plan and remaining GP/ZCA area would be below the SCAQMD's regional pollutant thresholds for all pollutants with the implementation of standard condition SC AIR-1 and mitigation measure MM AIR-1. Thus, standard condition SC AIR-1 and mitigation measure MM AIR-1 are required for both the Alexan Foothills Specific Plan and the remaining GP/ZCA development and this effect would be less than significant with mitigation.

<b>Table 5-7: Total Combined Regional Construction Emissions for the Alexan Foothills Specific Plan and ZCA Areas A and C</b>						
<b>Season</b>	<b>Maximum Daily Emissions (Pounds Per Day)</b>					
	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>Alexan Foothills Specific Plan Emissions<sup>(A)</sup></b>						
Summer 2021	4.34	29.94	39.08	0.11	7.20	2.62
Summer 2022	17.46	27.44	37.20	0.11	7.04	2.47
Winter 2021	4.59	30.07	37.71	0.11	7.20	2.62
Winter 2022	17.50	27.55	35.91	0.11	7.05	2.47
<b>Remaining GP/ZCA Area Emissions<sup>(B)</sup></b>						
Summer 2021	2.36	20.77	17.53	0.04	3.98	2.39
Summer 2022	52.0	15.89	17.09	0.04	1.52	0.90
Winter 2021	2.40	20.78	17.33	0.04	3.98	2.39
Winter 2022	52.0	15.90	16.91	0.03	1.52	0.90
<b>Total Combined Emissions</b>						
Summer 2021	6.70	50.71	56.61	0.15	11.18	5.01
Summer 2022	69.46	43.33	54.29	0.15	8.56	3.37
Winter 2021	6.99	50.85	55.04	0.15	11.18	5.01
Winter 2022	69.50	43.45	52.82	0.14	8.57	3.37
SCAQMD CEQA Threshold	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Source: MIG 2019 (See Appendix A)						
(A) Alexan Foothills Specific Plan emissions represent mitigated emissions values as shown in Table 5-5.						
(B) GP/ZCA emissions from Table 5-6.						

### **Standard Conditions**

Refer to SC AIR-1.

### **Mitigation Measures**

Refer to mitigation measure MM AIR-1.

### **Regional Operational Emissions**

#### ***Alexan Foothills Specific Plan Analysis***

Once operational, the Alexan Foothills Specific Plan would result in long-term emissions from area, energy, and mobile sources. The net change in emissions of regulated air pollutants that would occur with implementation of the Alexan Foothills Specific Plan was modeled using CalEEMod, Version 2016.3.2. The operation emissions for the Alexan Foothills Specific Plan were modeled based on the Project's first full year of operation (2023), using default data assumptions provided by CalEEMod, with the following Project-specific modifications:

- The default trip generation rates for the existing land use types were replaced with trip generation rates contained in the Traffic Impact Analysis (TIA) prepared for the Project (LSA 2018). The

Project TIA provided trip generation rates for peak weekday activities. Accordingly, the average daily traffic rate contained in the TIA was adjusted by a factor of 0.96 to be consistent with State emission inventory methods and to account for reduced weekend trip rates (this provides a more accurate estimate of total annual emissions).

- The default electrical and natural gas energy efficiency intensity values for residential and non-residential land uses were adjusted downwards to reflect the recent adoption of the 2019 energy efficiency standards.
- Woodstoves and hearths were excluded pursuant to City General Plan requirements and SCAQMD Rule 445 (see standard condition SC AIR-2).
- One 50-horsepower diesel-fueled back-up generator and one 50-horsepower, diesel-fueled fire pump were presumed to be present on-site and operate a total of 18 hours per year.

The net change in long-term operational emissions that would be generated by buildout of the proposed Alexan Foothills Specific Plan is shown in Table 5-8 below.

<b>Table 5-8: Operational Emissions Estimates for the Alexan Foothills Specific Plan</b>						
<b>Emission Scenario</b>	<b>Maximum Daily Emissions (Pounds Per Day)</b>					
	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>Alexan Foothills Specific Plan Buildout Emissions<sup>(A)</sup></b>						
<i>Area Sources</i>	12.20	0.43	36.31	0.00	0.20	0.20
<i>Energy Sources</i>	0.17	1.48	0.63	0.01	0.12	0.12
<i>Mobile Sources</i>	2.88	4.86	40.78	0.14	13.58	3.68
<i>Total Buildout Emissions<sup>(B)</sup></i>	15.25	6.78	77.73	0.15	13.90	4.01
<b>Existing Alexan Foothills Specific Plan Area Emissions</b>						
<i>Total Existing Emissions<sup>(C)</sup></i>	2.92	5.35	16.74	0.05	3.52	1.06
<b>Net Change in Emissions Levels</b>						
<b>Total Net Change</b>	+12.33	+1.43	+60.99	+0.10	+10.38	+2.95
<b>SCAQMD CEQA Threshold</b>	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	No	No	No	No	No	No
Source: MIG 2019 (see Appendix A)						
(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. Maximum daily ROG, CO, SOX emissions occur during the summer. Maximum daily NOX emissions occur during the winter. In general, due to rounding, there is no difference between summer and winter PM10 and PM2.5 emissions levels for the purposes of this table.						
(B) Totals may not equal due to rounding. Stationary sources would add less than 0.000 pounds per day of emissions to the project's area, energy, and mobile source total. Buildout emissions are based upon construction of 439 units assumed in the TIA, versus the proposed 436 units. Therefore, emissions are overestimates.						
(C) See Table 3-2.						

As shown in Table 5-8, the maximum daily operational emissions associated with the proposed Alexan Foothills Specific Plan would not exceed the SCAQMD's recommended regional pollutant thresholds for all pollutants.

### Standard Conditions

**SC AIR-2: Natural Gas Fireplaces.** All residential fireplaces installed shall be fueled by natural gas. Wood stoves and wood burning fireplaces shall be prohibited. (Consistent with General Plan EIR Mitigation Measure AIR-D).



**Requirements and Timing:** Standard condition shall be printed on construction drawings.

**Monitoring:** City Planning staff shall conduct site inspections during construction to confirm condition is adhered to.

### ZCA Areas A and C

The potential redevelopment of ZCA Areas A and C would result in long-term emissions from area, energy, and mobile sources. The net change in emissions of regulated air pollutants that would occur with implementation of potential redevelopment of ZCA Areas A and C was modeled using CalEEMod, Version 2016.3.2. The operational emissions for ZCA Areas A and C were modeled based on a project's anticipated earliest first full year of operation (2023), using default data assumptions provided by CalEEMod, with the following Project-specific modifications:

- The default electrical and natural gas energy efficiency intensity values for residential and non-residential land uses were adjusted downwards to reflect the recent adoption of the 2019 energy efficiency standards.
- Woodstoves and hearths were excluded pursuant to City General Plan requirements and SCAQMD Rule 445 (see standard condition SC AIR-2).
- One 50-horsepower diesel-fueled back-up generator and one 50-horsepower, diesel-fueled fire pump were presumed to be present onsite and operate a total of 18 hours per year.

The potential net change in long-term operational emissions that would be generated by buildout of ZCA Areas A and C is shown in Table 5-9 below.

Emission Scenario	Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
GP/ZCA Buildout Emissions Levels <sup>(A)</sup>						
<i>Area Sources</i>	2.01	1.30	7.29	0.01	0.14	0.14
<i>Energy Sources</i>	0.02	0.20	0.09	0.00	0.02	0.02
<i>Mobile Sources</i>	0.84	1.41	11.86	0.04	3.95	1.07
<i>Total Buildout Emissions<sup>(B)</sup></i>	2.87	2.92	19.24	0.05	4.10	1.22
Existing GP/ZCA Area Emissions Levels						
<i>Total Existing Emissions<sup>(C)</sup></i>	2.07	1.82	7.61	0.02	1.44	0.62
Net Change in Emissions Levels						
Total Net Change	+0.80	+1.10	+11.63	+0.03	+2.66	+0.60
SCAQMD CEQA Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Source: MIG 2019 (see Appendix A).						
(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. Maximum daily ROG, CO, SO <sub>x</sub> emissions occur during the summer. Maximum daily NO <sub>x</sub> , PM <sub>10</sub> and PM <sub>2.5</sub> emissions occur during the winter.						
(B) Totals may not equal due to rounding.						
(C) See Table 3-2.						

As shown in Table 5-9, the maximum daily operational emissions associated with implementation of new development within ZCA Areas A and C would not exceed SCAQMD's regional pollutant thresholds. This effect would be less than significant.

### Standard Conditions

Refer to standard condition SC AIR-2 above.

### Combined Alexan Foothills Specific Plan and ZCA Areas A and C Emissions

The net change in long-term operational emissions that would be generated by the concurrent buildout of the Alexan Foothills Specific Plan and the remaining GP/ZCA area in the earliest full year of operation for both projects (2023) is shown in Table 5-10.

<b>Table 5-10: Long-Term Operational Emissions of Combined Buildout of Alexan Foothills Specific Plan &amp; ZCA Areas A and C</b>						
Emission Scenario	Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Total Emissions from Combined Buildout of Alexan Foothills Specific Plan and ZCA Areas A and C <sup>(A)</sup>						
<i>Area Sources</i>	14.21	1.73	43.6	0.01	0.34	0.34
<i>Energy Sources</i>	0.19	1.68	0.72	0.01	0.14	0.14
<i>Mobile Sources</i>	3.72	6.27	52.64	0.18	17.53	4.75
<i>Total Buildout Emissions<sup>(B)</sup></i>	18.12	9.70	96.97	0.20	18.00	5.23
Total Existing Project Area (Alexan Foothills Specific Plan and ZCA Areas A and C) Emissions <sup>(C)</sup>						
<i>Total Existing Emissions</i>	4.99	7.17	24.35	0.07	4.96	1.68
Total Net Change in Emissions						
Total Net Change	+13.13	+2.53	+72.62	+0.13	+13.04	+3.55
SCAQMD CEQA Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Source: MIG 2019 (see Appendix A).						
(A) Buildout emissions are from Table 5-8 and Table 5-9.						
(B) Totals may not equal due to rounding.						
(C) Existing emissions are from Table 3-2.						

As shown in Table 5-10, the maximum daily emissions from the concurrent operation of the Alexan Foothills Specific Plan and ZCA Areas A and C would not exceed the SCAQMD's recommended regional pollutant thresholds. Therefore, implementation of the proposed Project would not generate operations-related emissions that exceed SCAQMD CEQA thresholds.

### Standard Conditions

Refer to standard condition SC AIR-2 above.

### 5.3.3 Sensitive Receptors and Substantial Pollutant Concentrations

The proposed Project would generate both short-term construction emissions and long-term operational emissions that could impact sensitive residential receptors located near the Project; however, as described in more detail below, the proposed Project would not generate short-term or long-term

emissions that exceed SCAQMD-recommended localized significance thresholds or result in other substantial pollutant concentrations.

### **Localized Significance Thresholds Analysis**

#### **Construction Emissions**

##### ***Alexan Foothills Specific Plan Analysis***

The Alexan Foothills Specific Plan's maximum daily construction emissions are compared against the SCAQMD's-recommended LSTs in Table 5-2. Consistent with the SCAQMD's LST methodology, the emissions included in the construction LST analysis are onsite emissions only, and the LST thresholds against which these onsite emissions are compared are based on the Project size, in acres, as determined using the specific equipment list generated by the CalEEMod project file and the SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (SCAQMD 2016c)<sup>5</sup>. The LST thresholds are for SRA 9 (East San Gabriel Valley), the SRA in which the proposed Alexan Foothills Specific Plan is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

The emissions presented in Table 5-11 incorporate certain best available control measures the Project would be subject to pursuant to SCAQMD Rule 403, Fugitive Dust. Specifically, the CalEEMod project file applies a 60% to 67% total reduction in PM10 and PM2.5 fugitive dust emissions through site watering (three times daily) and replacement of ground cover. These estimated reductions are consistent with the reductions realized by implementation of the numerous best available control measures contained in SCAQMD Rule 403 (also shown as standard condition SC AIR-3).

As shown in Table 5-11, the maximum daily onsite emissions generated during demolition, site preparation, and grading activities associated with the Alexan Foothills Specific Plan would not exceed the SCAQMD's recommended LST thresholds. The onsite emissions levels during all other construction phases (building construction, paving, architectural coating) would be less than the values presented in Table 5-11, and below the SCAQMD's LST thresholds for a one-acre site (a conservative comparison since the Project area is larger than one acre in size).

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<sup>5</sup> According to the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, the maximum number of acres disturbed on the peak day of use per crawler tractor, grader, and rubber tired dozer is 0.5 acres per 8 hour day, while the maximum number of acres disturbed on the peak day of use per scraper is 1 acre per 8 hour day.

<b>Table 5-11: LST Construction Analysis for the Alexan Foothills Specific Plan</b>				
<b>Construction Phase</b>	<b>Maximum Daily Emissions (Pounds per Day)<sup>(A)</sup></b>			
	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub><sup>(E)</sup></b>	<b>PM<sub>2.5</sub><sup>(E)</sup></b>
<b>Demolition</b>				
Maximum Daily Onsite Emissions	33.2	21.8	3.2	1.8
SCAQMD LST Threshold (1.5-Acre) <sup>(B)</sup>	108.5	784.0	6.0	3.9
LST Threshold Exceeded?	No	No	No	No
<b>Site Preparation</b>				
Maximum Daily Emissions	53.1	22.0	7.4	4.9
SCAQMD LST Threshold (2.5-acre) <sup>(C)</sup>	147.5	1,057.4	8.3	5.1
LST Threshold Exceeded?	No	No	No	No
<b>Grading</b>				
Maximum Daily Emissions	26.4	16.1	3.0	2.1
SCAQMD LST Threshold (1.0-Acre) <sup>(D)</sup>	89	623	5	3
Threshold Exceeded?	No	No	No	No
Source: MIG 2019 (see Appendix A)				
(A) Emissions presented are worst-case total emissions and may reflect summer or winter emissions levels.				
(B) Demolition would involve the use of three rubber-tired dozers, which equals a 1.5-acre project site for LST purposes (3*0.5=1.5). Accordingly, a 1.5-acre LST threshold was developed using linear regression.				
(C) Site Preparation would involve the use of two crawler-tractors and three rubber-tired dozers, which equals a 2.5-acre project site for LST purposes (5*0.5=2.5). Accordingly, a 2.5-acre LST threshold was developed using linear regression.				
(D) Grading would involve the use of one grader and one rubber-tired dozer, which equals a 1.0-acre project site for LST purposes (1*0.5)+(1*0.5)=1. Accordingly, a 1-acre LST threshold was used in this evaluation.				
(E) PM emissions assume compliance with SCAQMD Rule 403 best available control measures for site watering and replacing ground cover.				

### Standard Conditions

**SC AIR-3:** Comply with South Coast Air Quality Management District Rule 403, Fugitive Dust, by incorporating best available control measures during construction.

**Requirements and Timing:** Standard condition shall be printed on construction drawings and included as a requirement in the construction contract.

**Monitoring:** City Planning staff shall conduct site inspections during construction to ensure that the standard condition is adhered to.

### ZCA Areas A and C

The potential maximum daily construction emissions for ZCA Areas A and C are compared against the SCAQMD's-recommended LSTs in Table 5-12. Consistent with the SCAQMD's LST methodology, the emissions included in the construction LST analysis are onsite emissions only, and the LST thresholds against which these onsite emissions are compared are based on the Project size, in acres, as determined using the specific equipment list generated by the CalEEMod project file and the SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. The LST thresholds are for SRA 9 (East San

Gabriel Valley), the SRA in which the GP/ZCA is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

The emissions presented in Table 5-12 incorporate certain best available control measures the Project would be subject to pursuant to SCAQMD Rule 403, Fugitive Dust. Specifically, the CalEEMod project file applies an approximate 55% total reduction in PM<sub>10</sub> and PM<sub>2.5</sub> fugitive dust emissions through site watering (once daily). These estimated reductions are consistent with the reductions that would result from the implementation of the best available control measures required by SCAQMD Rule 403 (see standard condition SC AIR-3).

<b>Table 5-12: LST Construction Analysis for ZCA Areas A and C</b>				
<b>Construction Phase</b>	<b>Maximum Daily Emissions (Pounds Per Day)<sup>(A)</sup></b>			
	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub><sup>(E)</sup></b>	<b>PM<sub>2.5</sub><sup>(E)</sup></b>
<b>Demolition</b>				
Maximum Daily Emissions	19.7	14.5	1.4	1.0
SCAQMD LST Threshold (1.0-Acre) <sup>(B)</sup>	89	623	5	3
Threshold Exceeded?	No	No	No	No
<b>Site Preparation</b>				
Maximum Daily Emissions	18.29	10.75	1.42	0.72
SCAQMD LST Threshold (1.5-Acre) <sup>(C)</sup>	108.5	784.0	6.0	3.9
Threshold Exceeded?	No	No	No	No
<b>Grading</b>				
Maximum Daily Emissions	20.21	9.76	3.86	2.36
SCAQMD LST Threshold (1.0-Acre) <sup>(D)</sup>	89	623	5	3
Threshold Exceeded?	No	No	No	No
Source: MIG 2019 (see Appendix A).				
(A) Emissions presented are worst-case total emissions and may reflect summer or winter emissions levels.				
(B) Demolition would involve the use of one rubber-tired dozer, which equals a 1.0-acre project site for LST purposes (the minimum size recommended by the SCAQMD).				
(C) Site Preparation would involve the use of one scraper and one grader, which equals a 1.5-acre project site for LST purposes $(1*1)+(1*0.5)=1.5$ . Accordingly, a 1.5-acre LST threshold was developed using linear regression.				
(D) Grading would involve the use of one grader and one rubber-tired dozer, which equals a 1.0-acre project site for LST purposes $(1*0.5)+(1*0.5)=1.0$ . Accordingly, a 1.0-acre LST threshold was used in the grading LST analysis.				
(E) PM emissions assume compliance with SCAQMD Rule 403 best available control measures for site watering and replacing ground cover.				

As shown in Table 5-12, the maximum daily onsite emissions generated during demolition, site preparation, and grading activities associated with ZCA Areas A and C would not exceed the SCAQMD's recommended LST thresholds. The onsite emissions levels during all other construction phases (building construction, paving, architectural coating) would be less than the values presented in Table 5-13, and below the SCAQMD's LST thresholds for a one-acre site (a conservative comparison since the Project area would be larger than one acre in size).

### Standard Conditions

Refer to SC AIR-3.

### Combined Alexan Foothills Specific Plan and ZCA Areas A and C Emissions

The Alexan Foothills Specific Plan would be constructed over a 30-month period beginning in 2020. The Specific Plan's building construction phase in 2021 and 2022 could overlap with the potential demolition, site preparation, and grading phases associated with potential redevelopment within the GP/ZCA. It is not anticipated that overlapping construction would occur prior to 2021 because there is no current specific project proposed for ZCA Areas A and C. The Specific Plan's building construction phase would add 0.8 pounds per day of total PM<sub>10</sub> and PM<sub>2.5</sub> to the onsite emission estimates presented in Table 5-13 for ZCA Areas A and C. The combined emissions from buildout of the Alexan Foothills Specific Plan and ZCA Areas A and C would not exceed the 1.5-acre LST threshold listed in Table 5-12 (a conservative comparison since actual construction activities would be spread out over the approximately 9.63-acre Project area during this combined construction activity period). Therefore, combined construction emissions during the Alexan Foothills Specific Plan building construction and ZCA Areas A and C grading phases are considered less than significant. The combined emissions during all other potential combined construction phase in 2021 and 2022 would not exceed an applicable LST threshold.

#### Operational Emissions

#### Alexan Foothills Specific Plan Analysis

The Alexan Foothills Specific Plan's maximum daily operational emissions are compared against the SCAQMD's-recommended LSTs in Table 5-13. Consistent with the SCAQMD's LST methodology, the emissions included in the operational LST analysis are onsite emissions only, and the LST thresholds against which these onsite emissions are compared are based on the Project size, in acres. The LST thresholds are for SRA 9 (East San Gabriel Valley), the SRA in which the Alexan Foothills Specific Plan is located and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

Emissions	Maximum Onsite Pollutant Emissions (Pounds Per Day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	0.43	36.31	0.20	0.20
Energy Sources	1.48	0.63	0.12	0.12
Mobile Sources <sup>(A)</sup>	0.10	0.82	0.27	0.07
Stationary Sources	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>
Subtotal Emissions <sup>(C)</sup>	2.01	37.76	0.59	0.39
SCAQMD LST Threshold <sup>(D)</sup>	203	1,733	4	2
Threshold Exceeded?	No	No	No	No

Source: MIG 2019 (see Appendix A).

(A) Mobile source emissions estimates reflect potential onsite vehicle emissions only and were derived by assuming 2% of operational mobile source emissions in Table 5-8 will occur onsite.

(B) "<0.00" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

(C) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table. Buildout emissions are based upon construction of 439 units assumed in the TIA, versus the proposed 436 units. Therefore, emissions are overestimates.

(D) LST threshold is conservatively based on a 5.0-acre project size and 25-meter (82-foot) receptor distance.

As shown in Table 5-13, the maximum daily onsite emissions generated during operation of the proposed Alexan Foothills Specific Plan would not exceed the SCAQMD's recommended LST thresholds.

### Standard Conditions

Refer to standard condition SC AIR-2 above.

### ZCA Areas A and C

The maximum daily operational emissions for ZCA Areas A and C are compared against the SCAQMD's-recommended LSTs in Table 5-14. Consistent with the SCAQMD's LST methodology, the emissions included in the operational LST analysis are onsite emissions only, and the LST thresholds against which these onsite emissions are compared are based on the Project size, in acres. The LST thresholds are for SRA 9 (East San Gabriel Valley), the SRA in which ZCA Areas A and C are located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

Emissions	Maximum Onsite Pollutant Emissions (Pounds Per Day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	1.30	7.29	0.14	0.14
Energy Sources	0.20	0.09	0.02	0.02
Mobile Sources <sup>(A)</sup>	0.03	0.24	0.08	0.02
Stationary Sources	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>
Subtotal Emissions <sup>(C)</sup>	1.53	7.62	0.24	0.18
SCAQMD LST Threshold <sup>(D)</sup>	203	1,733	4	2
Threshold Exceeded?	No	No	No	No

Source: MIG 2019 (see Appendix A).

(A) Mobile source emissions estimates reflect potential onsite vehicle emissions only; and were derived by assuming 2% of operational mobile source emissions in Table 5-9 will occur onsite.

(B) "<0.00" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

(C) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table.

(D) LST threshold is conservatively based on a 2.0-acre project size and 25-meter (82-foot) receptor distance.

### Combined Alexan Foothills Specific Plan and ZCA Areas A and C Emissions

The total combined maximum daily onsite operational emissions resulting from concurrent operation of the Alexan Foothills Specific Plan and ZCA Areas A and C are compared against the SCAQMD's-recommended LSTs in Table 5-15. The LST thresholds are for a five-acre project site (a conservative assumption since the Project area is greater than five acres in size), SRA 9 (East San Gabriel Valley, the SRA in which the Project area is located), and a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

<b>Table 5-15: Combined LST Operational Analysis for the Alexan Foothills Specific Plan and ZCA Areas A and C</b>				
<b>Total Combined Emissions<sup>(A)</sup></b>	<b>Maximum Pollutant Emissions (Pounds Per Day)</b>			
	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Area Sources	1.73	43.6	0.34	0.34
Energy Sources	1.68	0.72	0.14	0.14
Mobile Sources	0.13	1.05	0.35	0.10
Stationary Sources	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>
Subtotal Emissions <sup>(C)</sup>	3.54	45.37	0.83	0.58
SCAQMD LST Threshold (5.0-Acre) <sup>(D)</sup>	203	1,733	4	2
Threshold Exceeded?	No	No	No	No

Source: MIG 2019 (see Appendix A).

(A) Onsite emissions are from Table 5-13 and 5-14 (GP/ZCA).

(B) "<0.00" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

(C) Totals may not equal due to rounding.

(D) LST threshold is conservatively based on a 5.0-acre project size and 25-meter (82-foot) receptor distance.

As shown in Table 5-15, the total combined emissions from onsite operational activities associated with the Alexan Foothills Specific Plan and ZCA Areas A and C would not exceed the SCAQMD's recommended LST thresholds for a five-acre project.

### **Carbon Monoxide Hot Spots**

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near high volume intersections. Several screening procedures have been developed by air districts throughout the state to assess whether a project may result in a CO impact. For example, the Bay Area Air Quality Management District (BAAQMD) developed a screening threshold in 2010 which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis (BAAQMD, 2017 pg. 3-4). Additionally, the SCAQMD's 2003 AQMP and 1992 *Federal Attainment Plan for Carbon Monoxide* demonstrated that CO levels were below the CAAQS at an intersection with a daily traffic volume of up to approximately 100,000 vehicles per day. According to the City's General Plan Circulation and Noise Elements, there are no roadways in the City that experience hourly volumes close to 44,000 vehicles or more or daily volumes of 100,000 vehicles or more. Based on the TIA prepared for the Project (LSA 2018), the maximum number of vehicles moving through any study intersection would be substantially below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis, and would not cause intersection volumes to exceed any the daily threshold (100,000 vehicles). Therefore, the Project would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO.

### **Fugitive Dust and DPM Emissions**

The proposed Project would have the potential to expose existing sensitive receptors present within and near the Project area to fugitive dust and DPM during construction and operation. Construction activities associated with the Project would have the potential to generate fugitive dust and emissions of DPM, a TAC, which could impact sensitive air quality receptors. Operation of the project would generate vehicle DPM emissions in the area, also having the potential to impact sensitive receptors.



In addition, portions of the Project area range from 80 feet to 600 feet south of the I-210, an existing local source of DPM emissions<sup>6</sup>. Buildout of the Alexan Foothills Specific Plan would result in the placement of new sensitive residential receptors within 500 feet of the I-210, and future buildout of the remaining GP/ZCA area would have the potential to place new sensitive residential receptors within 500 feet of the I-210 as well. Pursuant to the California Supreme Court's decision in *CBIA v. BAAQMD* (see Section 2.3.2), the following analysis evaluates whether the Proposed Project would exacerbate the existing health risks associated with I-210 vehicle emissions.

According to the SCAQMD's MATES IV Carcinogenic Risk Map, the existing cancer risk on either side of the I-210 in the vicinity of the Project (south and north of I-210) is 1,456 and 1,142, respectively (i.e., there is a probability of 1,456 and 1,142 cases of cancer out of a population of one million) (SCAQMD 2018d). These cancer risks are orders of magnitude higher than the SCAQMD's significance threshold of 10 cases in one million for cancer risk. These estimates, however, are based upon regional modeling efforts that largely do not account for site specific emission rates and dispersion characteristics that typically result in refined and substantially lower health risk estimates. Therefore, potential health risks associated with vehicle emissions along the I-210 in the Project vicinity were calculated (see below).

CalEnviroScreen is another mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are then mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. According to the OEHHA CalEnviroScreen 3.0 Map, the Project area is in census tract 6037430902 and has an average pollution indicator percentile of 60% to 65% based on the CalEnviroScreen indicators (e.g., exposure, environmental effects, population characteristics, socioeconomic factors) (OEHHA 2018). These numbers also indicate relatively high health risks in the Project area, likely attributable to the proximity to the I-210.

Consistent with the City's 2008 Monrovia General Plan Proposed Land Use and Circulation Elements Update EIR and to determine if the Project would exacerbate health risks associated with DPM emissions in the area, a Health Risk Assessment (HRA) was conducted to evaluate the potential health hazards to new residential receptors in the Project area from the I-210, as well as to children. Emission factor calculations, dispersion model inputs, outputs, and HRA calculations are all contained in the report in Appendix B and Appendix C.

### **Construction Fugitive Dust and DPM Emissions**

Construction activities associated with the proposed Project would result in demolition, site preparation, grading, and other activities that would generate fugitive dust; however, as shown under above, the total PM<sub>10</sub> and PM<sub>2.5</sub> emissions generated during construction of the Project would be below

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<sup>6</sup> Gasoline and diesel-fueled vehicles travelling on the I-210 would emit other TACs besides DPM; however, these other TACs would be emitted in much lower quantities than DPM. In addition, the SCAQMD's MATES IV study continues to identify DPM as the primary contributor to mobile source risks estimates. Accordingly, this Report focuses on the risk from DPM emitted by vehicles travelling on the I-210 as an overall indicator of potential adverse health risks from mobile sources operating near the site.

SCAQMD LST thresholds. The SCAQMD's LST thresholds represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State AAQS. Thus, since Project construction emissions would not exceed applicable LST thresholds, the proposed Project would not expose sensitive receptors to substantial fugitive dust concentrations.

A portion of the PM<sub>10</sub> and PM<sub>2.5</sub> emissions generated during construction of the Alexan Foothills Specific Plan (Table 5-11) and ZCA Areas A and C (Table 5-12) would be DPM. DPM is a TAC that can potentially cause substantial adverse health risks at concentrations lower than the ambient air quality standards for PM<sub>10</sub> and PM<sub>2.5</sub> set by the Federal and State CAA. Equipment with diesel engines would be used during all phases of development of the proposed Alexan Foothills Specific Plan and ZCA Areas A and C, and some construction activities would occur as close as approximately 60 feet away from sensitive receptor locations (e.g., receptors across Mayflower Avenue, S. Magnolia Avenue, and the Metro Gold Line ROW), although most construction activities on the interior of the Alexan Foothills Specific Plan and ZCA Areas A and C would occur several hundred feet or more from sensitive receptor locations.

Furthermore, implementation of idling restrictions under mitigation measure MM AIR-1 would minimize DPM emissions from construction equipment. Second, as shown in Figure 2-1, the prevailing daytime wind direction is from the west/southwest at the nearest meteorological station maintained by the SCAQMD in Azusa (less than five miles east of the Project area). Wind conditions at this location are considered representative of wind conditions in the Project area, meaning that DPM emissions generated by construction equipment would generally be pushed to the east/northeast, away from the closest sensitive residential receptors, and pollutants would quickly disperse over distance. Finally, potential long-term adverse health risks from DPM are evaluated assuming a constant exposure to emissions over a 70-year lifetime, 24 hours a day, seven days a week, with increased risks generally associated with increased proximity to emissions sources. Since construction activities would only generate DPM emissions on an interim, short-term basis, DPM emissions from construction activities would be unlikely to result in adverse health effects to existing sensitive receptors that exceed the SCAQMD's significance criteria<sup>7</sup>. Therefore, construction activities associated with buildout of the Project would not expose nearby sensitive receptors to substantial levels of DPM that would pose a significant adverse health risk.

### **Operational – Health Risks Related to Exposure from I-210 Emissions**

Once operational, the proposed Project would result in the placement of new sensitive residential receptors within 500 feet of the I-210, a local source of DPM emissions<sup>8</sup>. An HRA was performed to determine the health risk associated with operation of the Project consistent with the guidance and

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<sup>7</sup> The SCAQMD has established the following thresholds of significance for TAC emissions: Maximum Incremental Cancer Risk  $\geq 10$  in 1 million; Cancer Burden  $> 0.5$  excess cancer cases (in areas  $\geq 1$  in 1 million); Chronic & Acute Hazard Index  $\geq 1.0$  (project increment).

<sup>8</sup> Gasoline and diesel-fueled vehicles travelling on the I-210 would emit other TACs besides DPM; however, these other TACs would be emitted in much lower quantities than DPM. In addition, the SCAQMD's Mates IV study continues to identify DPM as the primary contributor to mobile source risks estimates (see Section 2.1.8, "Sensitive Air Quality Receptors and Existing Regional Health Risks"). Accordingly, this analysis focuses on the risk from DPM emitted by vehicles travelling on the I-210 as an overall indicator of potential adverse health risks from mobile sources operating near the site.

recommendations contained in the SCAQMD's CEQA *Air Quality Handbook*, as amended and supplemented (SCAQMD 2017a), SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* (SCAQMD 2003b), and OEHHA's *Air Toxics Hot Spots Program Guidance Manual* (OEHHA 2015).

The U.S. EPA's AERMOD dispersion model was used to predict pollutant concentrations from the I-210 at the proposed Project boundary along West Evergreen Avenue. The AERMOD dispersion model is a U.S. EPA-approved and SCAQMD-recommended model for simulating the dispersion of pollutant emissions and estimating ground level concentrations of pollutants at specified receptor locations. AERMOD requires the user to input information on the source(s) of pollutants being modeled, the receptors where pollutant concentrations are modeled, and the meteorology, terrain, and other factors that affect the potential dispersion of pollutants. These variables are described below.

**Modeled I-210 Sources/Emission Rates.** Emissions from the I-210 were modeled as a polygon-area source as shown in Table 5-16. The area source representing the freeway was extended 1,000 feet to the northwest and east of the Project area boundary to capture emissions emanating from the I-210 both adjacent and in close proximity to the Project area. The total length of the I-210 modeled was approximately 3,350 feet, or 0.63 miles, as shown in Table 5-16.

ID	Description	UTM Coordinates <sup>(A)</sup>		Size (m <sup>2</sup> )
		X	Y	
PAREA1	I-210 (Eastbound and Westbound)	406639.35	3777858.98	51185.1

Source: MIG 2019  
(A) UTM coordinates represent the northwest corner of the source.

Consistent with SCAQMD recommendations, PM<sub>10</sub> exhaust from diesel vehicles travelling along I-210 was evaluated in the HRA. The emission rate for the segment of I-210 modeled in the operational HRA was derived from diesel vehicle emission factors and vehicle population data contained in CARB's EMFAC model and annual average daily traffic volume data available from Caltrans. Using EMFAC data (for the Los Angeles South Coast Sub-Area), an average diesel emission factor, in terms of grams per mile, was developed for each vehicle class, based on a speed of 65 miles per hour. Then the population percentage for each vehicle class was multiplied by the annual average daily trips (AADT) for the segment of I-210 adjacent to the Project area, between Huntington Drive and South Myrtle Avenue (252,000 vehicles), to determine the total amount of diesel vehicles traveling adjacent to the Project area. This diesel vehicle estimate was then multiplied by the total segment length (0.63 miles) to determine the total miles travelled by each vehicle class. The total miles travelled were then multiplied by the average emission factor to determine total diesel vehicle emissions emitted from the modeled portion of I-210. Table 5-17 summarizes the average emission factors, vehicle class population percentage, vehicle miles traveled, and total diesel emissions occurring within the modeled source.

Vehicle Class	Emission Factor at 65 MPH (grams per mile) <sup>(A)</sup>	Vehicle Population <sup>(B)</sup>	Vehicle Miles Traveled <sup>(C)</sup>	Total Daily PM <sub>10</sub> Emissions (Grams) <sup>(D)</sup>	Total Daily PM <sub>10</sub> (Grams Per Second) <sup>(E)</sup>
LDA	0.001611306	0.49%	776	1.2509421	1.44785E-05
LDT1	0.028116599	0.00%	5	0.1499634	1.73569E-06
LDT2	0.003345548	0.13%	206	0.6903391	7.99004E-06
LHDT1	0.006014986	0.91%	1,453	8.7415092	0.000101175

Table 5-17: AERMOD Source Emissions Rate Information

Vehicle Class	Emission Factor at 65 MPH (grams per mile) <sup>(A)</sup>	Vehicle Population <sup>(B)</sup>	Vehicle Miles Traveled <sup>(C)</sup>	Total Daily PM <sub>10</sub> Emissions (Grams) <sup>(D)</sup>	Total Daily PM <sub>10</sub> (Grams Per Second) <sup>(E)</sup>
LHDT2	0.010734683	0.37%	589	6.3226286	7.31786E-05
HHDT	0.033787693	0.76%	1,217	41.133135	0.000476078
MDV	0.001345391	0.28%	450	0.6054664	7.00771E-06
MH	0.038410995	0.08%	130	5.0052745	5.79314E-05
MHDT	0.015244088	0.85%	1,363	20.783071	0.000240545
OBUS	0.023503175	0.04%	65	1.5253977	1.76551E-05
SBUS	0.018215134	0.05%	74	1.3460165	1.55789E-05
UBUS	0.003787529	0.00%	0	0.0008114	9.39173E-09
Total	--	3.96%	6,330	65.888827	7.62602E-04

Source: EMFAC2017 and Caltrans 2016

- (A) Emission factors represent the average emission factor for the vehicle class over the 2023 to 2050 time period. Emission factors are reported for a speed of 65 miles per hour.
- (B) Population percentage reflects the proportion of each vehicle class out of the total amount of vehicles in the Los Angeles (South Coast) sub-area.
- (C) Vehicle miles travelled is estimated by multiplying the vehicle population percentage times 252,000 (the ADT on I-210), times the modeled segment length (0.63 miles).
- (D) Total Daily emissions is estimated by multiplying the vehicle miles travelled by the average emission factor.
- (E) Grams per second is derived based on 86,400 seconds per day.

The release height for the modeled source was set to 3.28 meters to approximate an average of height of all vehicle exhaust sources.

**Meteorological Data Inputs.** AERMOD requires meteorological data as an input into the model. The meteorological data is processed using AERMET, a pre-processor to AERMOD. AERMET requires surface meteorological data, upper air meteorological data, and surface parameter data such as albedo (reflectivity) and surface roughness. For the proposed Project, pre-processed surface data from the SCAQMD was obtained for the Azusa meteorological station. The wind rose for the Azusa meteorological station data is shown above in Figure 2-1.

**Terrain Inputs.** Terrain was incorporated by using AERMAP (an AERMOD pre-processor) to import the elevation of the Project site using data from the National Elevation Dataset with a resolution of 1/3 arcsecond.

**Modeled Receptors.** Emissions were modeled in a single-tier fenceline grid. The single tier consisted of 5-meter spacing from the fenceline for a distance of 25 meters. Primary and intermediate (spaced every 5 meters) were also modeled. The receptor grids were then converted to discrete Cartesian receptors (1,529 in total). Receptors were modeled at heights of 0.0 and 10 meters and (33 feet) above the ground.

**Cancer Risk.** Cancer risk is the calculated, pollutant-specific estimated probability of developing cancer based upon the dose and exposure to the TAC. Cancer risk is determined by calculating the combinatory effects of a cancer potency factor (CPF) when inhaling the toxic, the daily inhalation dose, the age group the receptor is cohort to, the duration of exposure over a lifetime (70 years), and other factors such as age sensitivity and the amount of time spent at the location of exposure.

For the proposed Project, risks were assessed for the inhalation pathway (i.e., breathing) for both residential and worker receptors. Additionally, residential receptors were assessed under a 70-year exposure duration to further detail potential risk to those under lifetime exposure. Cancer risk equations for residential receptors is summarized in Table 5-18 and Table 5-19.

**Table 5-18: Cancer Risk Equations**

Equation 1 - Residential Risk:	$RISK_{INH.RES} = DOSE_{AIR.RES} \times CPF \times ASF \times \frac{ED}{AT} \times FAH$
Where:	
DOSE <sub>AIR</sub> =	Daily Inhalation Dose (mg/kg-day). See Table 5-19
CPF =	Cancer Potency Factor for Inhalants (mg/kg-day). CPF is expressed as the 95th percent upper confidence limit of the slope of the dose response curve under continuous lifetime exposure conditions. The CPF for diesel exhaust is 1.1 mg/kg-day.
ASF =	Age Sensitivity Factor. ASF is a protective coefficient intended to take into account increased susceptibility to long-term health effects from early-life exposure to TACs. The recommended ASFs are 10 for the third-trimester to birth and two-year age bins, three for the two-year to nine-year and 16-year age bins, and one for receptors over 16 years of age.
ED =	Exposure Duration (years). Exposure duration characterizes the length of residency (30 Years) of the receptor.
AT =	Averaging Time (years). A 70-year (lifetime) averaging time is used to characterize the total risk as a factor of average risk over a typical lifespan.
FAH =	Fraction at Home. FAH is the percentage of time the receptor is physically at the receptor location. The recommended percentages are 85 percent for the third-trimester to birth and two-year age bins, 72 percent for the two-year to nine-year and 16-year age bins, and 73 for receptors over 16 years of age.

**Table 5-19: Inhalation Dose Equations**

Residential Dose	$DOSE_{AIR.RES} = C_{AIR} \times \frac{BR}{BW} \times A \times EF \times 10^{-6}$
Where:	
C <sub>AIR</sub> =	Concentration of TAC in air (µg/m <sup>3</sup> ). Concentration of toxic in micrograms per one cubic meter of air. The AERMOD program is used in the study to determine concentrations of diesel particulate matter at surrounding discrete and grid receptor points.
BR/BW =	Breathing Rate ÷ Body Weight (L/kg/day). Daily breathing rate normalized to body weight. The 95 <sup>th</sup> percentile breathing rate to body weight ratios are used in this study with a recommended 361 L/kg/day for the third-trimester to birth age bin, 1,090 L/kg/day for the birth to two-years age bin, 861 L/kg/day for the two-years to nine-years age bin, 745 for the two-years to 16-years age bin, 335 L/kg/day for the 16-years to 30-years age bin, and 290 L/kg/day for the 16-years to 70-years age bin.
A =	Inhalation Absorption Factor. Is a coefficient that reflects the fraction of chemical absorbed in studies used in the development of CPF and Reference Exposure Levels (RELs). An absorption factor of one is recommended for all chemicals.
EF =	Exposure Frequency. EF is the ratio of days in a year that a receptor is receiving the dose. The recommended EF is 0.96 characterizing an assumed 350 days a year that a residential receptor is home for some portion of the day.

**Maximally Exposed Individual Resident.** Cancer risk was assessed for the maximally exposed individual resident (MEIR) in the Project area over a 30-year exposure duration (which characterizes the maximum residency tendency in California). The Point of Maximum Impact (PMI) was also determined. The MEIR is the location of the resident expected to have the highest exposure to TACs. The PMI corresponds to the location where the highest concentration of TACs is expected. Residential risk calculations account for presumed sensitivity to carcinogens and differences in intake rates for the third-trimester to birth, birth to two-years, two-years to nine-years, two-years to 16-years, 16-years to 30-years, and 16-years to 70 years age bins. Concentrations were modeled using AERMOD and then input into CARB's Hot Spots Analysis

and Reporting Program (HARP) Health Risk Assessment Standalone Tool (RAST) to calculate cancer risk based on the methods and recommendations found in the OEHHA HRA Guidelines. The RAST intake rate percentile was set to the 95<sup>th</sup> percentile and the fraction of time at home factor was applied to age bins less than 16 years. The resulting annual average DPM concentration and corresponding excess cancer risk at the MEIR are summarized in Table 5-19. For this analysis, two MEIRs were identified: the MEIR in the Alexan Foothills Specific Plan area only and the MEIR in ZCA Areas A and C. The PMI is located off-site, adjacent to West Evergreen Avenue in an area that would not be occupied by residential receptors; cancer risks at this location, therefore, were not estimated.

**Modeling Results.** The results of the modeling indicate that, in general, DPM concentrations are higher on the northern and western side of the Project area. This is due to the proximity of the northern Project boundary to the I-210. In general, the estimated cancer risks along the northern Project area boundary range from 21.1 to 25.7, while risks along the southern Project area boundary range from 7.5 to 10.2 (see Appendix C for more details). The MEIR for the Alexan Foothills Specific Plan area is located near the center of the Project area, while the MEIR for ZCA Areas A and C is located near the corner of West Evergreen Avenue and Mayflower Avenue. Table 5-20 summarizes the location, annual average concentration, and calculated excess cancer risk at the modeled MEIR locations.

Receptor	UTM Location		Annual Average DPM Concentration ( $\mu\text{g}/\text{m}^3$ )	Excess Cancer Risk (per million population)	Threshold Exceeded?
	Easting	Northing			
PMI <sup>(A)</sup>	406946.81	3777692.37	0.07087	--	--
MEIR (in Alexan Foothills Specific Plan area)	407063.01	3777615.42	0.03481	23.7	Yes
MEIR (in ZCA Areas A and C)	406932.28	3777671.45	0.03768	25.7	Yes

Source: MIG 2019  
The PMI is located in a public roadway and is not an occupied nor a potential receptor location. Therefore, cancer risk was not calculated

As shown in Table 5-20, site-specific cancer risks are much lower than CARB's MATES IV results, but uncontrolled DPM emissions would generate cancer risks in the Project area that are above the SCAQMD recommended cancer risk thresholds (10 cases of cancer per a population of one million) by a factor of approximately 2.5 as a worst case. This would occur along the northern portion of the Project area. Potential risks in the southern portion of the Project area, however, would be much lower (by approximately one-half or more) and either below or only slightly above the thresholds (10.2 cases in one million). Parts of the Alexan Foothills Specific Plan in the southeast corner of the Project area would also be exposed to risks that are below the SCAQMD cancer risk threshold. Without control of DPM emissions, therefore, vehicle emissions from the I-210 have an adverse impact on sensitive receptors in the Project area, and the addition of DPM emissions to the area from project vehicle trips could exacerbate this condition. It is important to note, however, that the above estimates are conservative and are likely to overestimate potential risks for the following reasons:

1. The lifetime exposure for a sensitive receptor was assumed to begin in the 3<sup>rd</sup> trimester (i.e., in the womb) in the Project area and it was assumed that sensitive receptors would then continue to be exposed through the infant stage and into early childhood. Risks to adult receptors (receptors older than 16 at the time of initial exposure) would be much lower (approximately 80% lower and less than the SCAQMD carcinogenic risk threshold).
2. The HRA estimates are based on near continuous exterior exposure at property line locations. Concentrations within the interior of the property where receptors would actually be located would be lower.
3. Because the project is an infill, transit-oriented development, it would result in an overall reduction of vehicle miles traveled by residents and workers in the City of Monrovia, thereby reducing overall traffic in the City and along the I-210. This is one of CARB's strategies for reducing air pollution exposure near high-volume roadways (CARB 2017).
4. The HRA does not take into account any reductions in PM that would be achieved by mechanically supplied air systems. Specifically, the 2019 amendments made to the California Building Standards Code, set to go into effect on January 1, 2020, would require high-rise<sup>9</sup> multifamily dwellings within 500 feet of busy roadways (more than 100,000 ADT) to use HVAC systems and filters with a Minimum Efficiency Rating Value (MERV) of 13. MERV-13 filters can remove up to 90% of particles less than 10 microns in size, which would result in a corresponding reduction in exposure to PM<sub>10</sub> and associated adverse health risks by 90%. While the California Building Standards code would require these HVAC systems to be appropriately designed and sized for individual dwelling units, the long-term air quality benefit and risk reduction realized by these enhanced filtration systems would be dependent in part, on individual owners and occupants of each dwelling unit (due to system maintenance and filter replacement requirements). Nonetheless, less efficient filters, such as a MERV-8, can remove up to 70% of particles less than 10 microns in size, which would result in a corresponding reduction in exposure to PM<sub>10</sub> and associated adverse health risks by 70%. A 70% reduction in modeled PM concentrations (i.e., indoor air quality levels) would reduce risks to levels below the SCAQMD threshold.

For the reasons outlined above, it is reasonable to assume that installation of HVAC systems with MERV-8 or MERV-13 filters in the Project area would reduce cancer risk to below SCAQMD significance thresholds. For full effectiveness, the HVAC system must be in operation at all times while residents are inside their unit and must be properly maintained. In addition, HVAC systems may not be a California Building Code requirement for all new structures in the Project area. Therefore, effects would be significant without additional mitigation. Therefore, to ensure indoor air quality concentrations remain at or are lower than the estimates presented in Table 5-20 for all residents in the Project area, mitigation measure MM AIR-2 requires installation of HVAC systems in all new residential buildings with a MERV of 13 and would ensure that all HVAC systems are maintained on a regular basis and that filters are replaced as required to

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<sup>9</sup> A high-rise building is defined by the California Building Code as any building used for human occupancy greater than 55 feet above the lowest level of Fire Department vehicle access. For the purposes of compliance with prescriptive indoor air quality requirements, the building energy efficiency standards consider a high rise residential building to be any building with four or more habitable stories.

ensure their effectiveness. With implementation of this mitigation measure, buildout under the Project would not exacerbate cancer risk associated with DPM emissions, including from the I-210.

### **Mitigation Measures**

**MM AIR-2:** For all new residential units in the Project area, the developer shall install, and owner maintain, HVAC systems with air filters meeting or exceeding the most current California Building Standards Code requirement for an ASHRAE Standard 52.2 Minimum Efficiency Rating Value (MERV) of 13 (a Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size). Air filters shall be replaced at a minimum of two times per year, or more, as needed, by the owner.

**Requirements and Timing:** This measure shall be printed on construction drawings and included as a requirement of the construction contract for new residential buildings. This measure shall also be recorded in a Notice to Property Owner for the Alexan Specific Plan units and for each new residential property within the Project area.

**Monitoring:** City Planning staff shall confirm that HVAC units and MERV-13 filters (or better) are installed in accordance with this measure prior to final sign off on construction for all new residential units. City Planning staff shall also review and approve of the Notice to Property Owner language and ensure recordation prior to final sign-off on construction of new residential units in the Project area.

**Population-Wide Cancer Burden.** Cancer burden is the product of public cancer risk and the population exposed to the carcinogen. The population of the Alexan Foothills Specific Plan and the remaining GP/ZCA area is conservatively estimated to be 1,169 people (see Table 5-3). Using the higher of the two MEIRs identified in Table 5-20, the average cancer risk based on the lifetime exposure scenario (70 years) is 3.02E-05 (approximately 30 cases per million people). The product of cancer risk and the estimated population is 0.036 and is below the SCAQMD threshold of 0.5 excess cancer cases in the Project population.

**Non-Cancer Risks.** The chronic non-cancer hazard quotient is the calculated pollutant-specific indicator for risk of developing an adverse health effect on specific organ system(s) targeted by the identified TAC, in this case, DPM. The potential for exposure to result in chronic non-cancer effects is evaluated by comparing the estimated annual average air concentration to the chemical-specific, non-cancer chronic reference exposure levels (RELs). The REL is a concentration below which there is assumed to be no observable adverse health impact to a target organ system. When calculated for a single chemical, the comparison yields a ratio termed a hazard quotient. The annual average air concentration is divided by the REL to calculate a hazard quotient. To evaluate the potential for adverse chronic non-cancer health effects from simultaneous exposure to multiple chemicals, the hazard quotients for all chemicals are summed, yielding a hazard index. The chronic REL for DPM was established by OEHHA as 5 µg/m<sup>3</sup>. There is no acute REL for DPM. Chronic non-cancer risks are considered significant if a project's TAC emissions result in a hazard index greater than or equal to one. Non-cancer risk equations are summarized in Table 5-21.



**Table 5-21: Non-Cancer Risk Equation**

Chronic Hazard Quotient:	$HI_{DPM} = \frac{C_{DPM}}{REL_{AAC}}$
Where:	
$HI_{DPM}$ =	Hazard Index; an expression of the potential for non-cancer health effects.
$C_{DPM}$ =	Annual average DPM concentration ( $\mu\text{g}/\text{m}^3$ ).
$REL_{DPM}$ =	Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

Existing sensitive receptors are exposed to air pollution associated with motor vehicles travelling on the I-210, located adjacent to the Project area. As shown in Table 5-20, the annual average DPM concentration associated with vehicle emissions along the I-210 at the PMI is 0.07087, which yields a chronic hazard quotient of 0.014, which is less than the SCAQMD threshold of 1.0. As indicated above, the PMI is not an occupied receptor location; thus, the calculated hazard quotient at all other receptor locations would be less than 0.001 and less than the SCAQMD threshold of 1.0.

### **Operational - Exacerbation of Existing I-210 Emissions and Risks**

In addition, as shown in Table 5-8 through Table 5-15, operation of the Project would not exceed any regional or local significance thresholds recommended for use by the SCAQMD. All emissions of PM, including DPM, would be substantially below LST thresholds. In addition, any emissions would be dispersed along multiple vehicle travel routes, reducing the potential for the Project to exacerbate pollutant concentrations in any one area. Therefore, the proposed Project would not have a considerable contribution to DPM emissions in the area and would not significantly exacerbate I-210 vehicle emissions or the potential adverse health risks associated with these emissions.

In addition, as discussed above, the proposed Project would not exceed SCAQMD-recommended thresholds for regional pollutants with the incorporation of standard conditions and Mitigation Measure AIR-1, nor would it exceed SCAQMD-recommended thresholds for localized pollutants. As explained in Section 5.1.2, the SCAQMD's LST thresholds represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards. In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS is intended to protect the most sensitive individuals.

### **Children's Respiratory Health**

The presence of pollutants in ambient and indoor air, as well as other factors such as humidity level, can affect respiratory health by making it harder to breathe, damaging tissue, and/or modifying symptoms of pre-existing conditions. Most pollutants can affect respiratory health (see Section 2.1.1). PM can pass through the throat and lungs and if small enough even enter the bloodstream. CO can reduce oxygen delivery to the body's organs. NO<sub>x</sub> can inflame the respiratory tract. In particular, air pollutants, can trigger asthmatic responses, especially in children.

According to the OEHHA CalEnviroScreen 3.0 report (2017a), asthma is a disease that affects the lungs and makes it hard to breathe. Symptoms include breathlessness, wheezing, coughing, and chest tightness. While the causes of asthma are poorly understood, it is well established that exposure to traffic and outdoor air pollutants, including PM, O<sub>3</sub>, and DPM can trigger asthma attacks. Nearly three million

Californians currently have asthma and about five million have had it at some point in their lives. Children, the elderly and low-income Californians suffer disproportionately from asthma. Asthma increases an individual's sensitivity to pollutants. Children living near major roadways and traffic corridors in California have been shown to suffer disproportionate rates of asthma, and DPM has been implicated as a potential cause of new-onset asthma (CARB 2017).

As described above, CalEnviroScreen data indicate that the Project area's census tract is in the 20th percentile for asthma, meaning that the asthma rate in this census tract is higher than 20% of the census tracts in the State (OEHHA 2018). This factor indicates that adverse respiratory health is not prevalent in the census tract in which the proposed Project area is located, and that the existing conditions in the census tract are such that sensitive receptors, including children, are in an area of lower risk for adverse respiratory health effects.

In addition, with implementation of standard conditions and mitigation measures MM AIR-1 and MM AIR-2, the proposed Project's air emissions would remain below SCAQMD health risk thresholds as well as SCAQMD-recommended LST thresholds that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards. In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks, including the potential to exacerbate asthma symptoms. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS, as well as health risk thresholds, is intended to protect the most sensitive individuals, including and especially, children.

Therefore, the proposed Project would not place sensitive receptors, including children, in conditions that are associated with or have a high existing rate of adverse respiratory health effects, and Project emissions would be below the levels that have been studied and developed by the U.S. EPA, CARB, and the SCAQMD to be protective of children's respiratory health.

#### **5.3.4 Odors**

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed Project does not include such sources but would result in the construction of a new apartment complex and parking garage that could generate odors related to vehicle parking and refuse collection (e.g. oils, lubricants, fuel vapors, short-term waste odors). These activities would not generate sustained odors that would affect substantial numbers of people. In addition, although industrial land uses are present east of the Project area, these sources are unlikely to generate objectionable odors in the Project area given the typical meteorological patterns present (see Figure 2-1).

## 6 GREENHOUSE GAS IMPACT ANALYSIS

This chapter evaluates the GHG impacts that could result from implementation of the proposed Alexan Foothills Specific Plan and ZCA Areas A and C. Unlike air quality, which is influenced by local and regional factors and is therefore considered on the local or regional scale, the effects of global climate change are the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

### 6.1 SIGNIFICANCE CRITERIA

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project could result in potentially significant GHG impacts if it would:

- (a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- (b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG; or

To date, the SCAQMD has not adopted a numerical threshold for determining the significance of GHG emissions in the Basin; however, to provide guidance to local lead agencies on determining the significance of GHG emissions in their CEQA documents, the SCAQMD convened a GHG Significance Threshold Working Group (Working Group) meeting on April 30, 2008. In December, 2008, the SCAQMD Governing Board adopted a GHG significance threshold of 10,000 MTCO<sub>2</sub>e for industrial projects where the SCAQMD is lead agency; however, the City would be the lead agency for the proposed Project. The SCAQMD has not formally adopted GHG thresholds for local lead agency consideration; however, to date, the Working Group has convened a total of 15 times, with the last meeting taking place on September 28, 2010. At this last meeting, SCAQMD presented their proposed GHG thresholds for use by local lead agencies. The proposed thresholds are tiered as follows:

- Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:
  - 3,000 MTCO<sub>2</sub>e/year for all land use types; or
  - 3,500 MTCO<sub>2</sub>e/year for residential; 1,400 MTCO<sub>2</sub>e/year for commercial; 3,000 MTCO<sub>2</sub>e/year for mixed-use projects.
- Tier 4 has three options for projects that exceed the screening values identified in Tier 3:
  - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
  - Option 2: Early implementation of applicable AB 32 Scoping Measures
  - Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 MTCO<sub>2</sub>e/year/SP in 2020 and 4.1 MTCO<sub>2</sub>e/year/SP by 2035. For project-level

analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 MTCO<sub>2</sub>e/year/SP for the 2020 and 2035 calendar years, respectively.

## 6.2 ANALYSIS METHODOLOGY

Tier 3 and Tier 4 thresholds were used as significance criteria in this analysis to determine if GHG emissions under the proposed Project would have a significant effect on the environment. A project level analysis was applied to the Alexan Foothills Specific Plan since it involves a specific development project pursuant to City regulations; however, a program level analysis was applied to the remainder of the GP/ZCA area because a specific development plan is not currently proposed nor considered at this time.

For potential environmental impacts, mitigation measures were designed to avoid or reduce each effect to a less than significant level, where possible.

## 6.3 ENVIRONMENTAL IMPACTS

### 6.3.1 Generation of Greenhouse Gas Emissions

This report quantifies and evaluates the potential GHG emissions resulting from by the Alexan Foothills Specific Plan and the remainder of the GP/ZCA area. Each individual Project component's GHG emissions are presented and discussed below, and the resulting combined emissions that would occur from both project components are presented and nor considered at this time

The proposed Project would generate GHG emissions from both short-term construction and long-term operational activities. As described in more detail below, the proposed Project would not generate short-term or long-term emissions that exceed SCAQMD-recommended pollutant thresholds.

#### ***Alexan Foothills Specific Plan Impact Analysis***

**Construction Emissions.** Construction activities would generate GHG emissions primarily from equipment fuel combustion as well as worker, vendor, and haul trips to and from the Project site during demolition, site preparation, grading, building construction, paving, and architectural coating activities. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the Project is decommissioned. Accordingly, the SCAQMD recommends amortizing construction GHG emissions over a 30-year period. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. GHG emissions from construction of the proposed Alexan Foothills Specific Plan were estimated using CalEEMod, Version 2016.3.2, based on the anticipated construction schedule and construction activities described earlier in this report. The estimated construction GHG emissions resulting from the Alexan Foothills Specific Plan are presented below in Table 6-1.

<b>Table 6-1: Estimated Construction GHG Emissions for the Alexan Foothills Specific Plan</b>				
<b>Construction Year</b>	<b>GHG Emissions (Metric Tons / Year)</b>			
	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>Total MTCO<sub>2</sub>e</b>
2020	1,061.7	0.13	0.00	1,064.9
2021	1,297.5	0.11	0.00	1,300.3
2022	292.4	0.03	0.00	293.3
<i>Total</i>	2,651.60	0.27	0.00	2,658.50
<b>Total Amortized Emissions<sup>(A)</sup></b>	88.4	<0.00 <sup>(B)</sup>	<0.00 <sup>(B)</sup>	88.5

Source: MIG 2019 (see Appendix A).

(A) Emissions amortized over 30 year-period for inclusion in total GHG emissions.

(B) "<0.0" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01, but larger than 0.000.

**Operational Emissions.** Once operational, the Alexan Foothills Specific Plan would result in continuous GHG emissions from mobile, energy, and area sources. Mobile sources would result primarily in emissions of CO<sub>2</sub>, with emissions of CH<sub>4</sub> and NO<sub>2</sub> also occurring in minor amounts. In addition to mobile sources, GHG emissions would also be generated from natural gas usage, electricity use, water conveyance and use, wastewater treatment, and solid waste disposal. Natural gas use would result in the emission of two GHGs: CH<sub>4</sub> (the major component of natural gas) and CO<sub>2</sub> (from the combustion of natural gas). Electricity use associated with both the physical usage of the development, as well as the energy needed to transport water/wastewater, would result in the production of GHGs if the electricity is generated through non-renewable sources (i.e., combustion of fossil fuels). Solid waste generated by the proposed Project, would contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy when transporting and managing the waste. In addition, landfilling, the most common waste management practice, results in the release of CH<sub>4</sub> from the decomposition of organic materials.

Potential operational GHG emissions resulting from the Alexan Foothills Specific Plan were modeled using CalEEMod, Version 2016.3.2. The total GHG emissions associated with the Alexan Foothills Specific Plan are presented below in Table 6-2, based on an operational year of 2023. To account for all potential GHG emissions generated through construction and operational activities, the amortized construction emissions calculated in Table 6-1 have been added to Alexan Foothills Specific Plan operational GHG emissions estimate.

As shown in Table 6-2, construction and operation of the Alexan Foothills Specific Plan would result in a net increase in GHG emissions equal to 2,438.3 MTCO<sub>2</sub>e per year. This net emissions increase is below the SCAQMD Tier 3 "bright-line" threshold of 3,000 MTCO<sub>2</sub>e.

In addition, as shown in Table 6-2, the Alexan Foothills Specific Plan would result in a GHG efficiency of 3.8 MTCO<sub>2</sub>e/yr/service population. This value is below the SCAQMD's 2020 project-level efficiency target of 4.8 MTCO<sub>2</sub>e/yr/service population; however, the Alexan Foothills Specific Plan would be operational after 2020, in Year 2023. Therefore, it is not necessarily appropriate to compare the 2023 Alexan Foothills Specific Plan GHG efficiency to the SCAQMD 2020 efficiency threshold. Conversely, it is not appropriate to directly compare the 2023 Alexan Foothills Specific Plan GHG efficiency to a 2035 efficiency target since the current modeling does not account for any energy or mobile source improvements embedded in a future efficiency target. Therefore, to compare the Alexan Foothills Specific Plan to the SCAQMD 2035 efficiency target of 3.0 MTCO<sub>2</sub>e/yr/service population, operational emissions

were modeled using CalEEMod Version 2016.3.2 with the operational year set to 2035, to reflect the expected reduction in energy and mobile source emissions that will occur with implementation of the State RPS and advances in vehicle emission and other standards adopted by the State (see Section 3.4). The 2035 modeling only accounted for changes to energy and mobile source emissions as a result of increased renewable energy generation under the RPS standard and fleet turnover and improved vehicle emission standards associated with a 2035 operational year. The 2035 amortized construction and operational emissions for the Alexan Foothills Specific Plan, as estimated using CalEEMod (see Appendix A), are estimated to be 2,961.4 MTCO<sub>2</sub>e/yr. Dividing through by the service population for the Alexan Foothills Specific Plan (980 residents), the result Year 2035 GHG efficiency is 3.0 MTCO<sub>2</sub>e/yr/service population, which does not exceed the SCAQMD 2035 efficiency target of 3.0. Thus, the proposed Alexan Foothills Specific Plan would result in less than significant levels of GHG emissions and not impede progress towards the State's GHG reduction goals.

<b>Table 6-2: Estimated Operational GHG Emissions for the Alexan Foothills Specific Plan</b>			
<b>Emission Source</b>	<b>GHG Emissions (MTCO<sub>2</sub>e / Year)</b>		
	<b>Existing<sup>(A)</sup></b>	<b>Proposed</b>	<b>Net Change</b>
Area	0.4	7.8	+7.5
Energy	416.4	1,298.2	+881.8
Mobile <sup>(B)</sup>	697.7	2,002.4	+1,304.7
Waste	54.7	25.4	-29.3
Water	100.1	285.12	+185.0
Amortized Construction	–	88.5	+88.3
<b>Total<sup>(C)</sup></b>	<b>1,269.2</b>	<b>3,707.5</b>	<b>+2,438.3</b>
SCAQMD Tier 3 Screening Threshold	–	–	3,000
SCAQMD Tier 3 Threshold Exceeded?	–	–	No
Estimated Service Population <sup>(D)</sup>	133 <sup>(E)</sup>	980 <sup>(F)</sup>	+847
Estimated GHG Efficiency (MTCO <sub>2</sub> e/yr/service population)	9.5	3.8	-5.7
SCAQMD Tier 4 Project-Level Efficiency Threshold	–	4.8	–
SCAQMD Tier 4 Threshold Exceeded?	–	No	–
Source: MIG 2019 (see Appendix A).			
Notes:			
(A) See Table 3-3 for existing GHG emissions in Alexan Foothills Specific Plan area.			
(B) CalEEMod 2016.3.2 does not incorporate GHG emissions reductions resulting from the State's LCFS. Although LCFS largely reduces GHG from upstream fuel processing (and not individual tailpipe) the aggregate effect on transportation fuels is a reduction in GHG emissions throughout the state from lower fuel carbon content. Accordingly, this Report's analysis reduces transportation combustion emissions pursuant to LCFS requirements. Based on the latest estimate available from CARB, the LCFS regulation resulted in a 2.5% reduction in average carbon intensity content in 2016 and should result in a 5% reduction in average carbon intensity in 2018. The current LCFS regulation also requires a 10% reduction in average carbon intensity by 2020. Thus, CalEEMod transportation emissions were adjusted by multiplying by a factor of .95 (existing conditions) and 0.90 (proposed Project) to account for the LCFS regulation (CARB 2018a, 2018b).			
(C) Totals may not equal due to rounding.			
(D) Service population is defined as the number of employees and residents living and working within the Project area. The existing land uses include a mix of employees and residents; however, the Alexan Foothills Specific Plan service population is based on residents only.			
(E) Based upon the U.S. Green Building Council's (2008) average SF/employee: Place of Worship is 6,630 square feet (SF)/1,250 SF/employee = 5.3 employees, for General Light Industrial is 56,190 SF/463 SF/employee = 121.4 employees, and Office Building (100,000 SF or less) is 706 SF/221 SF/employee = 3.19 employees. According to the U.S. Census Bureau the average household size in Monrovia is 2.77 persons (1 unit X 2.77 persons/unit = 2.77 persons). This yields a total service population of 133.			
(F) According to the U.S. Census Bureau, the average persons per bedroom in Monrovia is 1.536. Given this, under the scenario of 439 units, the Alexan Foothills Specific Plan would accommodate 980 residents (Studio: 24 x 1 x 1.536 = 37; 1 Bedroom: 232 x 1 x 1.536 = 356; 2 Bedrooms: 167 x 2 x 1.536 = 513; and 3 Bedroom: 16 X 3 X 1.536 = 74). A total of 436 units is proposed under the Alexan Foothills Specific Plan, however, 439 units were analyzed.			

## ZCA Areas A and C

The short-term construction and long-term operational emissions associated with ZCA Areas A and C were estimated using the same methodology (CalEEMod) as described above for the Alexan Foothills Specific Plan. As was done for the Alexan Foothills Specific Plan modeling, default energy assumptions were reduced to account for the recent adoption of the 2019 energy efficiency code, and solid waste was assumed to be diverted at a rate of 75% pursuant to AB 341. Although traffic was calculated in the TIA for the Project (LSA 2018), default trip generation rates were used for emissions calculations. The use of default trip generation rates is likely to overestimate mobile source emissions since the Project's proximity to the Monrovia Metro Station is likely to reduce vehicle trips compared to default values. The construction and operational emissions associated with the ZCA Areas A and C are summarized in Tables 6-3 and 6-4 below.

Source	GHG Emissions (Metric Tons / Year)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total MTCO <sub>2e</sub>
<b>Annual Average Construction GHG Emissions</b>				
2021	209.82	0.03	0.00	210.67
2022	166.35	0.03	0.00	166.98
<i>Total</i>	376.2	0.06	0.00	377.65
<b>Total Amortized Emissions<sup>(A)</sup></b>	12.54	0.002	0	12.59

Source: MIG 2019 (see Appendix A).  
(A) Emissions amortized over 30 year-period for inclusion in total GHG emissions.

Source	GHG Emissions (MTCO <sub>2e</sub> / Year)		
	Existing <sup>(A)</sup>	Buildout	Net Change
Area	1.4	1.4	+0.06
Energy	202.2	193.34	-8.8
Mobile <sup>(B)</sup>	227.7	569.3	+341.6
Waste	16.1	4.7	-11.4
Water	45.8	53.23	+7.5
Amortized Construction	–	12.6	+12.6
<b>Total<sup>(C)</sup></b>	493.2	834.7	+341.5
SCAQMD Tier 3 Screening Threshold	–	–	3,000
SCAQMD Tier 3 Threshold Exceeded?	–	–	No
Estimated Service Population <sup>(D)</sup>	55 <sup>(E)</sup>	227 <sup>(F)</sup>	+172
Estimated GHG Efficiency (MTCO <sub>2e</sub> /yr/service population)	9.6	3.7	-5.9
SCAQMD Tier 4 Plan-Level Efficiency Threshold	–	6.6	–
SCAQMD Tier 4 Threshold Exceeded?	–	No	–

Source: MIG 2019 (see Appendix A).  
Notes:  
(A) See Table 3-3 for existing GHG emissions in Alexan Foothills Specific Plan area.  
(B) CalEEMod 2016.3.2 does not incorporate GHG emissions reductions resulting from the State's LCFS. Although LCFS largely reduces GHG from upstream fuel processing (and not individual tailpipe) the aggregate effect on transportation fuels is a reduction in GHG emissions throughout the state from lower fuel carbon content. Accordingly, this Report's analysis reduces transportation combustion emissions pursuant to LCFS requirements. Based on the latest estimate available from CARB, the LCFS regulation resulted in a 2.5% reduction in average carbon intensity content in 2016 and should result in a 5% reduction in average carbon intensity in 2018. The

current LCFS regulation also requires a 10% reduction in average carbon intensity by 2020. Thus, CalEEMod transportation emissions were adjusted by multiplying by a factor of .95 (existing conditions) and 0.90 (proposed project) to account for the LCFS regulation (CARB 2018a, 2018b).
(C) Totals may not equal due to rounding.
(D) Service population is defined as the number of employees and residents living and working within the Project area. The existing land uses include a mix of employees and residents; however, the Alexan Foothills Specific Plan service population is based on residents only.
(E) Based upon the U.S. Green Building Council's (2008) average SF/employee for: General Light Industrial is 14,560 SF/463 SF/employee = 31.4 employees, and for Warehouse is 10,120 SF/781 SF/employee = 13 employees. According to the U.S. Census Bureau the average household size in Monrovia is 2.77 persons (4 units x 2.77 persons/unit =11.08). This yields a total service population of 55.
(F) According to the U.S. Census Bureau, the average household size in Monrovia is 2.77 persons (2.77 persons/unit X 82 units = 227.1) = 227 residents at full buildout.

As shown in Table 6-4, construction and operation of ZCA Areas A and C would result in a net increase in GHG emissions equal to 341.5 MTCO<sub>2e</sub> per year. This net emissions increase is below the SCAQMD Tier 3 threshold of 3,000 MTCO<sub>2e</sub> and would thus represent a less than significant effect; however, it would be inappropriate to use this threshold since ZCA Areas A and C are being analyzed at a programmatic level. Instead, the total GHG emissions within ZCA Areas A and C are evaluated on a per capita basis to determine if GHG emissions in these areas would be consistent with the SCAQMD's Tier 4 analysis. As shown in Table 6-5, the proposed buildout of ZCA Areas A and C in Year 2023 falls below the SCAQMD's 2020 GHG efficiency target of 6.6 MTCO<sub>2e</sub>/yr/service population, as well as the SCAQMD's 2035 GHG efficiency target of 4.8 MTCO<sub>2e</sub>/yr/service population.

### **Combined Alexan Foothills Specific Plan and ZCA Areas A and C Impact Analysis**

As described above, this report assumes that construction and operation of the Alexan Foothills Specific Plan and ZCA Areas A and C would occur simultaneously, meaning that both construction and operational emissions for both Project components would overlap and be emitted at the same time. The combined net GHG emissions associated with buildout of the Alexan Foothills Specific Plan ZCA Areas A and C in Year 2023 are presented below in Table 6-5.

**Table 6-5: Total Combined GHG Emissions for the Alexan Foothills Specific Plan and ZCA Areas A and C (Year 2023)**

Source	GHG Emissions (MTCO <sub>2e</sub> / Year)		
	Existing <sup>(A)</sup>	Project Buildout <sup>(B)</sup>	Net Change
Area	1.7	9.3	+7.6
Energy	618.5	1,491.6	+873.1
Mobile	925.4	2,571.7	+1,664.3
Waste	70.8	30.1	-40.7
Water	145.9	338.5	+192.5
Amortized Construction	-	101.1	+101.1
<b>Total<sup>(C)</sup></b>	<b>1,762.4</b>	<b>4,542.2</b>	<b>+2,779.8</b>
SCAQMD Tier 3 Screening Threshold	-	-	3,000
SCAQMD Tier 3 Threshold Exceeded?	-55	-	No
Estimated Service Population	184	1,207	+1,096
Estimated GHG Efficiency (MTCO <sub>2e</sub> /yr/service population)	9.6	3.8	-
SCAQMD Tier 4 Project-Level Efficiency Threshold	-	4.8	-
SCAQMD Tier 4 Threshold Exceeded?	-	No	-



Source: MIG 2019 (see Appendix A)

Notes:

(A) See Table 3-3 for the existing emissions within the Project area.

(B) See Tables 6-2 and 6-4 for buildout emissions for the Alexan Foothills Specific Plan and remaining GP/ZCA area, respectively.

(C) Totals may not equal due to rounding.

As shown in Table 6-5, buildout of the full Project would result in a 2,779.8 MTCO<sub>2e</sub> increase in GHG emissions from existing conditions. This is below the SCAQMD Tier 3 threshold of 3,000 MTCO<sub>2e</sub>.

As stated previously, the Alexan Foothills Specific Plan is being analyzed at a project level, while ZCA Areas A and C are being evaluated at a programmatic level. As a conservative (i.e., worst-case) evaluation of potential GHG emission impacts, the combined GHG efficiency of both the Alexan Foothills Specific Plan and ZCA Areas A and C was determined and compared to the SCAQMD's project level Tier 4 efficiency threshold. As shown in Table 6-5, the combined efficiency threshold for the Alexan Foothills Specific Plan and ZCA Areas A and C (3.7 MTCO<sub>2e</sub>/yr/service population) in Year 2023 would not exceed the SCAQMD 2020 plan GHG efficiency target of 4.8 MTCO<sub>2e</sub>/yr/service population but would be above the SCAQMD's 2035 project efficiency threshold of 3.0 MTCO<sub>2e</sub>/yr/service population. As explained above, the operational emissions for the Alexan Foothills Specific Plan as well as ZCA Areas A and C were modeled under year 2035 conditions to account for changes to energy and mobile source emissions as a result continued implementation of the RPS, fleet turnover, and improved vehicle emissions standards; all other inputs were held to 2023 values (e.g., energy efficiency, carbon intensity of SCE electricity, LCFS reductions, solid waste diversion rates, etc.). The 2035 operational emissions (including amortized construction emissions), as estimated using CalEEMod (see Appendix A), are estimated to be 3,630 MTCO<sub>2e</sub> per year. Dividing through by the combined service population (1,207) results in a combined efficiency 3.0 MTCO<sub>2e</sub>/yr/service population, which does not exceed the SCAQMD 2035 project-level target of 3.0 MTCO<sub>2e</sub>/yr/service population.

### 6.3.2 Consistency With GHG Reduction Plans

The proposed Project would not conflict with CARB's Scoping Plan, the regional SCS, the City's General Plan, or the City's Energy Plan. The Project's consistency with these plans is described in more detail below.

#### CARB Scoping Plan

As discussed under Section 3.4.2, the 2017 Climate Change Scoping Plan is CARB's primary document used to ensure State GHG reduction goals are met. The *2017 Climate Change Scoping Plan's* primary objective is to identify the measures needed to achieve the 2030 reduction target established under Executive Order B-30-15 and SB 32. The major elements of the plan are generally geared toward actions either CARB or other state entities will pursue, such as, but not limited to:

- Implementing the LCFS, with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the RPS to 50 percent and doubles energy efficiency savings; and
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH<sub>4</sub> and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by the year 2030.

Although most of these measures would be implemented at the State level, the GHG reductions achieved by these state measures would be realized at the local level. For example, regardless of actions

taken by the City, emissions generated through gasoline combustion in motor vehicles within Monrovia would produce less GHG in 2030 than they do now. As shown in Table 6-5, the proposed Alexan Foothills Specific Plan and ZCA Areas A and C would meet the recommended plan-level efficiency threshold of 6 MTCO<sub>2e</sub> per capita per year by 2030 and would therefore contribute to the substantial progress necessary to achieve the *2017 Climate Change Scoping Plan* target of a 2 MTCO<sub>2e</sub> per capita per year threshold in Year 2050. The proposed Project, therefore, would not conflict with the goals of the *2017 Climate Change Scoping Plan*.

In addition to State measures, Appendix B to CARB's *2017 Climate Change Scoping Plan* identifies potential actions that could be undertaken at a local level to support the State's climate goals. This appendix is organized into two categories. Category A applies to code and broad planning documents and is not applicable to a Specific Plan. Category B includes measures that could be considered for individual projects. The Alexan Foothills Specific Plan and ZCA Areas A and C is consistent with many of the suggested measures in Appendix B through required compliance with SCAQMD rules and the California Green Building Standards Code. The proposed Project, therefore, would not conflict with the goals of the *2017 Climate Change Scoping Plan*.

### **Southern California Association of Governments RTP/SCS**

As described in Section 3.4.2, the 2016 RTP/SCS is a growth strategy and transportation plan whose primary intent is to demonstrate how the SCAG region will meet its GHG reduction target through the year 2040. Many of the measures included in the RTP/SCS are focused on: the expansion of, and access to, mass transit (e.g., light rail, commuter rail, bus rapid transit, etc.); planning growth around livable corridors; and locating new housing and job growth in high quality transit areas. Approval of the proposed Project would support these goals, because it (1) results in and encourages infill development and/or involves the revitalization of already developed areas, (2) has existing, supporting transit infrastructure and enhances the use of this infrastructure (the METRO Station is a 0.2-mile walk from to the east of the Project boundary), and (3) encourages the use of non-vehicular modes of transportation.

Under California law, SCAG is required to implement strategies that reduce per capita GHG emissions in the region by eight percent by 2020—compared with 2005 levels—and by 13 percent by 2035 (SCAG 2016). Although the existing emissions in the Project area have not been estimated for Year 2005, it is very likely that 2005 GHG emissions levels (and efficiency metrics) would be higher than the Year 2018 existing conditions presented in Table 3-3. As shown in Table 6-5, the Project is anticipated to reduce per capita GHG emissions by approximately 64 percent from existing conditions, which exceeds the progress needed to achieve the mandated reduction in GHG emissions of 13 percent by 2035. One of the reasons the Project results in such low GHG emissions is the Project area's proximity to the Monrovia METRO Station. The proximity of this transit station to the Project is estimated to reduce Project-related trips by 20%.

Since the implementation of the proposed Project would result in transit-oriented development, support the use of mass transit, and result in vehicle trips that are approximately 20% lower than standard values due to the proximity of the Monrovia METRO station, the proposed Project would be consistent with the SCAG 2016 RTP/SCS.

### **City of Monrovia Energy Action Plan**

The City of Monrovia has an *Energy Action Plan* that seeks to decrease energy use and dependence. The plan suggests the need for citizen involvement and focuses heavily on actionable items related to managing City facilities and vehicles. Additionally, the City requires consistency with energy

saving strategies (such as Title 24 which requires energy efficient practices). The Project is consistent with Title 24 building codes, and therefore is consistent with the goals of the Energy Action Plan.

### 6.3.3 Energy Consumption

Short-term energy demand would result from construction activities occurring as a result of buildout of the Project. Short-term demand would include energy needed to power worker and vendor vehicle trips as well as construction equipment. Long-term energy demand would result from operation of businesses and land uses within the Project area, which would include activities such as lighting, heating and cooling of structures, etc. Operational energy demands would typically result from vehicle trips, electricity and natural gas usage, and water and wastewater conveyance.

As estimated by the TIA prepared for the Project and the emissions modeling conducted using CalEEMod defaults, buildout of the proposed Project is anticipated to result in an increase in vehicle miles traveled (VMT) by approximately 19,813 VMT daily, natural gas consumption by 209,426.2 kBTU annually, and electricity consumption by 626 kWh annually. Although VMT and energy consumption increases, consumption rates per capita would decrease. Buildout of the Project would result in a VMT decrease from 26.2 VMT/service population/day to 20.4 VMT/service population/day. Natural gas consumption would also reduce from 3,175.6 kBTU/service population/year to 657.6 kBTU/service population/year, and annual electricity consumption would decrease from 4,984.6 kWh/service population/year to 760.4 kWh/service population/year.

Although implementation of the Project may increase VMT and energy and natural gas usage compared to current conditions, increased density would provide for more efficient use of resources within the City, thus ensuring that the proposed Project would not result in the wasteful or inefficient use of energy resources. This would be a less than significant effect.

In addition, as discussed above, the Project would be consistent with CARB's Scoping Plan and SCAG's RTP/SCS which also incorporate goals for use of renewable energy and efficient energy use as well as for reducing GHG emissions. Therefore, the Project would be consistent with applicable State and local plans for promoting use of renewable energy and energy efficiency.



## 7 REPORT PREPARERS AND REFERENCES

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This report was prepared by MIG under contract to Trammell Crow Residential. This report reflects the independent, objective, professional opinion of MIG.

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## **APPENDIX A: CalEEMod Output Files**

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Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**Alexan Specific Plan (Existing Emissions)**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	6.63	1000sqft	0.15	6,630.00	0
General Light Industry	56.19	1000sqft	1.29	56,190.00	0
Other Asphalt Surfaces	221.19	1000sqft	5.08	221,189.00	0
Single Family Housing	1.00	Dwelling Unit	0.27	2,368.00	3

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	483.37	<b>CH4 Intensity (lb/MWhr)</b>	0.52	<b>N2O Intensity (lb/MWhr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

Project Characteristics - RCM Modeling

Land Use - square footage per land use provided by project engineers

Construction Phase - Not modeling construction emissions

Off-road Equipment - Not modeling construction emissions

Trips and VMT - Not modeling construction emissions

Grading - Not modeling construction emissions

Architectural Coating - Not modeling construction emissions

Vehicle Trips - ADT from TIA

Energy Use - LU Code Yr pre-2008 energy use factors

Water And Wastewater - non residential land use - zero out

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	31,410.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	94,230.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,271.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,598.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	4,795.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	T24E	443.48	820.44
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	21,090.59	39,017.59
tblLandUse	LandUseSquareFeet	221,190.00	221,189.00
tblLandUse	LandUseSquareFeet	1,800.00	2,368.00
tblLandUse	LotAcreage	0.32	0.27
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.37
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblTripsAndVMT	VendorTripNumber	47.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	120.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	ST_TR	1.32	6.01
tblVehicleTrips	ST_TR	10.37	6.01
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	0.68	6.01
tblVehicleTrips	SU_TR	36.63	6.01
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.97	6.01
tblVehicleTrips	WD_TR	9.11	6.01
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	OutdoorWaterUseRate	324,465.98	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**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	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734
Energy	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030
Mobile	1.0583	4.9212	15.7812	0.0454	3.3612	0.0533	3.4145	0.8998	0.0501	0.9499		4,605.9884	4,605.9884	0.2729		4,612.8107
<b>Total</b>	<b>2.9203</b>	<b>5.3521</b>	<b>16.7410</b>	<b>0.0492</b>	<b>3.3612</b>	<b>0.1613</b>	<b>3.5226</b>	<b>0.8998</b>	<b>0.1582</b>	<b>1.0580</b>	<b>9.3669</b>	<b>5,115.8803</b>	<b>5,125.2472</b>	<b>0.3106</b>	<b>9.6500e-003</b>	<b>5,135.8870</b>

**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	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734
Energy	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030
Mobile	1.0583	4.9212	15.7812	0.0454	3.3612	0.0533	3.4145	0.8998	0.0501	0.9499		4,605.9884	4,605.9884	0.2729		4,612.8107
<b>Total</b>	<b>2.9203</b>	<b>5.3521</b>	<b>16.7410</b>	<b>0.0492</b>	<b>3.3612</b>	<b>0.1613</b>	<b>3.5226</b>	<b>0.8998</b>	<b>0.1582</b>	<b>1.0580</b>	<b>9.3669</b>	<b>5,115.8803</b>	<b>5,125.2472</b>	<b>0.3106</b>	<b>9.6500e-003</b>	<b>5,135.8870</b>



Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	5/31/2017	5	0	
2	Site Preparation	Site Preparation	6/29/2017	6/28/2017	5	0	
3	Grading	Grading	7/13/2017	7/12/2017	5	0	
4	Building Construction	Building Construction	8/10/2017	8/9/2017	5	0	
5	Paving	Paving	6/28/2018	6/27/2018	5	0	
6	Architectural Coating	Architectural Coating	7/26/2018	7/25/2018	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.08

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**



























Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0583	4.9212	15.7812	0.0454	3.3612	0.0533	3.4145	0.8998	0.0501	0.9499		4,605.9884	4,605.9884	0.2729		4,612.8107
Unmitigated	1.0583	4.9212	15.7812	0.0454	3.3612	0.0533	3.4145	0.8998	0.0501	0.9499		4,605.9884	4,605.9884	0.2729		4,612.8107

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	337.70	337.70	337.70	1,495,438	1,495,438
Other Asphalt Surfaces	0.00	0.00	0.00		
Place of Worship	39.85	39.85	39.85	84,984	84,984
Single Family Housing	0.00	0.00	0.00		
<b>Total</b>	<b>377.55</b>	<b>377.55</b>	<b>377.55</b>	<b>1,580,422</b>	<b>1,580,422</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix



Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Other Asphalt Surfaces	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Place of Worship	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

**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	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030
NaturalGas Unmitigated	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**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					
General Light Industry	3626.95	0.0391	0.3556	0.2987	2.1300e-003		0.0270	0.0270		0.0270	0.0270		426.6999	426.6999	8.1800e-003	7.8200e-003	429.2356
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	427.953	4.6200e-003	0.0420	0.0352	2.5000e-004		3.1900e-003	3.1900e-003		3.1900e-003	3.1900e-003		50.3474	50.3474	9.6000e-004	9.2000e-004	50.6466
Single Family Housing	124.388	1.3400e-003	0.0115	4.8800e-003	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6339	14.6339	2.8000e-004	2.7000e-004	14.7208
<b>Total</b>		<b>0.0451</b>	<b>0.4090</b>	<b>0.3388</b>	<b>2.4500e-003</b>		<b>0.0311</b>	<b>0.0311</b>		<b>0.0311</b>	<b>0.0311</b>		<b>491.6812</b>	<b>491.6812</b>	<b>9.4200e-003</b>	<b>9.0100e-003</b>	<b>494.6030</b>

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**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					
General Light Industry	3.62695	0.0391	0.3556	0.2987	2.1300e-003		0.0270	0.0270		0.0270	0.0270		426.6999	426.6999	8.1800e-003	7.8200e-003	429.2356
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	0.427953	4.6200e-003	0.0420	0.0352	2.5000e-004		3.1900e-003	3.1900e-003		3.1900e-003	3.1900e-003		50.3474	50.3474	9.6000e-004	9.2000e-004	50.6466
Single Family Housing	0.124388	1.3400e-003	0.0115	4.8800e-003	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6339	14.6339	2.8000e-004	2.7000e-004	14.7208
<b>Total</b>		<b>0.0451</b>	<b>0.4090</b>	<b>0.3388</b>	<b>2.4500e-003</b>		<b>0.0311</b>	<b>0.0311</b>		<b>0.0311</b>	<b>0.0311</b>		<b>491.6812</b>	<b>491.6812</b>	<b>9.4200e-003</b>	<b>9.0100e-003</b>	<b>494.6030</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734
Unmitigated	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734

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	0.1805					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	5.3700e-003	1.2400e-003	0.1125	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.2107	0.2107	3.2000e-004		0.2187
<b>Total</b>	<b>1.8169</b>	<b>0.0220</b>	<b>0.6210</b>	<b>1.3100e-003</b>		<b>0.0770</b>	<b>0.0770</b>		<b>0.0770</b>	<b>0.0770</b>	<b>9.3669</b>	<b>18.2107</b>	<b>27.5776</b>	<b>0.0283</b>	<b>6.4000e-004</b>	<b>28.4734</b>

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**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	0.1805					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	5.3700e-003	1.2400e-003	0.1125	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.2107	0.2107	3.2000e-004		0.2187
<b>Total</b>	<b>1.8169</b>	<b>0.0220</b>	<b>0.6210</b>	<b>1.3100e-003</b>		<b>0.0770</b>	<b>0.0770</b>		<b>0.0770</b>	<b>0.0770</b>	<b>9.3669</b>	<b>18.2107</b>	<b>27.5776</b>	<b>0.0283</b>	<b>6.4000e-004</b>	<b>28.4734</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**Alexan Specific Plan (Existing Emissions)**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	6.63	1000sqft	0.15	6,630.00	0
General Light Industry	56.19	1000sqft	1.29	56,190.00	0
Other Asphalt Surfaces	221.19	1000sqft	5.08	221,189.00	0
Single Family Housing	1.00	Dwelling Unit	0.27	2,368.00	3

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	483.37	<b>CH4 Intensity (lb/MWhr)</b>	0.52	<b>N2O Intensity (lb/MWhr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

Project Characteristics - RCM Modeling

Land Use - square footage per land use provided by project engineers

Construction Phase - Not modeling construction emissions

Off-road Equipment - Not modeling construction emissions

Trips and VMT - Not modeling construction emissions

Grading - Not modeling construction emissions

Architectural Coating - Not modeling construction emissions

Vehicle Trips - ADT from TIA

Energy Use - LU Code Yr pre-2008 energy use factors

Water And Wastewater - non residential land use - zero out

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	31,410.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	94,230.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,271.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,598.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	4,795.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00



## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	T24E	443.48	820.44
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	21,090.59	39,017.59
tblLandUse	LandUseSquareFeet	221,190.00	221,189.00
tblLandUse	LandUseSquareFeet	1,800.00	2,368.00
tblLandUse	LotAcreage	0.32	0.27
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.37
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblTripsAndVMT	VendorTripNumber	47.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	120.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	ST_TR	1.32	6.01
tblVehicleTrips	ST_TR	10.37	6.01
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	0.68	6.01
tblVehicleTrips	SU_TR	36.63	6.01
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.97	6.01
tblVehicleTrips	WD_TR	9.11	6.01
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	OutdoorWaterUseRate	324,465.98	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**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	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734
Energy	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030
Mobile	1.0347	5.0978	14.9200	0.0432	3.3612	0.0535	3.4147	0.8998	0.0504	0.9502		4,381.6980	4,381.6980	0.2699		4,388.4447
<b>Total</b>	<b>2.8967</b>	<b>5.5288</b>	<b>15.8799</b>	<b>0.0470</b>	<b>3.3612</b>	<b>0.1616</b>	<b>3.5228</b>	<b>0.8998</b>	<b>0.1585</b>	<b>1.0582</b>	<b>9.3669</b>	<b>4,891.5899</b>	<b>4,900.9568</b>	<b>0.3075</b>	<b>9.6500e-003</b>	<b>4,911.5210</b>

**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	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734
Energy	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030
Mobile	1.0347	5.0978	14.9200	0.0432	3.3612	0.0535	3.4147	0.8998	0.0504	0.9502		4,381.6980	4,381.6980	0.2699		4,388.4447
<b>Total</b>	<b>2.8967</b>	<b>5.5288</b>	<b>15.8799</b>	<b>0.0470</b>	<b>3.3612</b>	<b>0.1616</b>	<b>3.5228</b>	<b>0.8998</b>	<b>0.1585</b>	<b>1.0582</b>	<b>9.3669</b>	<b>4,891.5899</b>	<b>4,900.9568</b>	<b>0.3075</b>	<b>9.6500e-003</b>	<b>4,911.5210</b>

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	5/31/2017	5	0	
2	Site Preparation	Site Preparation	6/29/2017	6/28/2017	5	0	
3	Grading	Grading	7/13/2017	7/12/2017	5	0	
4	Building Construction	Building Construction	8/10/2017	8/9/2017	5	0	
5	Paving	Paving	6/28/2018	6/27/2018	5	0	
6	Architectural Coating	Architectural Coating	7/26/2018	7/25/2018	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 5.08**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

#### OffRoad Equipment

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**





























Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0347	5.0978	14.9200	0.0432	3.3612	0.0535	3.4147	0.8998	0.0504	0.9502		4,381.6980	4,381.6980	0.2699		4,388.4447
Unmitigated	1.0347	5.0978	14.9200	0.0432	3.3612	0.0535	3.4147	0.8998	0.0504	0.9502		4,381.6980	4,381.6980	0.2699		4,388.4447

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	337.70	337.70	337.70	1,495,438	1,495,438
Other Asphalt Surfaces	0.00	0.00	0.00		
Place of Worship	39.85	39.85	39.85	84,984	84,984
Single Family Housing	0.00	0.00	0.00		
<b>Total</b>	<b>377.55</b>	<b>377.55</b>	<b>377.55</b>	<b>1,580,422</b>	<b>1,580,422</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Other Asphalt Surfaces	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Place of Worship	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

**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	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030
NaturalGas Unmitigated	0.0451	0.4090	0.3388	2.4600e-003		0.0311	0.0311		0.0311	0.0311		491.6812	491.6812	9.4200e-003	9.0100e-003	494.6030

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**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					
General Light Industry	3626.95	0.0391	0.3556	0.2987	2.1300e-003		0.0270	0.0270		0.0270	0.0270		426.6999	426.6999	8.1800e-003	7.8200e-003	429.2356
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	427.953	4.6200e-003	0.0420	0.0352	2.5000e-004		3.1900e-003	3.1900e-003		3.1900e-003	3.1900e-003		50.3474	50.3474	9.6000e-004	9.2000e-004	50.6466
Single Family Housing	124.388	1.3400e-003	0.0115	4.8800e-003	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6339	14.6339	2.8000e-004	2.7000e-004	14.7208
<b>Total</b>		<b>0.0451</b>	<b>0.4090</b>	<b>0.3388</b>	<b>2.4500e-003</b>		<b>0.0311</b>	<b>0.0311</b>		<b>0.0311</b>	<b>0.0311</b>		<b>491.6812</b>	<b>491.6812</b>	<b>9.4200e-003</b>	<b>9.0100e-003</b>	<b>494.6030</b>

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**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					
General Light Industry	3.62695	0.0391	0.3556	0.2987	2.1300e-003		0.0270	0.0270		0.0270	0.0270		426.6999	426.6999	8.1800e-003	7.8200e-003	429.2356
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	0.427953	4.6200e-003	0.0420	0.0352	2.5000e-004		3.1900e-003	3.1900e-003		3.1900e-003	3.1900e-003		50.3474	50.3474	9.6000e-004	9.2000e-004	50.6466
Single Family Housing	0.124388	1.3400e-003	0.0115	4.8800e-003	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004		14.6339	14.6339	2.8000e-004	2.7000e-004	14.7208
<b>Total</b>		<b>0.0451</b>	<b>0.4090</b>	<b>0.3388</b>	<b>2.4500e-003</b>		<b>0.0311</b>	<b>0.0311</b>		<b>0.0311</b>	<b>0.0311</b>		<b>491.6812</b>	<b>491.6812</b>	<b>9.4200e-003</b>	<b>9.0100e-003</b>	<b>494.6030</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734
Unmitigated	1.8169	0.0220	0.6210	1.3000e-003		0.0770	0.0770		0.0770	0.0770	9.3669	18.2107	27.5776	0.0283	6.4000e-004	28.4734

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	0.1805					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	5.3700e-003	1.2400e-003	0.1125	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.2107	0.2107	3.2000e-004		0.2187
<b>Total</b>	<b>1.8169</b>	<b>0.0220</b>	<b>0.6210</b>	<b>1.3100e-003</b>		<b>0.0770</b>	<b>0.0770</b>		<b>0.0770</b>	<b>0.0770</b>	<b>9.3669</b>	<b>18.2107</b>	<b>27.5776</b>	<b>0.0283</b>	<b>6.4000e-004</b>	<b>28.4734</b>



Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**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	0.1805					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	5.3700e-003	1.2400e-003	0.1125	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.2107	0.2107	3.2000e-004		0.2187
<b>Total</b>	<b>1.8169</b>	<b>0.0220</b>	<b>0.6210</b>	<b>1.3100e-003</b>		<b>0.0770</b>	<b>0.0770</b>		<b>0.0770</b>	<b>0.0770</b>	<b>9.3669</b>	<b>18.2107</b>	<b>27.5776</b>	<b>0.0283</b>	<b>6.4000e-004</b>	<b>28.4734</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**Alexan Specific Plan (Existing Emissions)**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	6.63	1000sqft	0.15	6,630.00	0
General Light Industry	56.19	1000sqft	1.29	56,190.00	0
Other Asphalt Surfaces	221.19	1000sqft	5.08	221,189.00	0
Single Family Housing	1.00	Dwelling Unit	0.27	2,368.00	3

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	483.37	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

Project Characteristics - RCM Modeling

Land Use - square footage per land use provided by project engineers

Construction Phase - Not modeling construction emissions

Off-road Equipment - Not modeling construction emissions

Trips and VMT - Not modeling construction emissions

Grading - Not modeling construction emissions

Architectural Coating - Not modeling construction emissions

Vehicle Trips - ADT from TIA

Energy Use - LU Code Yr pre-2008 energy use factors

Water And Wastewater - non residential land use - zero out

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	31,410.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	94,230.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,271.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,598.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	4,795.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	T24E	443.48	820.44
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	21,090.59	39,017.59
tblLandUse	LandUseSquareFeet	221,190.00	221,189.00
tblLandUse	LandUseSquareFeet	1,800.00	2,368.00
tblLandUse	LotAcreage	0.32	0.27
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.37
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblTripsAndVMT	VendorTripNumber	47.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	120.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	ST_TR	1.32	6.01
tblVehicleTrips	ST_TR	10.37	6.01
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	0.68	6.01
tblVehicleTrips	SU_TR	36.63	6.01
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.97	6.01
tblVehicleTrips	WD_TR	9.11	6.01
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	OutdoorWaterUseRate	324,465.98	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2867	4.1000e-004	0.0204	2.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.1062	0.2280	0.3342	3.5000e-004	1.0000e-005	0.3452
Energy	8.2300e-003	0.0746	0.0618	4.5000e-004		5.6800e-003	5.6800e-003		5.6800e-003	5.6800e-003	0.0000	236.1712	236.1712	0.1681	0.5906	416.3812
Mobile	0.1844	0.9459	2.7589	7.9700e-003	0.5999	9.7000e-003	0.6096	0.1609	9.1300e-003	0.1700	0.0000	733.3170	733.3170	0.0445	0.0000	734.4304
Waste						0.0000	0.0000		0.0000	0.0000	22.0651	0.0000	22.0651	1.3040	0.0000	54.6654
Water						0.0000	0.0000		0.0000	0.0000	4.2089	37.9746	42.1835	0.4731	0.1548	100.1310
<b>Total</b>	<b>0.4793</b>	<b>1.0209</b>	<b>2.8412</b>	<b>8.4400e-003</b>	<b>0.5999</b>	<b>0.0164</b>	<b>0.6163</b>	<b>0.1609</b>	<b>0.0158</b>	<b>0.1767</b>	<b>26.3802</b>	<b>1,007.6908</b>	<b>1,034.0710</b>	<b>1.9901</b>	<b>0.7454</b>	<b>1,305.9532</b>



Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**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	0.2867	4.1000e-004	0.0204	2.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.1062	0.2280	0.3342	3.5000e-004	1.0000e-005	0.3452
Energy	8.2300e-003	0.0746	0.0618	4.5000e-004		5.6800e-003	5.6800e-003		5.6800e-003	5.6800e-003	0.0000	236.1712	236.1712	0.1681	0.5906	416.3812
Mobile	0.1844	0.9459	2.7589	7.9700e-003	0.5999	9.7000e-003	0.6096	0.1609	9.1300e-003	0.1700	0.0000	733.3170	733.3170	0.0445	0.0000	734.4304
Waste						0.0000	0.0000		0.0000	0.0000	22.0651	0.0000	22.0651	1.3040	0.0000	54.6654
Water						0.0000	0.0000		0.0000	0.0000	4.2089	37.9746	42.1835	0.4731	0.1548	100.1310
<b>Total</b>	<b>0.4793</b>	<b>1.0209</b>	<b>2.8412</b>	<b>8.4400e-003</b>	<b>0.5999</b>	<b>0.0164</b>	<b>0.6163</b>	<b>0.1609</b>	<b>0.0158</b>	<b>0.1767</b>	<b>26.3802</b>	<b>1,007.6908</b>	<b>1,034.0710</b>	<b>1.9901</b>	<b>0.7454</b>	<b>1,305.9532</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	5/31/2017	5	0	
2	Site Preparation	Site Preparation	6/29/2017	6/28/2017	5	0	
3	Grading	Grading	7/13/2017	7/12/2017	5	0	
4	Building Construction	Building Construction	8/10/2017	8/9/2017	5	0	
5	Paving	Paving	6/28/2018	6/27/2018	5	0	
6	Architectural Coating	Architectural Coating	7/26/2018	7/25/2018	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 5.08**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**



























Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**3.7 Architectural Coating - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1844	0.9459	2.7589	7.9700e-003	0.5999	9.7000e-003	0.6096	0.1609	9.1300e-003	0.1700	0.0000	733.3170	733.3170	0.0445	0.0000	734.4304
Unmitigated	0.1844	0.9459	2.7589	7.9700e-003	0.5999	9.7000e-003	0.6096	0.1609	9.1300e-003	0.1700	0.0000	733.3170	733.3170	0.0445	0.0000	734.4304

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	337.70	337.70	337.70	1,495,438	1,495,438
Other Asphalt Surfaces	0.00	0.00	0.00		
Place of Worship	39.85	39.85	39.85	84,984	84,984
Single Family Housing	0.00	0.00	0.00		
<b>Total</b>	<b>377.55</b>	<b>377.55</b>	<b>377.55</b>	<b>1,580,422</b>	<b>1,580,422</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Other Asphalt Surfaces	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Place of Worship	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.7679	154.7679	0.1665	0.5891	334.4941
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.7679	154.7679	0.1665	0.5891	334.4941
NaturalGas Mitigated	8.2300e-003	0.0746	0.0618	4.5000e-004		5.6800e-003	5.6800e-003		5.6800e-003	5.6800e-003	0.0000	81.4033	81.4033	1.5600e-003	1.4900e-003	81.8871
NaturalGas Unmitigated	8.2300e-003	0.0746	0.0618	4.5000e-004		5.6800e-003	5.6800e-003		5.6800e-003	5.6800e-003	0.0000	81.4033	81.4033	1.5600e-003	1.4900e-003	81.8871

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**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					
General Light Industry	1.32384e+006	7.1400e-003	0.0649	0.0545	3.9000e-004		4.9300e-003	4.9300e-003		4.9300e-003	4.9300e-003	0.0000	70.6450	70.6450	1.3500e-003	1.3000e-003	71.0648
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	156203	8.4000e-004	7.6600e-003	6.4300e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3356	8.3356	1.6000e-004	1.5000e-004	8.3851
Single Family Housing	45401.6	2.4000e-004	2.0900e-003	8.9000e-004	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4228	2.4228	5.0000e-005	4.0000e-005	2.4372
<b>Total</b>		<b>8.2200e-003</b>	<b>0.0746</b>	<b>0.0618</b>	<b>4.5000e-004</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>	<b>0.0000</b>	<b>81.4033</b>	<b>81.4033</b>	<b>1.5600e-003</b>	<b>1.4900e-003</b>	<b>81.8871</b>

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.32384e+006	7.1400e-003	0.0649	0.0545	3.9000e-004		4.9300e-003	4.9300e-003		4.9300e-003	4.9300e-003	0.0000	70.6450	70.6450	1.3500e-003	1.3000e-003	71.0648
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	156203	8.4000e-004	7.6600e-003	6.4300e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3356	8.3356	1.6000e-004	1.5000e-004	8.3851
Single Family Housing	45401.6	2.4000e-004	2.0900e-003	8.9000e-004	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4228	2.4228	5.0000e-005	4.0000e-005	2.4372
<b>Total</b>		<b>8.2200e-003</b>	<b>0.0746</b>	<b>0.0618</b>	<b>4.5000e-004</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>	<b>0.0000</b>	<b>81.4033</b>	<b>81.4033</b>	<b>1.5600e-003</b>	<b>1.4900e-003</b>	<b>81.8871</b>

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	623709	136.7500	0.1471	0.5206	295.5529
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	73593	16.1355	0.0174	0.0614	34.8730
Single Family Housing	8585.25	1.8823	2.0200e-003	7.1700e-003	4.0682
<b>Total</b>		<b>154.7679</b>	<b>0.1665</b>	<b>0.5891</b>	<b>334.4942</b>

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	623709	136.7500	0.1471	0.5206	295.5529
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	73593	16.1355	0.0174	0.0614	34.8730
Single Family Housing	8585.25	1.8823	2.0200e-003	7.1700e-003	4.0682
<b>Total</b>		<b>154.7679</b>	<b>0.1665</b>	<b>0.5891</b>	<b>334.4942</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2867	4.1000e-004	0.0204	2.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.1062	0.2280	0.3342	3.5000e-004	1.0000e-005	0.3452
Unmitigated	0.2867	4.1000e-004	0.0204	2.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.1062	0.2280	0.3342	3.5000e-004	1.0000e-005	0.3452

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	0.0329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2800e-003	2.6000e-004	6.3600e-003	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.1062	0.2041	0.3103	3.2000e-004	1.0000e-005	0.3204
Landscaping	6.7000e-004	1.5000e-004	0.0141	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0239	0.0239	4.0000e-005	0.0000	0.0248
<b>Total</b>	<b>0.2867</b>	<b>4.1000e-004</b>	<b>0.0204</b>	<b>2.0000e-005</b>		<b>1.0200e-003</b>	<b>1.0200e-003</b>		<b>1.0200e-003</b>	<b>1.0200e-003</b>	<b>0.1062</b>	<b>0.2280</b>	<b>0.3342</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>0.3452</b>

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**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	0.0329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2800e-003	2.6000e-004	6.3600e-003	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.1062	0.2041	0.3103	3.2000e-004	1.0000e-005	0.3204
Landscaping	6.7000e-004	1.5000e-004	0.0141	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0239	0.0239	4.0000e-005	0.0000	0.0248
<b>Total</b>	<b>0.2867</b>	<b>4.1000e-004</b>	<b>0.0204</b>	<b>2.0000e-005</b>		<b>1.0200e-003</b>	<b>1.0200e-003</b>		<b>1.0200e-003</b>	<b>1.0200e-003</b>	<b>0.1062</b>	<b>0.2280</b>	<b>0.3342</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>0.3452</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**



Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	42.1835	0.4731	0.1548	100.1310
Unmitigated	42.1835	0.4731	0.1548	100.1310

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.9939 / 0	41.2187	0.4633	0.1512	97.8617
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	0.207445 / 0	0.6581	7.4000e-003	2.4100e-003	1.5623
Single Family Housing	0.065154 / 0.0410754	0.3067	2.4300e-003	1.1400e-003	0.7069
<b>Total</b>		<b>42.1835</b>	<b>0.4732</b>	<b>0.1548</b>	<b>100.1310</b>

## Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.9939 / 0	41.2187	0.4633	0.1512	97.8617
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	0.207445 / 0	0.6581	7.4000e-003	2.4100e-003	1.5623
Single Family Housing	0.065154 / 0.0410754	0.3067	2.4300e-003	1.1400e-003	0.7069
<b>Total</b>		<b>42.1835</b>	<b>0.4732</b>	<b>0.1548</b>	<b>100.1310</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22.0651	1.3040	0.0000	54.6654
Unmitigated	22.0651	1.3040	0.0000	54.6654

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	69.68	14.1444	0.8359	0.0000	35.0422
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	37.79	7.6710	0.4533	0.0000	19.0047
Single Family Housing	1.23	0.2497	0.0148	0.0000	0.6186
<b>Total</b>		<b>22.0651</b>	<b>1.3040</b>	<b>0.0000</b>	<b>54.6654</b>

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	69.68	14.1444	0.8359	0.0000	35.0422
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	37.79	7.6710	0.4533	0.0000	19.0047
Single Family Housing	1.23	0.2497	0.0148	0.0000	0.6186
<b>Total</b>		<b>22.0651</b>	<b>1.3040</b>	<b>0.0000</b>	<b>54.6654</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

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

Alexan Specific Plan (Existing Emissions) - Los Angeles-South Coast County, Annual

Equipment Type	Number
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## 11.0 Vegetation

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## Appendix A1

CalEEMod Existing Emissions Estimates: GP/CZA Area

Summer, Winter, and Annual Output Files

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**Monrovia General Plan/Zoning Amendment (Existing Emissions)**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	1.20	3,719.00	11
General Light Industry	14.56	1000sqft	0.33	14,560.00	0
Refrigerated Warehouse-No Rail	10.12	1000sqft	0.23	10,120.00	0
Other Asphalt Surfaces	46.33	1000sqft	1.06	46,325.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	483.37	<b>CH4 Intensity (lb/MWhr)</b>	0.52	<b>N2O Intensity (lb/MWhr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

Project Characteristics - RCM Modeling

Land Use - Land use square footage provided by project engineers

Construction Phase - Not modeling construction emissions

Off-road Equipment - Not modeling construction emissions

Grading - Not modeling construction emissions

Trips and VMT - Not modeling construction emissions

Architectural Coating - Not modeling construction emissions

Vehicle Trips - Estimated ADT from TIA

Energy Use - LU Code Yr pre-2008 for energy use

Water And Wastewater -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	12,340.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	37,020.00	0.00
tblArchitecturalCoating	ConstArea_Parking	2,780.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,510.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	7,531.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	6.00	0.00
tblConstructionPhase	NumDays	10.00	0.00



## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

tblConstructionPhase	NumDays	3.00	0.00
tblConstructionPhase	PhaseEndDate	6/12/2018	5/29/2018
tblConstructionPhase	PhaseEndDate	5/15/2018	7/11/2017
tblConstructionPhase	PhaseEndDate	6/28/2017	5/31/2017
tblConstructionPhase	PhaseEndDate	7/11/2017	7/3/2017
tblConstructionPhase	PhaseEndDate	5/29/2018	5/15/2018
tblConstructionPhase	PhaseEndDate	7/3/2017	6/28/2017
tblEnergyUse	T24E	443.48	820.44
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	0.94	1.32
tblEnergyUse	T24NG	21,090.59	39,017.59
tblLandUse	LandUseSquareFeet	7,200.00	3,719.00
tblLandUse	LotAcreage	1.30	1.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.37
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblTripsAndVMT	VendorTripNumber	12.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	31.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

tblTripsAndVMT	WorkerTripNumber	6.00	0.00
tblVehicleTrips	ST_TR	1.32	4.79
tblVehicleTrips	ST_TR	1.68	4.79
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	0.68	4.79
tblVehicleTrips	SU_TR	1.68	4.79
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.97	4.79
tblVehicleTrips	WD_TR	1.68	4.79
tblVehicleTrips	WD_TR	9.52	0.00

**2.0 Emissions Summary**

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Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**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	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444
Energy	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338
Mobile	0.3389	1.5889	5.1320	0.0148	1.0987	0.0174	1.1160	0.2941	0.0164	0.3105		1,503.0565	1,503.0565	0.0888		1,505.2758
<b>Total</b>	<b>2.0652</b>	<b>1.8176</b>	<b>7.6060</b>	<b>0.0209</b>	<b>1.0987</b>	<b>0.3358</b>	<b>1.4344</b>	<b>0.2941</b>	<b>0.3347</b>	<b>0.6288</b>	<b>37.4677</b>	<b>1,749.3678</b>	<b>1,786.8355</b>	<b>0.2045</b>	<b>5.7200e-003</b>	<b>1,793.6541</b>

**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	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444
Energy	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338
Mobile	0.3389	1.5889	5.1320	0.0148	1.0987	0.0174	1.1160	0.2941	0.0164	0.3105		1,503.0565	1,503.0565	0.0888		1,505.2758
<b>Total</b>	<b>2.0652</b>	<b>1.8176</b>	<b>7.6060</b>	<b>0.0209</b>	<b>1.0987</b>	<b>0.3358</b>	<b>1.4344</b>	<b>0.2941</b>	<b>0.3347</b>	<b>0.6288</b>	<b>37.4677</b>	<b>1,749.3678</b>	<b>1,786.8355</b>	<b>0.2045</b>	<b>5.7200e-003</b>	<b>1,793.6541</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	5/31/2017	5	0	
2	Site Preparation	Site Preparation	6/29/2017	6/28/2017	5	0	
3	Grading	Grading	7/4/2017	7/3/2017	5	0	
4	Building Construction	Building Construction	7/12/2017	7/11/2017	5	0	
5	Paving	Paving	5/16/2018	5/15/2018	5	0	
6	Architectural Coating	Architectural Coating	5/30/2018	5/29/2018	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**





























Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3389	1.5889	5.1320	0.0148	1.0987	0.0174	1.1160	0.2941	0.0164	0.3105		1,503.0565	1,503.0565	0.0888		1,505.2758
Unmitigated	0.3389	1.5889	5.1320	0.0148	1.0987	0.0174	1.1160	0.2941	0.0164	0.3105		1,503.0565	1,503.0565	0.0888		1,505.2758

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	69.74	69.74	69.74	308,839	308,839
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	48.47	48.47	48.47	207,749	207,749
Single Family Housing	0.00	0.00	0.00		
<b>Total</b>	<b>118.22</b>	<b>118.22</b>	<b>118.22</b>	<b>516,588</b>	<b>516,588</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Other Asphalt Surfaces	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Refrigerated Warehouse-No Rail	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

**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	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338
NaturalGas Unmitigated	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**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					
General Light Industry	939.818	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5668	110.5668	2.1200e-003	2.0300e-003	111.2239
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	39.0937	4.2000e-004	3.8300e-003	3.2200e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5993	4.5993	9.0000e-005	8.0000e-005	4.6266
Single Family Housing	497.552	5.3700e-003	0.0459	0.0195	2.9000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003		58.5355	58.5355	1.1200e-003	1.0700e-003	58.8833
<b>Total</b>		<b>0.0159</b>	<b>0.1418</b>	<b>0.1001</b>	<b>8.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>		<b>173.7016</b>	<b>173.7016</b>	<b>3.3300e-003</b>	<b>3.1800e-003</b>	<b>174.7338</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**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					
General Light Industry	0.939818	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5668	110.5668	2.1200e-003	2.0300e-003	111.2239
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.0390937	4.2000e-004	3.8300e-003	3.2200e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5993	4.5993	9.0000e-005	8.0000e-005	4.6266
Single Family Housing	0.497552	5.3700e-003	0.0459	0.0195	2.9000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003		58.5355	58.5355	1.1200e-003	1.0700e-003	58.8833
<b>Total</b>		<b>0.0159</b>	<b>0.1418</b>	<b>0.1001</b>	<b>8.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>		<b>173.7016</b>	<b>173.7016</b>	<b>3.3300e-003</b>	<b>3.1800e-003</b>	<b>174.7338</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444
Unmitigated	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444

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	0.0726					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5787					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0830	2.0342	5.1900e-003		0.3056	0.3056		0.3056	0.3056	37.4677	72.0000	109.4677	0.1117	2.5400e-003	113.0189
Landscaping	0.0110	3.9300e-003	0.3397	2.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003		0.6098	0.6098	6.3000e-004		0.6255
<b>Total</b>	<b>1.7104</b>	<b>0.0869</b>	<b>2.3739</b>	<b>5.2100e-003</b>		<b>0.3074</b>	<b>0.3074</b>		<b>0.3074</b>	<b>0.3074</b>	<b>37.4677</b>	<b>72.6098</b>	<b>110.0774</b>	<b>0.1124</b>	<b>2.5400e-003</b>	<b>113.6444</b>



Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**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	0.0726					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5787					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0830	2.0342	5.1900e-003		0.3056	0.3056		0.3056	0.3056	37.4677	72.0000	109.4677	0.1117	2.5400e-003	113.0189
Landscaping	0.0110	3.9300e-003	0.3397	2.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003		0.6098	0.6098	6.3000e-004		0.6255
<b>Total</b>	<b>1.7104</b>	<b>0.0869</b>	<b>2.3739</b>	<b>5.2100e-003</b>		<b>0.3074</b>	<b>0.3074</b>		<b>0.3074</b>	<b>0.3074</b>	<b>37.4677</b>	<b>72.6098</b>	<b>110.0774</b>	<b>0.1124</b>	<b>2.5400e-003</b>	<b>113.6444</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**Monrovia General Plan/Zoning Amendment (Existing Emissions)**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	1.20	3,719.00	11
General Light Industry	14.56	1000sqft	0.33	14,560.00	0
Refrigerated Warehouse-No Rail	10.12	1000sqft	0.23	10,120.00	0
Other Asphalt Surfaces	46.33	1000sqft	1.06	46,325.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	483.37	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

Project Characteristics - RCM Modeling

Land Use - Land use square footage provided by project engineers

Construction Phase - Not modeling construction emissions

Off-road Equipment - Not modeling construction emissions

Grading - Not modeling construction emissions

Trips and VMT - Not modeling construction emissions

Architectural Coating - Not modeling construction emissions

Vehicle Trips - Estimated ADT from TIA

Energy Use - LU Code Yr pre-2008 for energy use

Water And Wastewater -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	12,340.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	37,020.00	0.00
tblArchitecturalCoating	ConstArea_Parking	2,780.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,510.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	7,531.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	6.00	0.00
tblConstructionPhase	NumDays	10.00	0.00

## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

tblConstructionPhase	NumDays	3.00	0.00
tblConstructionPhase	PhaseEndDate	6/12/2018	5/29/2018
tblConstructionPhase	PhaseEndDate	5/15/2018	7/11/2017
tblConstructionPhase	PhaseEndDate	6/28/2017	5/31/2017
tblConstructionPhase	PhaseEndDate	7/11/2017	7/3/2017
tblConstructionPhase	PhaseEndDate	5/29/2018	5/15/2018
tblConstructionPhase	PhaseEndDate	7/3/2017	6/28/2017
tblEnergyUse	T24E	443.48	820.44
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	0.94	1.32
tblEnergyUse	T24NG	21,090.59	39,017.59
tblLandUse	LandUseSquareFeet	7,200.00	3,719.00
tblLandUse	LotAcreage	1.30	1.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.37
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblTripsAndVMT	VendorTripNumber	12.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	31.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

tblTripsAndVMT	WorkerTripNumber	6.00	0.00
tblVehicleTrips	ST_TR	1.32	4.79
tblVehicleTrips	ST_TR	1.68	4.79
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	0.68	4.79
tblVehicleTrips	SU_TR	1.68	4.79
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.97	4.79
tblVehicleTrips	WD_TR	1.68	4.79
tblVehicleTrips	WD_TR	9.52	0.00

**2.0 Emissions Summary**

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Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**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	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444
Energy	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338
Mobile	0.3313	1.6471	4.8452	0.0141	1.0987	0.0175	1.1161	0.2941	0.0164	0.3105		1,429.9586	1,429.9586	0.0877		1,432.1519
<b>Total</b>	<b>2.0576</b>	<b>1.8758</b>	<b>7.3192</b>	<b>0.0202</b>	<b>1.0987</b>	<b>0.3358</b>	<b>1.4345</b>	<b>0.2941</b>	<b>0.3348</b>	<b>0.6289</b>	<b>37.4677</b>	<b>1,676.2699</b>	<b>1,713.7376</b>	<b>0.2034</b>	<b>5.7200e-003</b>	<b>1,720.5301</b>

**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	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444
Energy	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338
Mobile	0.3313	1.6471	4.8452	0.0141	1.0987	0.0175	1.1161	0.2941	0.0164	0.3105		1,429.9586	1,429.9586	0.0877		1,432.1519
<b>Total</b>	<b>2.0576</b>	<b>1.8758</b>	<b>7.3192</b>	<b>0.0202</b>	<b>1.0987</b>	<b>0.3358</b>	<b>1.4345</b>	<b>0.2941</b>	<b>0.3348</b>	<b>0.6289</b>	<b>37.4677</b>	<b>1,676.2699</b>	<b>1,713.7376</b>	<b>0.2034</b>	<b>5.7200e-003</b>	<b>1,720.5301</b>



## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	5/31/2017	5	0	
2	Site Preparation	Site Preparation	6/29/2017	6/28/2017	5	0	
3	Grading	Grading	7/4/2017	7/3/2017	5	0	
4	Building Construction	Building Construction	7/12/2017	7/11/2017	5	0	
5	Paving	Paving	5/16/2018	5/15/2018	5	0	
6	Architectural Coating	Architectural Coating	5/30/2018	5/29/2018	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 1.06**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

#### OffRoad Equipment

## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**



























Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3313	1.6471	4.8452	0.0141	1.0987	0.0175	1.1161	0.2941	0.0164	0.3105		1,429.9586	1,429.9586	0.0877		1,432.1519
Unmitigated	0.3313	1.6471	4.8452	0.0141	1.0987	0.0175	1.1161	0.2941	0.0164	0.3105		1,429.9586	1,429.9586	0.0877		1,432.1519

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	69.74	69.74	69.74	308,839	308,839
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	48.47	48.47	48.47	207,749	207,749
Single Family Housing	0.00	0.00	0.00		
<b>Total</b>	<b>118.22</b>	<b>118.22</b>	<b>118.22</b>	<b>516,588</b>	<b>516,588</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix



Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Other Asphalt Surfaces	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Refrigerated Warehouse-No Rail	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338
NaturalGas Unmitigated	0.0159	0.1418	0.1001	8.7000e-004		0.0110	0.0110		0.0110	0.0110		173.7016	173.7016	3.3300e-003	3.1800e-003	174.7338

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**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					
General Light Industry	939.818	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5668	110.5668	2.1200e-003	2.0300e-003	111.2239
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	39.0937	4.2000e-004	3.8300e-003	3.2200e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5993	4.5993	9.0000e-005	8.0000e-005	4.6266
Single Family Housing	497.552	5.3700e-003	0.0459	0.0195	2.9000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003		58.5355	58.5355	1.1200e-003	1.0700e-003	58.8833
<b>Total</b>		<b>0.0159</b>	<b>0.1418</b>	<b>0.1001</b>	<b>8.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>		<b>173.7016</b>	<b>173.7016</b>	<b>3.3300e-003</b>	<b>3.1800e-003</b>	<b>174.7338</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**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					
General Light Industry	0.939818	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5668	110.5668	2.1200e-003	2.0300e-003	111.2239
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0.0390937	4.2000e-004	3.8300e-003	3.2200e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5993	4.5993	9.0000e-005	8.0000e-005	4.6266
Single Family Housing	0.497552	5.3700e-003	0.0459	0.0195	2.9000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003		58.5355	58.5355	1.1200e-003	1.0700e-003	58.8833
<b>Total</b>		<b>0.0159</b>	<b>0.1418</b>	<b>0.1001</b>	<b>8.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>		<b>173.7016</b>	<b>173.7016</b>	<b>3.3300e-003</b>	<b>3.1800e-003</b>	<b>174.7338</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444
Unmitigated	1.7104	0.0869	2.3739	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.6098	110.0774	0.1124	2.5400e-003	113.6444

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	0.0726					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5787					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0830	2.0342	5.1900e-003		0.3056	0.3056		0.3056	0.3056	37.4677	72.0000	109.4677	0.1117	2.5400e-003	113.0189
Landscaping	0.0110	3.9300e-003	0.3397	2.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003		0.6098	0.6098	6.3000e-004		0.6255
<b>Total</b>	<b>1.7104</b>	<b>0.0869</b>	<b>2.3739</b>	<b>5.2100e-003</b>		<b>0.3074</b>	<b>0.3074</b>		<b>0.3074</b>	<b>0.3074</b>	<b>37.4677</b>	<b>72.6098</b>	<b>110.0774</b>	<b>0.1124</b>	<b>2.5400e-003</b>	<b>113.6444</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**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	0.0726					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5787					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0830	2.0342	5.1900e-003		0.3056	0.3056		0.3056	0.3056	37.4677	72.0000	109.4677	0.1117	2.5400e-003	113.0189
Landscaping	0.0110	3.9300e-003	0.3397	2.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003		0.6098	0.6098	6.3000e-004		0.6255
<b>Total</b>	<b>1.7104</b>	<b>0.0869</b>	<b>2.3739</b>	<b>5.2100e-003</b>		<b>0.3074</b>	<b>0.3074</b>		<b>0.3074</b>	<b>0.3074</b>	<b>37.4677</b>	<b>72.6098</b>	<b>110.0774</b>	<b>0.1124</b>	<b>2.5400e-003</b>	<b>113.6444</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**Monrovia General Plan/Zoning Amendment (Existing Emissions)  
Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	1.20	3,719.00	11
General Light Industry	14.56	1000sqft	0.33	14,560.00	0
Refrigerated Warehouse-No Rail	10.12	1000sqft	0.23	10,120.00	0
Other Asphalt Surfaces	46.33	1000sqft	1.06	46,325.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	483.37	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

Project Characteristics - RCM Modeling

Land Use - Land use square footage provided by project engineers

Construction Phase - Not modeling construction emissions

Off-road Equipment - Not modeling construction emissions

Grading - Not modeling construction emissions

Trips and VMT - Not modeling construction emissions

Architectural Coating - Not modeling construction emissions

Vehicle Trips - Estimated ADT from TIA

Energy Use - LU Code Yr pre-2008 for energy use

Water And Wastewater -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	12,340.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	37,020.00	0.00
tblArchitecturalCoating	ConstArea_Parking	2,780.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,510.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	7,531.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	6.00	0.00
tblConstructionPhase	NumDays	10.00	0.00



## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

tblConstructionPhase	NumDays	3.00	0.00
tblConstructionPhase	PhaseEndDate	6/12/2018	5/29/2018
tblConstructionPhase	PhaseEndDate	5/15/2018	7/11/2017
tblConstructionPhase	PhaseEndDate	6/28/2017	5/31/2017
tblConstructionPhase	PhaseEndDate	7/11/2017	7/3/2017
tblConstructionPhase	PhaseEndDate	5/29/2018	5/15/2018
tblConstructionPhase	PhaseEndDate	7/3/2017	6/28/2017
tblEnergyUse	T24E	443.48	820.44
tblEnergyUse	T24NG	13.65	19.11
tblEnergyUse	T24NG	0.94	1.32
tblEnergyUse	T24NG	21,090.59	39,017.59
tblLandUse	LandUseSquareFeet	7,200.00	3,719.00
tblLandUse	LotAcreage	1.30	1.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.37
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblTripsAndVMT	VendorTripNumber	12.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	31.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

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tblTripsAndVMT	WorkerTripNumber	6.00	0.00
tblVehicleTrips	ST_TR	1.32	4.79
tblVehicleTrips	ST_TR	1.68	4.79
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	0.68	4.79
tblVehicleTrips	SU_TR	1.68	4.79
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.97	4.79
tblVehicleTrips	WD_TR	1.68	4.79
tblVehicleTrips	WD_TR	9.52	0.00

**2.0 Emissions Summary**

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Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1333	1.5300e-003	0.0679	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8856	1.3105	1.3400e-003	3.0000e-005	1.3526
Energy	2.9100e-003	0.0259	0.0183	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	108.9102	108.9102	0.0868	0.3056	202.1585
Mobile	0.0591	0.3056	0.8963	2.6000e-003	0.1961	3.1600e-003	0.1993	0.0526	2.9800e-003	0.0556	0.0000	239.3016	239.3016	0.0145	0.0000	239.6636
Waste						0.0000	0.0000		0.0000	0.0000	6.5099	0.0000	6.5099	0.3847	0.0000	16.1281
Water						0.0000	0.0000		0.0000	0.0000	1.8933	17.4378	19.3312	0.2132	0.0710	45.8110
<b>Total</b>	<b>0.1953</b>	<b>0.3330</b>	<b>0.9824</b>	<b>2.8300e-003</b>	<b>0.1961</b>	<b>9.2200e-003</b>	<b>0.2053</b>	<b>0.0526</b>	<b>9.0400e-003</b>	<b>0.0616</b>	<b>8.8281</b>	<b>366.5352</b>	<b>375.3633</b>	<b>0.7006</b>	<b>0.3766</b>	<b>505.1137</b>

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**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	0.1333	1.5300e-003	0.0679	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8856	1.3105	1.3400e-003	3.0000e-005	1.3526
Energy	2.9100e-003	0.0259	0.0183	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	108.9102	108.9102	0.0868	0.3056	202.1585
Mobile	0.0591	0.3056	0.8963	2.6000e-003	0.1961	3.1600e-003	0.1993	0.0526	2.9800e-003	0.0556	0.0000	239.3016	239.3016	0.0145	0.0000	239.6636
Waste						0.0000	0.0000		0.0000	0.0000	6.5099	0.0000	6.5099	0.3847	0.0000	16.1281
Water						0.0000	0.0000		0.0000	0.0000	1.8933	17.4378	19.3312	0.2132	0.0710	45.8110
<b>Total</b>	<b>0.1953</b>	<b>0.3330</b>	<b>0.9824</b>	<b>2.8300e-003</b>	<b>0.1961</b>	<b>9.2200e-003</b>	<b>0.2053</b>	<b>0.0526</b>	<b>9.0400e-003</b>	<b>0.0616</b>	<b>8.8281</b>	<b>366.5352</b>	<b>375.3633</b>	<b>0.7006</b>	<b>0.3766</b>	<b>505.1137</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	5/31/2017	5	0	
2	Site Preparation	Site Preparation	6/29/2017	6/28/2017	5	0	
3	Grading	Grading	7/4/2017	7/3/2017	5	0	
4	Building Construction	Building Construction	7/12/2017	7/11/2017	5	0	
5	Paving	Paving	5/16/2018	5/15/2018	5	0	
6	Architectural Coating	Architectural Coating	5/30/2018	5/29/2018	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 1.06**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**





























Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**3.7 Architectural Coating - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0591	0.3056	0.8963	2.6000e-003	0.1961	3.1600e-003	0.1993	0.0526	2.9800e-003	0.0556	0.0000	239.3016	239.3016	0.0145	0.0000	239.6636
Unmitigated	0.0591	0.3056	0.8963	2.6000e-003	0.1961	3.1600e-003	0.1993	0.0526	2.9800e-003	0.0556	0.0000	239.3016	239.3016	0.0145	0.0000	239.6636

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	69.74	69.74	69.74	308,839	308,839
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	48.47	48.47	48.47	207,749	207,749
Single Family Housing	0.00	0.00	0.00		
<b>Total</b>	<b>118.22</b>	<b>118.22</b>	<b>118.22</b>	<b>516,588</b>	<b>516,588</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Other Asphalt Surfaces	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Refrigerated Warehouse-No Rail	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.1519	80.1519	0.0862	0.3051	173.2294
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.1519	80.1519	0.0862	0.3051	173.2294
NaturalGas Mitigated	2.9100e-003	0.0259	0.0183	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	28.7583	28.7583	5.5000e-004	5.3000e-004	28.9291
NaturalGas Unmitigated	2.9100e-003	0.0259	0.0183	1.6000e-004		2.0100e-003	2.0100e-003		2.0100e-003	2.0100e-003	0.0000	28.7583	28.7583	5.5000e-004	5.3000e-004	28.9291

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**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					
General Light Industry	343034	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3056	18.3056	3.5000e-004	3.4000e-004	18.4144
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	14269.2	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7615	0.7615	1.0000e-005	1.0000e-005	0.7660
Single Family Housing	181606	9.8000e-004	8.3700e-003	3.5600e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	9.6912	9.6912	1.9000e-004	1.8000e-004	9.7488
<b>Total</b>		<b>2.9100e-003</b>	<b>0.0259</b>	<b>0.0183</b>	<b>1.5000e-004</b>		<b>2.0100e-003</b>	<b>2.0100e-003</b>		<b>2.0100e-003</b>	<b>2.0100e-003</b>	<b>0.0000</b>	<b>28.7583</b>	<b>28.7583</b>	<b>5.5000e-004</b>	<b>5.3000e-004</b>	<b>28.9291</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	343034	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3056	18.3056	3.5000e-004	3.4000e-004	18.4144
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	14269.2	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7615	0.7615	1.0000e-005	1.0000e-005	0.7660
Single Family Housing	181606	9.8000e-004	8.3700e-003	3.5600e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	9.6912	9.6912	1.9000e-004	1.8000e-004	9.7488
<b>Total</b>		<b>2.9100e-003</b>	<b>0.0259</b>	<b>0.0183</b>	<b>1.5000e-004</b>		<b>2.0100e-003</b>	<b>2.0100e-003</b>		<b>2.0100e-003</b>	<b>2.0100e-003</b>	<b>0.0000</b>	<b>28.7583</b>	<b>28.7583</b>	<b>5.5000e-004</b>	<b>5.3000e-004</b>	<b>28.9291</b>



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**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	161616	35.4348	0.0381	0.1349	76.5839
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	169611	37.1878	0.0400	0.1416	80.3725
Single Family Housing	34341	7.5294	8.1000e-003	0.0287	16.2729
<b>Total</b>		<b>80.1519</b>	<b>0.0862</b>	<b>0.3051</b>	<b>173.2294</b>

## Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	161616	35.4348	0.0381	0.1349	76.5839
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	169611	37.1878	0.0400	0.1416	80.3725
Single Family Housing	34341	7.5294	8.1000e-003	0.0287	16.2729
<b>Total</b>		<b>80.1519</b>	<b>0.0862</b>	<b>0.3051</b>	<b>173.2294</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1333	1.5300e-003	0.0679	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8856	1.3105	1.3400e-003	3.0000e-005	1.3526
Unmitigated	0.1333	1.5300e-003	0.0679	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8856	1.3105	1.3400e-003	3.0000e-005	1.3526

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	0.0133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1056					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0131	1.0400e-003	0.0254	6.0000e-005		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.4249	0.8165	1.2413	1.2700e-003	3.0000e-005	1.2816
Landscaping	1.3700e-003	4.9000e-004	0.0425	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.0691	0.0691	7.0000e-005	0.0000	0.0709
<b>Total</b>	<b>0.1333</b>	<b>1.5300e-003</b>	<b>0.0679</b>	<b>6.0000e-005</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>	<b>0.4249</b>	<b>0.8856</b>	<b>1.3105</b>	<b>1.3400e-003</b>	<b>3.0000e-005</b>	<b>1.3525</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**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	0.0133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1056					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0131	1.0400e-003	0.0254	6.0000e-005		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.4249	0.8165	1.2413	1.2700e-003	3.0000e-005	1.2816
Landscaping	1.3700e-003	4.9000e-004	0.0425	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.0691	0.0691	7.0000e-005	0.0000	0.0709
<b>Total</b>	<b>0.1333</b>	<b>1.5300e-003</b>	<b>0.0679</b>	<b>6.0000e-005</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>	<b>0.4249</b>	<b>0.8856</b>	<b>1.3105</b>	<b>1.3400e-003</b>	<b>3.0000e-005</b>	<b>1.3525</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.3312	0.2132	0.0710	45.8110
Unmitigated	19.3312	0.2132	0.0710	45.8110

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.367 / 0	10.6806	0.1201	0.0392	25.3580
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.34025 / 0	7.4236	0.0834	0.0272	17.6252
Single Family Housing	0.260616 / 0.164301	1.2269	9.7200e-003	4.5600e-003	2.8278
<b>Total</b>		<b>19.3312</b>	<b>0.2132</b>	<b>0.0710</b>	<b>45.8110</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.367 / 0	10.6806	0.1201	0.0392	25.3580
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	2.34025 / 0	7.4236	0.0834	0.0272	17.6252
Single Family Housing	0.260616 / 0.164301	1.2269	9.7200e-003	4.5600e-003	2.8278
<b>Total</b>		<b>19.3312</b>	<b>0.2132</b>	<b>0.0710</b>	<b>45.8110</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.5099	0.3847	0.0000	16.1281
Unmitigated	6.5099	0.3847	0.0000	16.1281

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	18.05	3.6640	0.2165	0.0000	9.0774
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	9.51	1.9304	0.1141	0.0000	4.7826
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
<b>Total</b>		<b>6.5099</b>	<b>0.3847</b>	<b>0.0000</b>	<b>16.1281</b>

Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	18.05	3.6640	0.2165	0.0000	9.0774
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	9.51	1.9304	0.1141	0.0000	4.7826
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
<b>Total</b>		<b>6.5099</b>	<b>0.3847</b>	<b>0.0000</b>	<b>16.1281</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

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



Monrovia General Plan/Zoning Amendment (Existing Emissions) - Los Angeles-South Coast County, Annual

Equipment Type	Number
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**11.0 Vegetation**

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## **APPENDIX B: AERMOD Output Files**

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**Alexan Specific Plan (Project Emissions) CH**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.64	Acre	2.64	114,880.00	0
Unenclosed Parking with Elevator	786.00	Space	1.04	292,312.00	0
Apartments Mid Rise	439.00	Dwelling Unit	2.44	543,496.00	1256

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Project Characteristics - Adjusted Intensities

Land Use - Per Site Plan

Construction Phase - Per Construction Schedule

Off-road Equipment - Per Grading Plan

Demolition -

Grading - Per Grading Plan

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Per TIA

Woodstoves - Per Regulations

Area Coating - SCAQMD Rule 1113

Energy Use - 2020 Standards

Solid Waste - AB341 diversion rate of 75%

Sequestration -

Construction Off-road Equipment Mitigation - Rule 403 Thrice Daily Watering. Replace Ground Cover 15% Reduction.

Fleet Mix - No buses or motorhomes.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblAreaCoating	Area_EF_Parking	100	10
tblAreaCoating	Area_EF_Residential_Exterior	50	10
tblAreaCoating	Area_EF_Residential_Interior	50	10
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	69
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	69
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	20.00

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	467.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblEnergyUse	T24E	252.63	118.74
tblFireplaces	NumberGas	373.15	1.00
tblFireplaces	NumberNoFireplace	43.90	438.00
tblFireplaces	NumberWood	21.95	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	20.50	20.00

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

tblGrading	AcresOfGrading	20.00	10.00
tblGrading	MaterialImported	0.00	14,000.00
tblLandUse	LandUseSquareFeet	114,998.40	114,880.00
tblLandUse	LandUseSquareFeet	314,400.00	292,312.00
tblLandUse	LandUseSquareFeet	439,000.00	543,496.00
tblLandUse	LotAcreage	7.07	1.04
tblLandUse	LotAcreage	11.55	2.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSequestration	NumberOfNewTrees	0.00	150.00
tblSolidWaste	SolidWasteGenerationRate	201.94	50.49
tblVehicleTrips	ST_TR	6.39	4.27
tblVehicleTrips	SU_TR	5.86	4.27
tblVehicleTrips	WD_TR	6.65	4.27
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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					
2020	4.8980	53.1613	41.3488	0.1140	18.7977	2.4942	21.2919	10.0413	2.2946	12.3359	0.0000	11,438.8143	11,438.8143	1.4958	0.0000	11,463.7181
2021	4.3350	29.9352	39.0838	0.1119	6.1734	1.0252	7.1986	1.6538	0.9634	2.6172	0.0000	11,232.8123	11,232.8123	0.9640	0.0000	11,256.9131
2022	86.3021	27.4374	37.1982	0.1097	6.1734	0.8714	7.0448	1.6538	0.8193	2.4731	0.0000	11,011.4017	11,011.4017	0.9379	0.0000	11,034.8489
<b>Maximum</b>	<b>86.3021</b>	<b>53.1613</b>	<b>41.3488</b>	<b>0.1140</b>	<b>18.7977</b>	<b>2.4942</b>	<b>21.2919</b>	<b>10.0413</b>	<b>2.2946</b>	<b>12.3359</b>	<b>0.0000</b>	<b>11,438.8143</b>	<b>11,438.8143</b>	<b>1.4958</b>	<b>0.0000</b>	<b>11,463.7181</b>

**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					
2020	4.8980	53.1613	41.3488	0.1140	6.1733	2.4942	7.5955	2.6852	2.2946	4.9798	0.0000	11,438.8143	11,438.8143	1.4958	0.0000	11,463.7181
2021	4.3350	29.9352	39.0838	0.1119	6.1734	1.0252	7.1986	1.6538	0.9634	2.6172	0.0000	11,232.8123	11,232.8123	0.9640	0.0000	11,256.9131
2022	86.3021	27.4374	37.1982	0.1097	6.1734	0.8714	7.0448	1.6538	0.8193	2.4731	0.0000	11,011.4017	11,011.4017	0.9379	0.0000	11,034.8489
<b>Maximum</b>	<b>86.3021</b>	<b>53.1613</b>	<b>41.3488</b>	<b>0.1140</b>	<b>6.1734</b>	<b>2.4942</b>	<b>7.5955</b>	<b>2.6852</b>	<b>2.2946</b>	<b>4.9798</b>	<b>0.0000</b>	<b>11,438.8143</b>	<b>11,438.8143</b>	<b>1.4958</b>	<b>0.0000</b>	<b>11,463.7181</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	40.53	0.00	38.54	55.11	0.00	42.21	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.6710	14,015.6710	0.4045		14,025.7834
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.2541</b>	<b>6.7811</b>	<b>77.7287</b>	<b>0.1516</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,997.7764</b>	<b>15,997.7764</b>	<b>0.5044</b>	<b>0.0351</b>	<b>16,020.8580</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.6710	14,015.6710	0.4045		14,025.7834
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.2541</b>	<b>6.7811</b>	<b>77.7287</b>	<b>0.1516</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,997.7764</b>	<b>15,997.7764</b>	<b>0.5044</b>	<b>0.0351</b>	<b>16,020.8580</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	2/26/2020	5	41	
2	Site Preparation	Site Preparation	2/27/2020	3/25/2020	5	20	
3	Grading	Grading	3/26/2020	5/21/2020	5	41	
4	Building Construction	Building Construction	5/22/2020	3/7/2022	5	467	
5	Paving	Paving	3/8/2022	5/3/2022	5	41	
6	Architectural Coating	Architectural Coating	5/4/2022	6/29/2022	5	41	

**Acres of Grading (Site Preparation Phase): 10**

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 3.68**

**Residential Indoor: 1,100,579; Residential Outdoor: 366,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,432 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

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	Crawler Tractors	2	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	297.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	487.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	97.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.5651	0.0000	1.5651	0.2370	0.0000	0.2370			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>1.5651</b>	<b>1.6587</b>	<b>3.2238</b>	<b>0.2370</b>	<b>1.5419</b>	<b>1.7788</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0633	2.0829	0.4616	5.7200e-003	0.1267	6.6500e-003	0.1333	0.0347	6.3600e-003	0.0411		619.9562	619.9562	0.0422		621.0112
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.1323</b>	<b>2.1320</b>	<b>1.1183</b>	<b>7.4900e-003</b>	<b>0.2943</b>	<b>8.0500e-003</b>	<b>0.3024</b>	<b>0.0792</b>	<b>7.6500e-003</b>	<b>0.0868</b>		<b>796.3732</b>	<b>796.3732</b>	<b>0.0478</b>		<b>797.5672</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4124	0.0000	0.4124	0.0624	0.0000	0.0624			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.4124</b>	<b>1.6587</b>	<b>2.0711</b>	<b>0.0624</b>	<b>1.5419</b>	<b>1.6043</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0633	2.0829	0.4616	5.7200e-003	0.1267	6.6500e-003	0.1333	0.0347	6.3600e-003	0.0411		619.9562	619.9562	0.0422		621.0112
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.1323</b>	<b>2.1320</b>	<b>1.1183</b>	<b>7.4900e-003</b>	<b>0.2943</b>	<b>8.0500e-003</b>	<b>0.3024</b>	<b>0.0792</b>	<b>7.6500e-003</b>	<b>0.0868</b>		<b>796.3732</b>	<b>796.3732</b>	<b>0.0478</b>		<b>797.5672</b>

**3.3 Site Preparation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					18.5965	0.0000	18.5965	9.9879	0.0000	9.9879			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931		4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>18.5965</b>	<b>2.4925</b>	<b>21.0890</b>	<b>9.9879</b>	<b>2.2931</b>	<b>12.2810</b>		<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
<b>Total</b>	<b>0.0828</b>	<b>0.0589</b>	<b>0.7881</b>	<b>2.1300e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>211.7003</b>	<b>211.7003</b>	<b>6.6700e-003</b>		<b>211.8672</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					4.9002	0.0000	4.9002	2.6318	0.0000	2.6318			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931	0.0000	4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>4.9002</b>	<b>2.4925</b>	<b>7.3927</b>	<b>2.6318</b>	<b>2.2931</b>	<b>4.9249</b>	<b>0.0000</b>	<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
<b>Total</b>	<b>0.0828</b>	<b>0.0589</b>	<b>0.7881</b>	<b>2.1300e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>211.7003</b>	<b>211.7003</b>	<b>6.6700e-003</b>		<b>211.8672</b>

**3.4 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5780	0.0000	6.5780	3.3719	0.0000	3.3719			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5780</b>	<b>1.2734</b>	<b>7.8515</b>	<b>3.3719</b>	<b>1.1716</b>	<b>4.5435</b>		<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.4 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3728	12.2731	2.7196	0.0337	0.7463	0.0392	0.7855	0.2046	0.0375	0.2420		3,652.9407	3,652.9407	0.2486		3,659.1567
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.4419</b>	<b>12.3222</b>	<b>3.3764</b>	<b>0.0355</b>	<b>0.9140</b>	<b>0.0406</b>	<b>0.9545</b>	<b>0.2490</b>	<b>0.0388</b>	<b>0.2878</b>		<b>3,829.3576</b>	<b>3,829.3576</b>	<b>0.2542</b>		<b>3,835.7127</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.7333	0.0000	1.7333	0.8885	0.0000	0.8885			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>1.7333</b>	<b>1.2734</b>	<b>3.0067</b>	<b>0.8885</b>	<b>1.1716</b>	<b>2.0601</b>	<b>0.0000</b>	<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.4 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3728	12.2731	2.7196	0.0337	0.7463	0.0392	0.7855	0.2046	0.0375	0.2420		3,652.9407	3,652.9407	0.2486		3,659.1567
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.4419</b>	<b>12.3222</b>	<b>3.3764</b>	<b>0.0355</b>	<b>0.9140</b>	<b>0.0406</b>	<b>0.9545</b>	<b>0.2490</b>	<b>0.0388</b>	<b>0.2878</b>		<b>3,829.3576</b>	<b>3,829.3576</b>	<b>0.2542</b>		<b>3,835.7127</b>

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4055	12.1265	3.1772	0.0296	0.7298	0.0571	0.7869	0.2101	0.0546	0.2647		3,158.0815	3,158.0815	0.1927		3,162.8994
Worker	2.2412	1.5944	21.3230	0.0575	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,727.6697	5,727.6697	0.1806		5,732.1842
<b>Total</b>	<b>2.6467</b>	<b>13.7209</b>	<b>24.5003</b>	<b>0.0871</b>	<b>6.1733</b>	<b>0.1026</b>	<b>6.2759</b>	<b>1.6538</b>	<b>0.0965</b>	<b>1.7503</b>		<b>8,885.7512</b>	<b>8,885.7512</b>	<b>0.3733</b>		<b>8,895.0836</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4055	12.1265	3.1772	0.0296	0.7298	0.0571	0.7869	0.2101	0.0546	0.2647		3,158.0815	3,158.0815	0.1927		3,162.8994
Worker	2.2412	1.5944	21.3230	0.0575	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,727.6697	5,727.6697	0.1806		5,732.1842
<b>Total</b>	<b>2.6467</b>	<b>13.7209</b>	<b>24.5003</b>	<b>0.0871</b>	<b>6.1733</b>	<b>0.1026</b>	<b>6.2759</b>	<b>1.6538</b>	<b>0.0965</b>	<b>1.7503</b>		<b>8,885.7512</b>	<b>8,885.7512</b>	<b>0.3733</b>		<b>8,895.0836</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3465	11.0682	2.8935	0.0293	0.7298	0.0226	0.7525	0.2101	0.0216	0.2318		3,133.639 2	3,133.639 2	0.1846		3,138.254 5
Worker	2.0876	1.4349	19.6151	0.0557	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,545.809 2	5,545.809 2	0.1634		5,549.894 4
<b>Total</b>	<b>2.4341</b>	<b>12.5031</b>	<b>22.5086</b>	<b>0.0850</b>	<b>6.1734</b>	<b>0.0666</b>	<b>6.2400</b>	<b>1.6538</b>	<b>0.0622</b>	<b>1.7159</b>		<b>8,679.448 4</b>	<b>8,679.448 4</b>	<b>0.3480</b>		<b>8,688.148 8</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.363 9</b>	<b>2,553.363 9</b>	<b>0.6160</b>		<b>2,568.764 3</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3465	11.0682	2.8935	0.0293	0.7298	0.0226	0.7525	0.2101	0.0216	0.2318		3,133.639 2	3,133.639 2	0.1846		3,138.254 5
Worker	2.0876	1.4349	19.6151	0.0557	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,545.809 2	5,545.809 2	0.1634		5,549.894 4
<b>Total</b>	<b>2.4341</b>	<b>12.5031</b>	<b>22.5086</b>	<b>0.0850</b>	<b>6.1734</b>	<b>0.0666</b>	<b>6.2400</b>	<b>1.6538</b>	<b>0.0622</b>	<b>1.7159</b>		<b>8,679.448 4</b>	<b>8,679.448 4</b>	<b>0.3480</b>		<b>8,688.148 8</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3252	10.5257	2.7377	0.0290	0.7299	0.0198	0.7497	0.2101	0.0189	0.2291		3,106.3391	3,106.3391	0.1783		3,110.7957
Worker	1.9554	1.2961	18.0971	0.0537	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,350.7290	5,350.7290	0.1477		5,354.4211
<b>Total</b>	<b>2.2806</b>	<b>11.8218</b>	<b>20.8348</b>	<b>0.0827</b>	<b>6.1734</b>	<b>0.0624</b>	<b>6.2358</b>	<b>1.6538</b>	<b>0.0582</b>	<b>1.7120</b>		<b>8,457.0681</b>	<b>8,457.0681</b>	<b>0.3259</b>		<b>8,465.2167</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3252	10.5257	2.7377	0.0290	0.7299	0.0198	0.7497	0.2101	0.0189	0.2291		3,106.3391	3,106.3391	0.1783		3,110.7957
Worker	1.9554	1.2961	18.0971	0.0537	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,350.7290	5,350.7290	0.1477		5,354.4211
<b>Total</b>	<b>2.2806</b>	<b>11.8218</b>	<b>20.8348</b>	<b>0.0827</b>	<b>6.1734</b>	<b>0.0624</b>	<b>6.2358</b>	<b>1.6538</b>	<b>0.0582</b>	<b>1.7120</b>		<b>8,457.0681</b>	<b>8,457.0681</b>	<b>0.3259</b>		<b>8,465.2167</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	85.7081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>85.9126</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3895	0.2582	3.6046	0.0107	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,065.7510	1,065.7510	0.0294		1,066.4863
<b>Total</b>	<b>0.3895</b>	<b>0.2582</b>	<b>3.6046</b>	<b>0.0107</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,065.7510</b>	<b>1,065.7510</b>	<b>0.0294</b>		<b>1,066.4863</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	85.7081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>85.9126</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3895	0.2582	3.6046	0.0107	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,065.7510	1,065.7510	0.0294		1,066.4863
<b>Total</b>	<b>0.3895</b>	<b>0.2582</b>	<b>3.6046</b>	<b>0.0107</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,065.7510</b>	<b>1,065.7510</b>	<b>0.0294</b>		<b>1,066.4863</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.67 10	14,015.67 10	0.4045		14,025.78 34
Unmitigated	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.67 10	14,015.67 10	0.4045		14,025.78 34

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,874.53	1,874.53	1,874.53	6,405,554	6,405,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>6,405,554</b>	<b>6,405,554</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Other Asphalt Surfaces	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking with Elevator	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
NaturalGas Unmitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16112.1	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16.1121	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Unmitigated	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day										lb/day						
Emergency Generator - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>

**11.0 Vegetation**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**Alexan Specific Plan (Project Emissions) CH**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.64	Acre	2.64	114,880.00	0
Unenclosed Parking with Elevator	786.00	Space	1.04	292,312.00	0
Apartments Mid Rise	439.00	Dwelling Unit	2.44	543,496.00	1256

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Project Characteristics - Adjusted Intensities

Land Use - Per Site Plan

Construction Phase - Per Construction Schedule

Off-road Equipment - Per Grading Plan

Demolition -

Grading - Per Grading Plan

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Per TIA

Woodstoves - Per Regulations

Area Coating - SCAQMD Rule 1113

Energy Use - 2020 Standards

Solid Waste - AB341 diversion rate of 75%

Sequestration -

Construction Off-road Equipment Mitigation - Rule 403 Thrice Daily Watering. Replace Ground Cover 15% Reduction.

Fleet Mix - No buses or motorhomes.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Parking	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblAreaCoating	Area_EF_Parking	100	10
tblAreaCoating	Area_EF_Residential_Exterior	50	10

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

tblAreaCoating	Area_EF_Residential_Interior	50	10
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	69
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	69
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	467.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	20.00
tblEnergyUse	T24E	252.63	118.74
tblFireplaces	NumberGas	373.15	1.00
tblFireplaces	NumberNoFireplace	43.90	438.00
tblFireplaces	NumberWood	21.95	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	20.50	20.00
tblGrading	AcresOfGrading	20.00	10.00
tblGrading	MaterialImported	0.00	14,000.00
tblLandUse	LandUseSquareFeet	114,998.40	114,880.00
tblLandUse	LandUseSquareFeet	314,400.00	292,312.00
tblLandUse	LandUseSquareFeet	439,000.00	543,496.00
tblLandUse	LotAcreage	7.07	1.04
tblLandUse	LotAcreage	11.55	2.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSequestration	NumberOfNewTrees	0.00	150.00
tblSolidWaste	SolidWasteGenerationRate	201.94	50.49
tblVehicleTrips	ST_TR	6.39	4.27
tblVehicleTrips	SU_TR	5.86	4.27
tblVehicleTrips	WD_TR	6.65	4.27
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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					
2020	4.8980	53.1613	41.3488	0.1140	18.7977	2.4942	21.2919	10.0413	2.2946	12.3359	0.0000	11,438.81 43	11,438.81 43	1.4958	0.0000	11,463.71 81
2021	4.3350	29.9352	39.0838	0.1119	6.1734	1.0252	7.1986	1.6538	0.9634	2.6172	0.0000	11,232.81 23	11,232.81 23	0.9640	0.0000	11,256.91 31
2022	17.4594	27.4374	37.1982	0.1097	6.1734	0.8714	7.0448	1.6538	0.8193	2.4731	0.0000	11,011.40 17	11,011.40 17	0.9379	0.0000	11,034.84 89
<b>Maximum</b>	<b>17.4594</b>	<b>53.1613</b>	<b>41.3488</b>	<b>0.1140</b>	<b>18.7977</b>	<b>2.4942</b>	<b>21.2919</b>	<b>10.0413</b>	<b>2.2946</b>	<b>12.3359</b>	<b>0.0000</b>	<b>11,438.81 43</b>	<b>11,438.81 43</b>	<b>1.4958</b>	<b>0.0000</b>	<b>11,463.71 81</b>

**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					
2020	4.8980	53.1613	41.3488	0.1140	6.1733	2.4942	7.5955	2.6852	2.2946	4.9798	0.0000	11,438.81 43	11,438.81 43	1.4958	0.0000	11,463.71 81
2021	4.3350	29.9352	39.0838	0.1119	6.1734	1.0252	7.1986	1.6538	0.9634	2.6172	0.0000	11,232.81 23	11,232.81 23	0.9640	0.0000	11,256.91 31
2022	17.4594	27.4374	37.1982	0.1097	6.1734	0.8714	7.0448	1.6538	0.8193	2.4731	0.0000	11,011.40 17	11,011.40 17	0.9379	0.0000	11,034.84 89
<b>Maximum</b>	<b>17.4594</b>	<b>53.1613</b>	<b>41.3488</b>	<b>0.1140</b>	<b>6.1734</b>	<b>2.4942</b>	<b>7.5955</b>	<b>2.6852</b>	<b>2.2946</b>	<b>4.9798</b>	<b>0.0000</b>	<b>11,438.81 43</b>	<b>11,438.81 43</b>	<b>1.4958</b>	<b>0.0000</b>	<b>11,463.71 81</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	40.53	0.00	38.54	55.11	0.00	42.21	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.6710	14,015.6710	0.4045		14,025.7834
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.2541</b>	<b>6.7811</b>	<b>77.7287</b>	<b>0.1516</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,997.7764</b>	<b>15,997.7764</b>	<b>0.5044</b>	<b>0.0351</b>	<b>16,020.8580</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.6710	14,015.6710	0.4045		14,025.7834
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.2541</b>	<b>6.7811</b>	<b>77.7287</b>	<b>0.1516</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,997.7764</b>	<b>15,997.7764</b>	<b>0.5044</b>	<b>0.0351</b>	<b>16,020.8580</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	2/26/2020	5	41	
2	Site Preparation	Site Preparation	2/27/2020	3/25/2020	5	20	
3	Grading	Grading	3/26/2020	5/21/2020	5	41	
4	Building Construction	Building Construction	5/22/2020	3/7/2022	5	467	
5	Paving	Paving	3/8/2022	5/3/2022	5	41	
6	Architectural Coating	Architectural Coating	5/4/2022	6/29/2022	5	41	

**Acres of Grading (Site Preparation Phase): 10**

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 3.68**

**Residential Indoor: 1,100,579; Residential Outdoor: 366,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,432 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

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	Crawler Tractors	2	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	297.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	487.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	97.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.5651	0.0000	1.5651	0.2370	0.0000	0.2370			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>1.5651</b>	<b>1.6587</b>	<b>3.2238</b>	<b>0.2370</b>	<b>1.5419</b>	<b>1.7788</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0633	2.0829	0.4616	5.7200e-003	0.1267	6.6500e-003	0.1333	0.0347	6.3600e-003	0.0411		619.9562	619.9562	0.0422		621.0112
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.1323</b>	<b>2.1320</b>	<b>1.1183</b>	<b>7.4900e-003</b>	<b>0.2943</b>	<b>8.0500e-003</b>	<b>0.3024</b>	<b>0.0792</b>	<b>7.6500e-003</b>	<b>0.0868</b>		<b>796.3732</b>	<b>796.3732</b>	<b>0.0478</b>		<b>797.5672</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4124	0.0000	0.4124	0.0624	0.0000	0.0624			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.4124</b>	<b>1.6587</b>	<b>2.0711</b>	<b>0.0624</b>	<b>1.5419</b>	<b>1.6043</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0633	2.0829	0.4616	5.7200e-003	0.1267	6.6500e-003	0.1333	0.0347	6.3600e-003	0.0411		619.9562	619.9562	0.0422		621.0112
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.1323</b>	<b>2.1320</b>	<b>1.1183</b>	<b>7.4900e-003</b>	<b>0.2943</b>	<b>8.0500e-003</b>	<b>0.3024</b>	<b>0.0792</b>	<b>7.6500e-003</b>	<b>0.0868</b>		<b>796.3732</b>	<b>796.3732</b>	<b>0.0478</b>		<b>797.5672</b>

**3.3 Site Preparation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					18.5965	0.0000	18.5965	9.9879	0.0000	9.9879			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931		4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>18.5965</b>	<b>2.4925</b>	<b>21.0890</b>	<b>9.9879</b>	<b>2.2931</b>	<b>12.2810</b>		<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
<b>Total</b>	<b>0.0828</b>	<b>0.0589</b>	<b>0.7881</b>	<b>2.1300e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>211.7003</b>	<b>211.7003</b>	<b>6.6700e-003</b>		<b>211.8672</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					4.9002	0.0000	4.9002	2.6318	0.0000	2.6318			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931	0.0000	4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>4.9002</b>	<b>2.4925</b>	<b>7.3927</b>	<b>2.6318</b>	<b>2.2931</b>	<b>4.9249</b>	<b>0.0000</b>	<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
<b>Total</b>	<b>0.0828</b>	<b>0.0589</b>	<b>0.7881</b>	<b>2.1300e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>211.7003</b>	<b>211.7003</b>	<b>6.6700e-003</b>		<b>211.8672</b>

**3.4 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5780	0.0000	6.5780	3.3719	0.0000	3.3719			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5780</b>	<b>1.2734</b>	<b>7.8515</b>	<b>3.3719</b>	<b>1.1716</b>	<b>4.5435</b>		<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.4 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3728	12.2731	2.7196	0.0337	0.7463	0.0392	0.7855	0.2046	0.0375	0.2420		3,652.9407	3,652.9407	0.2486		3,659.1567
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.4419</b>	<b>12.3222</b>	<b>3.3764</b>	<b>0.0355</b>	<b>0.9140</b>	<b>0.0406</b>	<b>0.9545</b>	<b>0.2490</b>	<b>0.0388</b>	<b>0.2878</b>		<b>3,829.3576</b>	<b>3,829.3576</b>	<b>0.2542</b>		<b>3,835.7127</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.7333	0.0000	1.7333	0.8885	0.0000	0.8885			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>1.7333</b>	<b>1.2734</b>	<b>3.0067</b>	<b>0.8885</b>	<b>1.1716</b>	<b>2.0601</b>	<b>0.0000</b>	<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.4 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3728	12.2731	2.7196	0.0337	0.7463	0.0392	0.7855	0.2046	0.0375	0.2420		3,652.9407	3,652.9407	0.2486		3,659.1567
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
<b>Total</b>	<b>0.4419</b>	<b>12.3222</b>	<b>3.3764</b>	<b>0.0355</b>	<b>0.9140</b>	<b>0.0406</b>	<b>0.9545</b>	<b>0.2490</b>	<b>0.0388</b>	<b>0.2878</b>		<b>3,829.3576</b>	<b>3,829.3576</b>	<b>0.2542</b>		<b>3,835.7127</b>

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4055	12.1265	3.1772	0.0296	0.7298	0.0571	0.7869	0.2101	0.0546	0.2647		3,158.0815	3,158.0815	0.1927		3,162.8994
Worker	2.2412	1.5944	21.3230	0.0575	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,727.6697	5,727.6697	0.1806		5,732.1842
<b>Total</b>	<b>2.6467</b>	<b>13.7209</b>	<b>24.5003</b>	<b>0.0871</b>	<b>6.1733</b>	<b>0.1026</b>	<b>6.2759</b>	<b>1.6538</b>	<b>0.0965</b>	<b>1.7503</b>		<b>8,885.7512</b>	<b>8,885.7512</b>	<b>0.3733</b>		<b>8,895.0836</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4055	12.1265	3.1772	0.0296	0.7298	0.0571	0.7869	0.2101	0.0546	0.2647		3,158.0815	3,158.0815	0.1927		3,162.8994
Worker	2.2412	1.5944	21.3230	0.0575	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,727.6697	5,727.6697	0.1806		5,732.1842
<b>Total</b>	<b>2.6467</b>	<b>13.7209</b>	<b>24.5003</b>	<b>0.0871</b>	<b>6.1733</b>	<b>0.1026</b>	<b>6.2759</b>	<b>1.6538</b>	<b>0.0965</b>	<b>1.7503</b>		<b>8,885.7512</b>	<b>8,885.7512</b>	<b>0.3733</b>		<b>8,895.0836</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3465	11.0682	2.8935	0.0293	0.7298	0.0226	0.7525	0.2101	0.0216	0.2318		3,133.639 2	3,133.639 2	0.1846		3,138.254 5
Worker	2.0876	1.4349	19.6151	0.0557	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,545.809 2	5,545.809 2	0.1634		5,549.894 4
<b>Total</b>	<b>2.4341</b>	<b>12.5031</b>	<b>22.5086</b>	<b>0.0850</b>	<b>6.1734</b>	<b>0.0666</b>	<b>6.2400</b>	<b>1.6538</b>	<b>0.0622</b>	<b>1.7159</b>		<b>8,679.448 4</b>	<b>8,679.448 4</b>	<b>0.3480</b>		<b>8,688.148 8</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.363 9</b>	<b>2,553.363 9</b>	<b>0.6160</b>		<b>2,568.764 3</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3465	11.0682	2.8935	0.0293	0.7298	0.0226	0.7525	0.2101	0.0216	0.2318		3,133.639 2	3,133.639 2	0.1846		3,138.254 5
Worker	2.0876	1.4349	19.6151	0.0557	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,545.809 2	5,545.809 2	0.1634		5,549.894 4
<b>Total</b>	<b>2.4341</b>	<b>12.5031</b>	<b>22.5086</b>	<b>0.0850</b>	<b>6.1734</b>	<b>0.0666</b>	<b>6.2400</b>	<b>1.6538</b>	<b>0.0622</b>	<b>1.7159</b>		<b>8,679.448 4</b>	<b>8,679.448 4</b>	<b>0.3480</b>		<b>8,688.148 8</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3252	10.5257	2.7377	0.0290	0.7299	0.0198	0.7497	0.2101	0.0189	0.2291		3,106.3391	3,106.3391	0.1783		3,110.7957
Worker	1.9554	1.2961	18.0971	0.0537	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,350.7290	5,350.7290	0.1477		5,354.4211
<b>Total</b>	<b>2.2806</b>	<b>11.8218</b>	<b>20.8348</b>	<b>0.0827</b>	<b>6.1734</b>	<b>0.0624</b>	<b>6.2358</b>	<b>1.6538</b>	<b>0.0582</b>	<b>1.7120</b>		<b>8,457.0681</b>	<b>8,457.0681</b>	<b>0.3259</b>		<b>8,465.2167</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3252	10.5257	2.7377	0.0290	0.7299	0.0198	0.7497	0.2101	0.0189	0.2291		3,106.3391	3,106.3391	0.1783		3,110.7957
Worker	1.9554	1.2961	18.0971	0.0537	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,350.7290	5,350.7290	0.1477		5,354.4211
<b>Total</b>	<b>2.2806</b>	<b>11.8218</b>	<b>20.8348</b>	<b>0.0827</b>	<b>6.1734</b>	<b>0.0624</b>	<b>6.2358</b>	<b>1.6538</b>	<b>0.0582</b>	<b>1.7120</b>		<b>8,457.0681</b>	<b>8,457.0681</b>	<b>0.3259</b>		<b>8,465.2167</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.8654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.0700</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3895	0.2582	3.6046	0.0107	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,065.7510	1,065.7510	0.0294		1,066.4863
<b>Total</b>	<b>0.3895</b>	<b>0.2582</b>	<b>3.6046</b>	<b>0.0107</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,065.7510</b>	<b>1,065.7510</b>	<b>0.0294</b>		<b>1,066.4863</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	16.8654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.0700</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3895	0.2582	3.6046	0.0107	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,065.7510	1,065.7510	0.0294		1,066.4863
<b>Total</b>	<b>0.3895</b>	<b>0.2582</b>	<b>3.6046</b>	<b>0.0107</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,065.7510</b>	<b>1,065.7510</b>	<b>0.0294</b>		<b>1,066.4863</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.67 10	14,015.67 10	0.4045		14,025.78 34
Unmitigated	2.8847	4.8614	40.7831	0.1401	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		14,015.67 10	14,015.67 10	0.4045		14,025.78 34

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,874.53	1,874.53	1,874.53	6,405,554	6,405,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>6,405,554</b>	<b>6,405,554</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Other Asphalt Surfaces	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking with Elevator	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
NaturalGas Unmitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16112.1	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16.1121	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Unmitigated	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**11.0 Vegetation**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**Alexan Specific Plan (Project Emissions) CH**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.64	Acre	2.64	114,880.00	0
Unenclosed Parking with Elevator	786.00	Space	1.04	292,312.00	0
Apartments Mid Rise	439.00	Dwelling Unit	2.44	543,496.00	1256

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Project Characteristics - Adjusted Intensities

Land Use - Per Site Plan

Construction Phase - Per Construction Schedule

Off-road Equipment - Per Grading Plan

Demolition -

Grading - Per Grading Plan

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Per TIA

Woodstoves - Per Regulations

Area Coating - SCAQMD Rule 1113

Energy Use - 2020 Standards

Solid Waste - AB341 diversion rate of 75%

Sequestration -

Construction Off-road Equipment Mitigation - Rule 403 Thrice Daily Watering. Replace Ground Cover 15% Reduction.

Fleet Mix - No buses or motorhomes.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblAreaCoating	Area_EF_Parking	100	10
tblAreaCoating	Area_EF_Residential_Exterior	50	10
tblAreaCoating	Area_EF_Residential_Interior	50	10
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	69
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	69
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	20.00

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	467.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblEnergyUse	T24E	252.63	118.74
tblFireplaces	NumberGas	373.15	1.00
tblFireplaces	NumberNoFireplace	43.90	438.00
tblFireplaces	NumberWood	21.95	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	20.50	20.00



## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

tblGrading	AcresOfGrading	20.00	10.00
tblGrading	MaterialImported	0.00	14,000.00
tblLandUse	LandUseSquareFeet	114,998.40	114,880.00
tblLandUse	LandUseSquareFeet	314,400.00	292,312.00
tblLandUse	LandUseSquareFeet	439,000.00	543,496.00
tblLandUse	LotAcreage	7.07	1.04
tblLandUse	LotAcreage	11.55	2.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSequestration	NumberOfNewTrees	0.00	150.00
tblSolidWaste	SolidWasteGenerationRate	201.94	50.49
tblVehicleTrips	ST_TR	6.39	4.27
tblVehicleTrips	SU_TR	5.86	4.27
tblVehicleTrips	WD_TR	6.65	4.27
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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					
2020	5.0324	53.1676	39.8819	0.1098	18.7977	2.4942	21.2919	10.0413	2.2946	12.3359	0.0000	11,017.9197	11,017.9197	1.4954	0.0000	11,042.8759
2021	4.5868	30.0658	37.7100	0.1079	6.1734	1.0260	7.1993	1.6538	0.9641	2.6179	0.0000	10,822.9657	10,822.9657	0.9664	0.0000	10,847.1264
2022	86.3471	27.5471	35.9111	0.1057	6.1734	0.8721	7.0454	1.6538	0.8199	2.4737	0.0000	10,613.3480	10,613.3480	0.9405	0.0000	10,636.8609
<b>Maximum</b>	<b>86.3471</b>	<b>53.1676</b>	<b>39.8819</b>	<b>0.1098</b>	<b>18.7977</b>	<b>2.4942</b>	<b>21.2919</b>	<b>10.0413</b>	<b>2.2946</b>	<b>12.3359</b>	<b>0.0000</b>	<b>11,017.9197</b>	<b>11,017.9197</b>	<b>1.4954</b>	<b>0.0000</b>	<b>11,042.8759</b>

**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					
2020	5.0324	53.1676	39.8819	0.1098	6.1733	2.4942	7.5955	2.6852	2.2946	4.9798	0.0000	11,017.9197	11,017.9197	1.4954	0.0000	11,042.8758
2021	4.5868	30.0658	37.7100	0.1079	6.1734	1.0260	7.1993	1.6538	0.9641	2.6179	0.0000	10,822.9657	10,822.9657	0.9664	0.0000	10,847.1264
2022	86.3471	27.5471	35.9111	0.1057	6.1734	0.8721	7.0454	1.6538	0.8199	2.4737	0.0000	10,613.3480	10,613.3480	0.9405	0.0000	10,636.8609
<b>Maximum</b>	<b>86.3471</b>	<b>53.1676</b>	<b>39.8819</b>	<b>0.1098</b>	<b>6.1734</b>	<b>2.4942</b>	<b>7.5955</b>	<b>2.6852</b>	<b>2.2946</b>	<b>4.9798</b>	<b>0.0000</b>	<b>11,017.9197</b>	<b>11,017.9197</b>	<b>1.4954</b>	<b>0.0000</b>	<b>11,042.8758</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	40.53	0.00	38.54	55.11	0.00	42.21	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.7230	13,284.7230	0.3916		13,294.5141
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.1466</b>	<b>7.1251</b>	<b>75.1392</b>	<b>0.1443</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,266.8284</b>	<b>15,266.8284</b>	<b>0.4915</b>	<b>0.0351</b>	<b>15,289.5887</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.7230	13,284.7230	0.3916		13,294.5141
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.1466</b>	<b>7.1251</b>	<b>75.1392</b>	<b>0.1443</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,266.8284</b>	<b>15,266.8284</b>	<b>0.4915</b>	<b>0.0351</b>	<b>15,289.5887</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	2/26/2020	5	41	
2	Site Preparation	Site Preparation	2/27/2020	3/25/2020	5	20	
3	Grading	Grading	3/26/2020	5/21/2020	5	41	
4	Building Construction	Building Construction	5/22/2020	3/7/2022	5	467	
5	Paving	Paving	3/8/2022	5/3/2022	5	41	
6	Architectural Coating	Architectural Coating	5/4/2022	6/29/2022	5	41	

**Acres of Grading (Site Preparation Phase): 10**

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 3.68**

**Residential Indoor: 1,100,579; Residential Outdoor: 366,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,432 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

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	Crawler Tractors	2	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	297.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	487.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	97.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.5651	0.0000	1.5651	0.2370	0.0000	0.2370			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>1.5651</b>	<b>1.6587</b>	<b>3.2238</b>	<b>0.2370</b>	<b>1.5419</b>	<b>1.7788</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0648	2.1099	0.4905	5.6200e-003	0.1267	6.7500e-003	0.1334	0.0347	6.4600e-003	0.0412		609.2803	609.2803	0.0437		610.3737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.1415</b>	<b>2.1643</b>	<b>1.0920</b>	<b>7.2900e-003</b>	<b>0.2943</b>	<b>8.1500e-003</b>	<b>0.3025</b>	<b>0.0792</b>	<b>7.7500e-003</b>	<b>0.0869</b>		<b>775.3934</b>	<b>775.3934</b>	<b>0.0490</b>		<b>776.6176</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4124	0.0000	0.4124	0.0624	0.0000	0.0624			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.4124</b>	<b>1.6587</b>	<b>2.0711</b>	<b>0.0624</b>	<b>1.5419</b>	<b>1.6043</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0648	2.1099	0.4905	5.6200e-003	0.1267	6.7500e-003	0.1334	0.0347	6.4600e-003	0.0412		609.2803	609.2803	0.0437		610.3737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.1415</b>	<b>2.1643</b>	<b>1.0920</b>	<b>7.2900e-003</b>	<b>0.2943</b>	<b>8.1500e-003</b>	<b>0.3025</b>	<b>0.0792</b>	<b>7.7500e-003</b>	<b>0.0869</b>		<b>775.3934</b>	<b>775.3934</b>	<b>0.0490</b>		<b>776.6176</b>

**3.3 Site Preparation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					18.5965	0.0000	18.5965	9.9879	0.0000	9.9879			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931		4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>18.5965</b>	<b>2.4925</b>	<b>21.0890</b>	<b>9.9879</b>	<b>2.2931</b>	<b>12.2810</b>		<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
<b>Total</b>	<b>0.0920</b>	<b>0.0652</b>	<b>0.7218</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>199.3357</b>	<b>199.3357</b>	<b>6.2800e-003</b>		<b>199.4927</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					4.9002	0.0000	4.9002	2.6318	0.0000	2.6318			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931	0.0000	4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>4.9002</b>	<b>2.4925</b>	<b>7.3927</b>	<b>2.6318</b>	<b>2.2931</b>	<b>4.9249</b>	<b>0.0000</b>	<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
<b>Total</b>	<b>0.0920</b>	<b>0.0652</b>	<b>0.7218</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>199.3357</b>	<b>199.3357</b>	<b>6.2800e-003</b>		<b>199.4927</b>

**3.4 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5780	0.0000	6.5780	3.3719	0.0000	3.3719			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5780</b>	<b>1.2734</b>	<b>7.8515</b>	<b>3.3719</b>	<b>1.1716</b>	<b>4.5435</b>		<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.4 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3819	12.4319	2.8903	0.0331	0.7463	0.0398	0.7861	0.2046	0.0381	0.2426		3,590.0357	3,590.0357	0.2577		3,596.4777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.4585</b>	<b>12.4863</b>	<b>3.4918</b>	<b>0.0348</b>	<b>0.9140</b>	<b>0.0412</b>	<b>0.9551</b>	<b>0.2490</b>	<b>0.0393</b>	<b>0.2884</b>		<b>3,756.1487</b>	<b>3,756.1487</b>	<b>0.2629</b>		<b>3,762.7217</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.7333	0.0000	1.7333	0.8885	0.0000	0.8885			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>1.7333</b>	<b>1.2734</b>	<b>3.0067</b>	<b>0.8885</b>	<b>1.1716</b>	<b>2.0601</b>	<b>0.0000</b>	<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.4 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3819	12.4319	2.8903	0.0331	0.7463	0.0398	0.7861	0.2046	0.0381	0.2426		3,590.0357	3,590.0357	0.2577		3,596.4777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.4585</b>	<b>12.4863</b>	<b>3.4918</b>	<b>0.0348</b>	<b>0.9140</b>	<b>0.0412</b>	<b>0.9551</b>	<b>0.2490</b>	<b>0.0393</b>	<b>0.2884</b>		<b>3,756.1487</b>	<b>3,756.1487</b>	<b>0.2629</b>		<b>3,762.7217</b>

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4239	12.1240	3.5042	0.0288	0.7298	0.0580	0.7878	0.2101	0.0555	0.2656		3,071.7193	3,071.7193	0.2054		3,076.8544
Worker	2.4887	1.7652	19.5292	0.0542	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,393.1373	5,393.1373	0.1700		5,397.3870
<b>Total</b>	<b>2.9126</b>	<b>13.8892</b>	<b>23.0334</b>	<b>0.0829</b>	<b>6.1733</b>	<b>0.1035</b>	<b>6.2768</b>	<b>1.6538</b>	<b>0.0974</b>	<b>1.7512</b>		<b>8,464.8566</b>	<b>8,464.8566</b>	<b>0.3754</b>		<b>8,474.2414</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4239	12.1240	3.5042	0.0288	0.7298	0.0580	0.7878	0.2101	0.0555	0.2656		3,071.7193	3,071.7193	0.2054		3,076.8544
Worker	2.4887	1.7652	19.5292	0.0542	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,393.1373	5,393.1373	0.1700		5,397.3870
<b>Total</b>	<b>2.9126</b>	<b>13.8892</b>	<b>23.0334</b>	<b>0.0829</b>	<b>6.1733</b>	<b>0.1035</b>	<b>6.2768</b>	<b>1.6538</b>	<b>0.0974</b>	<b>1.7512</b>		<b>8,464.8566</b>	<b>8,464.8566</b>	<b>0.3754</b>		<b>8,474.2414</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3638	11.0453	3.2008	0.0285	0.7298	0.0234	0.7532	0.2101	0.0223	0.2325		3,047.7390	3,047.7390	0.1968		3,052.6578
Worker	2.3221	1.5883	17.9341	0.0524	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,221.8628	5,221.8628	0.1537		5,225.7043
<b>Total</b>	<b>2.6859</b>	<b>12.6337</b>	<b>21.1348</b>	<b>0.0809</b>	<b>6.1734</b>	<b>0.0674</b>	<b>6.2407</b>	<b>1.6538</b>	<b>0.0629</b>	<b>1.7166</b>		<b>8,269.6018</b>	<b>8,269.6018</b>	<b>0.3504</b>		<b>8,278.3621</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3638	11.0453	3.2008	0.0285	0.7298	0.0234	0.7532	0.2101	0.0223	0.2325		3,047.7390	3,047.7390	0.1968		3,052.6578
Worker	2.3221	1.5883	17.9341	0.0524	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,221.8628	5,221.8628	0.1537		5,225.7043
<b>Total</b>	<b>2.6859</b>	<b>12.6337</b>	<b>21.1348</b>	<b>0.0809</b>	<b>6.1734</b>	<b>0.0674</b>	<b>6.2407</b>	<b>1.6538</b>	<b>0.0629</b>	<b>1.7166</b>		<b>8,269.6018</b>	<b>8,269.6018</b>	<b>0.3504</b>		<b>8,278.3621</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3415	10.4970	3.0298	0.0283	0.7299	0.0204	0.7503	0.2101	0.0195	0.2297		3,020.661 2	3,020.661 2	0.1898		3,025.407 2
Worker	2.1810	1.4344	16.5179	0.0506	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,038.353 2	5,038.353 2	0.1387		5,041.821 5
<b>Total</b>	<b>2.5225</b>	<b>11.9315</b>	<b>19.5477</b>	<b>0.0788</b>	<b>6.1734</b>	<b>0.0630</b>	<b>6.2364</b>	<b>1.6538</b>	<b>0.0588</b>	<b>1.7126</b>		<b>8,059.014 4</b>	<b>8,059.014 4</b>	<b>0.3286</b>		<b>8,067.228 7</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3415	10.4970	3.0298	0.0283	0.7299	0.0204	0.7503	0.2101	0.0195	0.2297		3,020.661 2	3,020.661 2	0.1898		3,025.407 2
Worker	2.1810	1.4344	16.5179	0.0506	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,038.353 2	5,038.353 2	0.1387		5,041.821 5
<b>Total</b>	<b>2.5225</b>	<b>11.9315</b>	<b>19.5477</b>	<b>0.0788</b>	<b>6.1734</b>	<b>0.0630</b>	<b>6.2364</b>	<b>1.6538</b>	<b>0.0588</b>	<b>1.7126</b>		<b>8,059.014 4</b>	<b>8,059.014 4</b>	<b>0.3286</b>		<b>8,067.228 7</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.660 3</b>	<b>2,207.660 3</b>	<b>0.7140</b>		<b>2,225.510 4</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	85.7081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>85.9126</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4344	0.2857	3.2900	0.0101	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,003.5324	1,003.5324	0.0276		1,004.2232
<b>Total</b>	<b>0.4344</b>	<b>0.2857</b>	<b>3.2900</b>	<b>0.0101</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,003.5324</b>	<b>1,003.5324</b>	<b>0.0276</b>		<b>1,004.2232</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	85.7081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>85.9126</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4344	0.2857	3.2900	0.0101	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,003.5324	1,003.5324	0.0276		1,004.2232
<b>Total</b>	<b>0.4344</b>	<b>0.2857</b>	<b>3.2900</b>	<b>0.0101</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,003.5324</b>	<b>1,003.5324</b>	<b>0.0276</b>		<b>1,004.2232</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.72 30	13,284.72 30	0.3916		13,294.51 41
Unmitigated	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.72 30	13,284.72 30	0.3916		13,294.51 41

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,874.53	1,874.53	1,874.53	6,405,554	6,405,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>6,405,554</b>	<b>6,405,554</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Other Asphalt Surfaces	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking with Elevator	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
NaturalGas Unmitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16112.1	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16.1121	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Unmitigated	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**11.0 Vegetation**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**Alexan Specific Plan (Project Emissions) CH**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.64	Acre	2.64	114,880.00	0
Unenclosed Parking with Elevator	786.00	Space	1.04	292,312.00	0
Apartments Mid Rise	439.00	Dwelling Unit	2.44	543,496.00	1256

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Project Characteristics - Adjusted Intensities

Land Use - Per Site Plan

Construction Phase - Per Construction Schedule

Off-road Equipment - Per Grading Plan

Demolition -

Grading - Per Grading Plan

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Per TIA

Woodstoves - Per Regulations

Area Coating - SCAQMD Rule 1113

Energy Use - 2020 Standards

Solid Waste - AB341 diversion rate of 75%

Sequestration -

Construction Off-road Equipment Mitigation - Rule 403 Thrice Daily Watering. Replace Ground Cover 15% Reduction.

Fleet Mix - No buses or motorhomes.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Parking	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblAreaCoating	Area_EF_Parking	100	10
tblAreaCoating	Area_EF_Residential_Exterior	50	10



## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

tblAreaCoating	Area_EF_Residential_Interior	50	10
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	69
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	69
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	467.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	20.00
tblEnergyUse	T24E	252.63	118.74
tblFireplaces	NumberGas	373.15	1.00
tblFireplaces	NumberNoFireplace	43.90	438.00
tblFireplaces	NumberWood	21.95	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	20.50	20.00
tblGrading	AcresOfGrading	20.00	10.00
tblGrading	MaterialImported	0.00	14,000.00
tblLandUse	LandUseSquareFeet	114,998.40	114,880.00
tblLandUse	LandUseSquareFeet	314,400.00	292,312.00
tblLandUse	LandUseSquareFeet	439,000.00	543,496.00
tblLandUse	LotAcreage	7.07	1.04
tblLandUse	LotAcreage	11.55	2.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSequestration	NumberOfNewTrees	0.00	150.00
tblSolidWaste	SolidWasteGenerationRate	201.94	50.49
tblVehicleTrips	ST_TR	6.39	4.27
tblVehicleTrips	SU_TR	5.86	4.27
tblVehicleTrips	WD_TR	6.65	4.27
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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					
2020	5.0324	53.1676	39.8819	0.1098	18.7977	2.4942	21.2919	10.0413	2.2946	12.3359	0.0000	11,017.9197	11,017.9197	1.4954	0.0000	11,042.8759
2021	4.5868	30.0658	37.7100	0.1079	6.1734	1.0260	7.1993	1.6538	0.9641	2.6179	0.0000	10,822.9657	10,822.9657	0.9664	0.0000	10,847.1264
2022	17.5044	27.5471	35.9111	0.1057	6.1734	0.8721	7.0454	1.6538	0.8199	2.4737	0.0000	10,613.3480	10,613.3480	0.9405	0.0000	10,636.8609
<b>Maximum</b>	<b>17.5044</b>	<b>53.1676</b>	<b>39.8819</b>	<b>0.1098</b>	<b>18.7977</b>	<b>2.4942</b>	<b>21.2919</b>	<b>10.0413</b>	<b>2.2946</b>	<b>12.3359</b>	<b>0.0000</b>	<b>11,017.9197</b>	<b>11,017.9197</b>	<b>1.4954</b>	<b>0.0000</b>	<b>11,042.8759</b>

**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					
2020	5.0324	53.1676	39.8819	0.1098	6.1733	2.4942	7.5955	2.6852	2.2946	4.9798	0.0000	11,017.9197	11,017.9197	1.4954	0.0000	11,042.8758
2021	4.5868	30.0658	37.7100	0.1079	6.1734	1.0260	7.1993	1.6538	0.9641	2.6179	0.0000	10,822.9657	10,822.9657	0.9664	0.0000	10,847.1264
2022	17.5044	27.5471	35.9111	0.1057	6.1734	0.8721	7.0454	1.6538	0.8199	2.4737	0.0000	10,613.3480	10,613.3480	0.9405	0.0000	10,636.8609
<b>Maximum</b>	<b>17.5044</b>	<b>53.1676</b>	<b>39.8819</b>	<b>0.1098</b>	<b>6.1734</b>	<b>2.4942</b>	<b>7.5955</b>	<b>2.6852</b>	<b>2.2946</b>	<b>4.9798</b>	<b>0.0000</b>	<b>11,017.9197</b>	<b>11,017.9197</b>	<b>1.4954</b>	<b>0.0000</b>	<b>11,042.8758</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	40.53	0.00	38.54	55.11	0.00	42.21	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.7230	13,284.7230	0.3916		13,294.5141
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.1466</b>	<b>7.1251</b>	<b>75.1392</b>	<b>0.1443</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,266.8284</b>	<b>15,266.8284</b>	<b>0.4915</b>	<b>0.0351</b>	<b>15,289.5887</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Energy	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Mobile	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.7230	13,284.7230	0.3916		13,294.5141
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>15.1466</b>	<b>7.1251</b>	<b>75.1392</b>	<b>0.1443</b>	<b>13.4790</b>	<b>0.4233</b>	<b>13.9023</b>	<b>3.5903</b>	<b>0.4157</b>	<b>4.0060</b>	<b>0.0000</b>	<b>15,266.8284</b>	<b>15,266.8284</b>	<b>0.4915</b>	<b>0.0351</b>	<b>15,289.5887</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	2/26/2020	5	41	
2	Site Preparation	Site Preparation	2/27/2020	3/25/2020	5	20	
3	Grading	Grading	3/26/2020	5/21/2020	5	41	
4	Building Construction	Building Construction	5/22/2020	3/7/2022	5	467	
5	Paving	Paving	3/8/2022	5/3/2022	5	41	
6	Architectural Coating	Architectural Coating	5/4/2022	6/29/2022	5	41	

**Acres of Grading (Site Preparation Phase): 10**

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 3.68**

**Residential Indoor: 1,100,579; Residential Outdoor: 366,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,432 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

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	Crawler Tractors	2	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	297.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	487.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	97.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.5651	0.0000	1.5651	0.2370	0.0000	0.2370			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>1.5651</b>	<b>1.6587</b>	<b>3.2238</b>	<b>0.2370</b>	<b>1.5419</b>	<b>1.7788</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0648	2.1099	0.4905	5.6200e-003	0.1267	6.7500e-003	0.1334	0.0347	6.4600e-003	0.0412		609.2803	609.2803	0.0437		610.3737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.1415</b>	<b>2.1643</b>	<b>1.0920</b>	<b>7.2900e-003</b>	<b>0.2943</b>	<b>8.1500e-003</b>	<b>0.3025</b>	<b>0.0792</b>	<b>7.7500e-003</b>	<b>0.0869</b>		<b>775.3934</b>	<b>775.3934</b>	<b>0.0490</b>		<b>776.6176</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4124	0.0000	0.4124	0.0624	0.0000	0.0624			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>	<b>0.4124</b>	<b>1.6587</b>	<b>2.0711</b>	<b>0.0624</b>	<b>1.5419</b>	<b>1.6043</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0648	2.1099	0.4905	5.6200e-003	0.1267	6.7500e-003	0.1334	0.0347	6.4600e-003	0.0412		609.2803	609.2803	0.0437		610.3737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.1415</b>	<b>2.1643</b>	<b>1.0920</b>	<b>7.2900e-003</b>	<b>0.2943</b>	<b>8.1500e-003</b>	<b>0.3025</b>	<b>0.0792</b>	<b>7.7500e-003</b>	<b>0.0869</b>		<b>775.3934</b>	<b>775.3934</b>	<b>0.0490</b>		<b>776.6176</b>

**3.3 Site Preparation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					18.5965	0.0000	18.5965	9.9879	0.0000	9.9879			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931		4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>18.5965</b>	<b>2.4925</b>	<b>21.0890</b>	<b>9.9879</b>	<b>2.2931</b>	<b>12.2810</b>		<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
<b>Total</b>	<b>0.0920</b>	<b>0.0652</b>	<b>0.7218</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>199.3357</b>	<b>199.3357</b>	<b>6.2800e-003</b>		<b>199.4927</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					4.9002	0.0000	4.9002	2.6318	0.0000	2.6318			0.0000			0.0000
Off-Road	4.8152	53.1024	21.9542	0.0475		2.4925	2.4925		2.2931	2.2931	0.0000	4,604.3414	4,604.3414	1.4891		4,641.5698
<b>Total</b>	<b>4.8152</b>	<b>53.1024</b>	<b>21.9542</b>	<b>0.0475</b>	<b>4.9002</b>	<b>2.4925</b>	<b>7.3927</b>	<b>2.6318</b>	<b>2.2931</b>	<b>4.9249</b>	<b>0.0000</b>	<b>4,604.3414</b>	<b>4,604.3414</b>	<b>1.4891</b>		<b>4,641.5698</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
<b>Total</b>	<b>0.0920</b>	<b>0.0652</b>	<b>0.7218</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.6800e-003</b>	<b>0.2029</b>	<b>0.0534</b>	<b>1.5500e-003</b>	<b>0.0549</b>		<b>199.3357</b>	<b>199.3357</b>	<b>6.2800e-003</b>		<b>199.4927</b>

**3.4 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5780	0.0000	6.5780	3.3719	0.0000	3.3719			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5780</b>	<b>1.2734</b>	<b>7.8515</b>	<b>3.3719</b>	<b>1.1716</b>	<b>4.5435</b>		<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.4 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3819	12.4319	2.8903	0.0331	0.7463	0.0398	0.7861	0.2046	0.0381	0.2426		3,590.0357	3,590.0357	0.2577		3,596.4777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.4585</b>	<b>12.4863</b>	<b>3.4918</b>	<b>0.0348</b>	<b>0.9140</b>	<b>0.0412</b>	<b>0.9551</b>	<b>0.2490</b>	<b>0.0393</b>	<b>0.2884</b>		<b>3,756.1487</b>	<b>3,756.1487</b>	<b>0.2629</b>		<b>3,762.7217</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.7333	0.0000	1.7333	0.8885	0.0000	0.8885			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>1.7333</b>	<b>1.2734</b>	<b>3.0067</b>	<b>0.8885</b>	<b>1.1716</b>	<b>2.0601</b>	<b>0.0000</b>	<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.4 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3819	12.4319	2.8903	0.0331	0.7463	0.0398	0.7861	0.2046	0.0381	0.2426		3,590.0357	3,590.0357	0.2577		3,596.4777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
<b>Total</b>	<b>0.4585</b>	<b>12.4863</b>	<b>3.4918</b>	<b>0.0348</b>	<b>0.9140</b>	<b>0.0412</b>	<b>0.9551</b>	<b>0.2490</b>	<b>0.0393</b>	<b>0.2884</b>		<b>3,756.1487</b>	<b>3,756.1487</b>	<b>0.2629</b>		<b>3,762.7217</b>

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4239	12.1240	3.5042	0.0288	0.7298	0.0580	0.7878	0.2101	0.0555	0.2656		3,071.7193	3,071.7193	0.2054		3,076.8544
Worker	2.4887	1.7652	19.5292	0.0542	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,393.1373	5,393.1373	0.1700		5,397.3870
<b>Total</b>	<b>2.9126</b>	<b>13.8892</b>	<b>23.0334</b>	<b>0.0829</b>	<b>6.1733</b>	<b>0.1035</b>	<b>6.2768</b>	<b>1.6538</b>	<b>0.0974</b>	<b>1.7512</b>		<b>8,464.8566</b>	<b>8,464.8566</b>	<b>0.3754</b>		<b>8,474.2414</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4239	12.1240	3.5042	0.0288	0.7298	0.0580	0.7878	0.2101	0.0555	0.2656		3,071.7193	3,071.7193	0.2054		3,076.8544
Worker	2.4887	1.7652	19.5292	0.0542	5.4435	0.0455	5.4890	1.4437	0.0419	1.4856		5,393.1373	5,393.1373	0.1700		5,397.3870
<b>Total</b>	<b>2.9126</b>	<b>13.8892</b>	<b>23.0334</b>	<b>0.0829</b>	<b>6.1733</b>	<b>0.1035</b>	<b>6.2768</b>	<b>1.6538</b>	<b>0.0974</b>	<b>1.7512</b>		<b>8,464.8566</b>	<b>8,464.8566</b>	<b>0.3754</b>		<b>8,474.2414</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3638	11.0453	3.2008	0.0285	0.7298	0.0234	0.7532	0.2101	0.0223	0.2325		3,047.7390	3,047.7390	0.1968		3,052.6578
Worker	2.3221	1.5883	17.9341	0.0524	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,221.8628	5,221.8628	0.1537		5,225.7043
<b>Total</b>	<b>2.6859</b>	<b>12.6337</b>	<b>21.1348</b>	<b>0.0809</b>	<b>6.1734</b>	<b>0.0674</b>	<b>6.2407</b>	<b>1.6538</b>	<b>0.0629</b>	<b>1.7166</b>		<b>8,269.6018</b>	<b>8,269.6018</b>	<b>0.3504</b>		<b>8,278.3621</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3638	11.0453	3.2008	0.0285	0.7298	0.0234	0.7532	0.2101	0.0223	0.2325		3,047.7390	3,047.7390	0.1968		3,052.6578
Worker	2.3221	1.5883	17.9341	0.0524	5.4435	0.0440	5.4875	1.4437	0.0405	1.4842		5,221.8628	5,221.8628	0.1537		5,225.7043
<b>Total</b>	<b>2.6859</b>	<b>12.6337</b>	<b>21.1348</b>	<b>0.0809</b>	<b>6.1734</b>	<b>0.0674</b>	<b>6.2407</b>	<b>1.6538</b>	<b>0.0629</b>	<b>1.7166</b>		<b>8,269.6018</b>	<b>8,269.6018</b>	<b>0.3504</b>		<b>8,278.3621</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3415	10.4970	3.0298	0.0283	0.7299	0.0204	0.7503	0.2101	0.0195	0.2297		3,020.661 2	3,020.661 2	0.1898		3,025.407 2
Worker	2.1810	1.4344	16.5179	0.0506	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,038.353 2	5,038.353 2	0.1387		5,041.821 5
<b>Total</b>	<b>2.5225</b>	<b>11.9315</b>	<b>19.5477</b>	<b>0.0788</b>	<b>6.1734</b>	<b>0.0630</b>	<b>6.2364</b>	<b>1.6538</b>	<b>0.0588</b>	<b>1.7126</b>		<b>8,059.014 4</b>	<b>8,059.014 4</b>	<b>0.3286</b>		<b>8,067.228 7</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3415	10.4970	3.0298	0.0283	0.7299	0.0204	0.7503	0.2101	0.0195	0.2297		3,020.661 2	3,020.661 2	0.1898		3,025.407 2
Worker	2.1810	1.4344	16.5179	0.0506	5.4435	0.0426	5.4861	1.4437	0.0393	1.4829		5,038.353 2	5,038.353 2	0.1387		5,041.821 5
<b>Total</b>	<b>2.5225</b>	<b>11.9315</b>	<b>19.5477</b>	<b>0.0788</b>	<b>6.1734</b>	<b>0.0630</b>	<b>6.2364</b>	<b>1.6538</b>	<b>0.0588</b>	<b>1.7126</b>		<b>8,059.014 4</b>	<b>8,059.014 4</b>	<b>0.3286</b>		<b>8,067.228 7</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.660 3</b>	<b>2,207.660 3</b>	<b>0.7140</b>		<b>2,225.510 4</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1687					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2715</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.8654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.0700</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4344	0.2857	3.2900	0.0101	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,003.5324	1,003.5324	0.0276		1,004.2232
<b>Total</b>	<b>0.4344</b>	<b>0.2857</b>	<b>3.2900</b>	<b>0.0101</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,003.5324</b>	<b>1,003.5324</b>	<b>0.0276</b>		<b>1,004.2232</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	16.8654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>17.0700</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4344	0.2857	3.2900	0.0101	1.0842	8.4900e-003	1.0927	0.2875	7.8200e-003	0.2954		1,003.5324	1,003.5324	0.0276		1,004.2232
<b>Total</b>	<b>0.4344</b>	<b>0.2857</b>	<b>3.2900</b>	<b>0.0101</b>	<b>1.0842</b>	<b>8.4900e-003</b>	<b>1.0927</b>	<b>0.2875</b>	<b>7.8200e-003</b>	<b>0.2954</b>		<b>1,003.5324</b>	<b>1,003.5324</b>	<b>0.0276</b>		<b>1,004.2232</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.72 30	13,284.72 30	0.3916		13,294.51 41
Unmitigated	2.7772	5.2053	38.1937	0.1328	13.4790	0.1011	13.5801	3.5903	0.0935	3.6838		13,284.72 30	13,284.72 30	0.3916		13,294.51 41

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,874.53	1,874.53	1,874.53	6,405,554	6,405,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>6,405,554</b>	<b>6,405,554</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Other Asphalt Surfaces	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking with Elevator	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
NaturalGas Unmitigated	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16112.1	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	16.1121	0.1738	1.4848	0.6319	9.4800e-003		0.1201	0.1201		0.1201	0.1201		1,895.5419	1,895.5419	0.0363	0.0348	1,906.8061
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.1738</b>	<b>1.4848</b>	<b>0.6319</b>	<b>9.4800e-003</b>		<b>0.1201</b>	<b>0.1201</b>		<b>0.1201</b>	<b>0.1201</b>		<b>1,895.5419</b>	<b>1,895.5419</b>	<b>0.0363</b>	<b>0.0348</b>	<b>1,906.8061</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685
Unmitigated	12.1957	0.4349	36.3137	2.0200e-003		0.2021	0.2021		0.2021	0.2021	0.0000	86.5635	86.5635	0.0636	3.9000e-004	88.2685

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	0.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.9055					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.9400e-003	0.0166	7.0600e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	21.1765	21.1765	4.1000e-004	3.9000e-004	21.3023
Landscaping	1.0988	0.4183	36.3066	1.9200e-003		0.2008	0.2008		0.2008	0.2008		65.3871	65.3871	0.0632		66.9662
<b>Total</b>	<b>12.1957</b>	<b>0.4349</b>	<b>36.3137</b>	<b>2.0300e-003</b>		<b>0.2021</b>	<b>0.2021</b>		<b>0.2021</b>	<b>0.2021</b>	<b>0.0000</b>	<b>86.5635</b>	<b>86.5635</b>	<b>0.0636</b>	<b>3.9000e-004</b>	<b>88.2685</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**11.0 Vegetation**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**Alexan Specific Plan (Project Emissions) CH**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.64	Acre	2.64	114,880.00	0
Unenclosed Parking with Elevator	786.00	Space	1.04	292,312.00	0
Apartments Mid Rise	439.00	Dwelling Unit	2.44	543,496.00	1256

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**



## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

Project Characteristics - Adjusted Intensities

Land Use - Per Site Plan

Construction Phase - Per Construction Schedule

Off-road Equipment - Per Grading Plan

Demolition -

Grading - Per Grading Plan

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Per TIA

Woodstoves - Per Regulations

Area Coating - SCAQMD Rule 1113

Energy Use - 2020 Standards

Solid Waste - AB341 diversion rate of 75%

Sequestration -

Construction Off-road Equipment Mitigation - Rule 403 Thrice Daily Watering. Replace Ground Cover 15% Reduction.

Fleet Mix - No buses or motorhomes.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Parking	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblAreaCoating	Area_EF_Parking	100	10
tblAreaCoating	Area_EF_Residential_Exterior	50	10

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

tblAreaCoating	Area_EF_Residential_Interior	50	10
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	69
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	69
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	467.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	20.00
tblEnergyUse	T24E	252.63	118.74
tblFireplaces	NumberGas	373.15	1.00
tblFireplaces	NumberNoFireplace	43.90	438.00
tblFireplaces	NumberWood	21.95	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblGrading	AcresOfGrading	20.50	20.00
tblGrading	AcresOfGrading	20.00	10.00
tblGrading	MaterialImported	0.00	14,000.00
tblLandUse	LandUseSquareFeet	114,998.40	114,880.00
tblLandUse	LandUseSquareFeet	314,400.00	292,312.00
tblLandUse	LandUseSquareFeet	439,000.00	543,496.00
tblLandUse	LotAcreage	7.07	1.04
tblLandUse	LotAcreage	11.55	2.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSequestration	NumberOfNewTrees	0.00	150.00
tblSolidWaste	SolidWasteGenerationRate	201.94	50.49
tblVehicleTrips	ST_TR	6.39	4.27
tblVehicleTrips	SU_TR	5.86	4.27
tblVehicleTrips	WD_TR	6.65	4.27
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**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					
2020	0.5611	4.7277	4.3134	0.0117	0.8636	0.1837	1.0472	0.3110	0.1713	0.4823	0.0000	1,061.6676	1,061.6676	0.1284	0.0000	1,064.8764
2021	0.5677	3.9560	4.9645	0.0143	0.7901	0.1338	0.9240	0.2120	0.1258	0.3378	0.0000	1,297.4910	1,297.4910	0.1139	0.0000	1,300.3389
2022	0.4773	0.9028	1.2491	3.2300e-003	0.1644	0.0336	0.1980	0.0441	0.0314	0.0755	0.0000	292.4335	292.4335	0.0338	0.0000	293.2775
<b>Maximum</b>	<b>0.5677</b>	<b>4.7277</b>	<b>4.9645</b>	<b>0.0143</b>	<b>0.8636</b>	<b>0.1837</b>	<b>1.0472</b>	<b>0.3110</b>	<b>0.1713</b>	<b>0.4823</b>	<b>0.0000</b>	<b>1,297.4910</b>	<b>1,297.4910</b>	<b>0.1284</b>	<b>0.0000</b>	<b>1,300.3389</b>

**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					
2020	0.5611	4.7277	4.3134	0.0117	0.6037	0.1837	0.7873	0.1829	0.1713	0.3542	0.0000	1,061.6672	1,061.6672	0.1284	0.0000	1,064.8760
2021	0.5677	3.9560	4.9645	0.0143	0.7901	0.1338	0.9240	0.2120	0.1258	0.3378	0.0000	1,297.4906	1,297.4906	0.1139	0.0000	1,300.3386
2022	0.4773	0.9028	1.2491	3.2300e-003	0.1644	0.0336	0.1980	0.0441	0.0314	0.0755	0.0000	292.4334	292.4334	0.0338	0.0000	293.2774
<b>Maximum</b>	<b>0.5677</b>	<b>4.7277</b>	<b>4.9645</b>	<b>0.0143</b>	<b>0.7901</b>	<b>0.1837</b>	<b>0.9240</b>	<b>0.2120</b>	<b>0.1713</b>	<b>0.3542</b>	<b>0.0000</b>	<b>1,297.4906</b>	<b>1,297.4906</b>	<b>0.1284</b>	<b>0.0000</b>	<b>1,300.3386</b>

## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	14.30	0.00	11.98	22.58	0.00	14.30	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	1-1-2020	3-31-2020	1.4605	1.4605
2	4-1-2020	6-30-2020	1.2955	1.2955
3	7-1-2020	9-30-2020	1.2378	1.2378
4	10-1-2020	12-31-2020	1.2521	1.2521
5	1-1-2021	3-31-2021	1.1138	1.1138
6	4-1-2021	6-30-2021	1.1138	1.1138
7	7-1-2021	9-30-2021	1.1260	1.1260
8	10-1-2021	12-31-2021	1.1386	1.1386
9	1-1-2022	3-31-2022	0.8562	0.8562
10	4-1-2022	6-30-2022	0.5366	0.5366
		Highest	1.4605	1.4605

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**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	2.1622	0.0525	4.5384	2.4000e-004		0.0251	0.0251		0.0251	0.0251	0.0000	7.6549	7.6549	7.1700e-003	0.0000	7.8354
Energy	0.0317	0.2710	0.1153	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	714.4783	714.4783	0.5451	1.9132	1,298.2438
Mobile	0.4938	0.9645	7.0869	0.0245	2.4053	0.0184	2.4237	0.6417	0.0170	0.6587	0.0000	2,223.2059	2,223.2059	0.0652	0.0000	2,224.8356
Stationary	7.4000e-004	2.4100e-003	2.6800e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3427	0.3427	5.0000e-005	0.0000	0.3439
Waste						0.0000	0.0000		0.0000	0.0000	10.2490	0.0000	10.2490	0.6057	0.0000	25.3915
Water						0.0000	0.0000		0.0000	0.0000	9.0743	100.4093	109.4836	1.0671	0.5001	285.1756
<b>Total</b>	<b>2.6884</b>	<b>1.2904</b>	<b>11.7433</b>	<b>0.0265</b>	<b>2.4053</b>	<b>0.0656</b>	<b>2.4709</b>	<b>0.6417</b>	<b>0.0642</b>	<b>0.7059</b>	<b>19.3233</b>	<b>3,046.0912</b>	<b>3,065.4145</b>	<b>2.2903</b>	<b>2.4133</b>	<b>3,841.8258</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**2.3 Vegetation**

Vegetation

	CO2e
Category	MT
New Trees	110.1000
<b>Total</b>	<b>110.1000</b>

**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	1/1/2020	2/26/2020	5	41	
2	Site Preparation	Site Preparation	2/27/2020	3/25/2020	5	20	
3	Grading	Grading	3/26/2020	5/21/2020	5	41	
4	Building Construction	Building Construction	5/22/2020	3/7/2022	5	467	
5	Paving	Paving	3/8/2022	5/3/2022	5	41	
6	Architectural Coating	Architectural Coating	5/4/2022	6/29/2022	5	41	

**Acres of Grading (Site Preparation Phase): 10**

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 3.68**



## Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**Residential Indoor: 1,100,579; Residential Outdoor: 366,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,432 (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	Crawler Tractors	2	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

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	297.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	487.00	114.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	97.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0321	0.0000	0.0321	4.8600e-003	0.0000	4.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0679	0.6806	0.4459	8.0000e-004		0.0340	0.0340		0.0316	0.0316	0.0000	69.6971	69.6971	0.0197	0.0000	70.1890
<b>Total</b>	<b>0.0679</b>	<b>0.6806</b>	<b>0.4459</b>	<b>8.0000e-004</b>	<b>0.0321</b>	<b>0.0340</b>	<b>0.0661</b>	<b>4.8600e-003</b>	<b>0.0316</b>	<b>0.0365</b>	<b>0.0000</b>	<b>69.6971</b>	<b>69.6971</b>	<b>0.0197</b>	<b>0.0000</b>	<b>70.1890</b>

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**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.3100e-003	0.0441	9.7200e-003	1.2000e-004	2.5500e-003	1.4000e-004	2.6900e-003	7.0000e-004	1.3000e-004	8.3000e-004	0.0000	11.4461	11.4461	8.0000e-004	0.0000	11.4661
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
<b>Total</b>	<b>2.7300e-003</b>	<b>0.0452</b>	<b>0.0224</b>	<b>1.5000e-004</b>	<b>5.9200e-003</b>	<b>1.7000e-004</b>	<b>6.0900e-003</b>	<b>1.5900e-003</b>	<b>1.6000e-004</b>	<b>1.7500e-003</b>	<b>0.0000</b>	<b>14.5868</b>	<b>14.5868</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>14.6092</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					8.4500e-003	0.0000	8.4500e-003	1.2800e-003	0.0000	1.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0679	0.6806	0.4459	8.0000e-004		0.0340	0.0340		0.0316	0.0316	0.0000	69.6971	69.6971	0.0197	0.0000	70.1889
<b>Total</b>	<b>0.0679</b>	<b>0.6806</b>	<b>0.4459</b>	<b>8.0000e-004</b>	<b>8.4500e-003</b>	<b>0.0340</b>	<b>0.0425</b>	<b>1.2800e-003</b>	<b>0.0316</b>	<b>0.0329</b>	<b>0.0000</b>	<b>69.6971</b>	<b>69.6971</b>	<b>0.0197</b>	<b>0.0000</b>	<b>70.1889</b>

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**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.3100e-003	0.0441	9.7200e-003	1.2000e-004	2.5500e-003	1.4000e-004	2.6900e-003	7.0000e-004	1.3000e-004	8.3000e-004	0.0000	11.4461	11.4461	8.0000e-004	0.0000	11.4661
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
<b>Total</b>	<b>2.7300e-003</b>	<b>0.0452</b>	<b>0.0224</b>	<b>1.5000e-004</b>	<b>5.9200e-003</b>	<b>1.7000e-004</b>	<b>6.0900e-003</b>	<b>1.5900e-003</b>	<b>1.6000e-004</b>	<b>1.7500e-003</b>	<b>0.0000</b>	<b>14.5868</b>	<b>14.5868</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>14.6092</b>

**3.3 Site Preparation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.1860	0.0000	0.1860	0.0999	0.0000	0.0999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.5310	0.2195	4.7000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	41.7699	41.7699	0.0135	0.0000	42.1076
<b>Total</b>	<b>0.0482</b>	<b>0.5310</b>	<b>0.2195</b>	<b>4.7000e-004</b>	<b>0.1860</b>	<b>0.0249</b>	<b>0.2109</b>	<b>0.0999</b>	<b>0.0229</b>	<b>0.1228</b>	<b>0.0000</b>	<b>41.7699</b>	<b>41.7699</b>	<b>0.0135</b>	<b>0.0000</b>	<b>42.1076</b>

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**3.3 Site Preparation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.3000e-004	6.7000e-004	7.4100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8384	1.8384	6.0000e-005	0.0000	1.8399
<b>Total</b>	<b>8.3000e-004</b>	<b>6.7000e-004</b>	<b>7.4100e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>2.0000e-005</b>	<b>1.9900e-003</b>	<b>5.2000e-004</b>	<b>2.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.8384</b>	<b>1.8384</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.8399</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0490	0.0000	0.0490	0.0263	0.0000	0.0263	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.5310	0.2195	4.7000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	41.7698	41.7698	0.0135	0.0000	42.1076
<b>Total</b>	<b>0.0482</b>	<b>0.5310</b>	<b>0.2195</b>	<b>4.7000e-004</b>	<b>0.0490</b>	<b>0.0249</b>	<b>0.0739</b>	<b>0.0263</b>	<b>0.0229</b>	<b>0.0493</b>	<b>0.0000</b>	<b>41.7698</b>	<b>41.7698</b>	<b>0.0135</b>	<b>0.0000</b>	<b>42.1076</b>

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**3.3 Site Preparation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	8.3000e-004	6.7000e-004	7.4100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8384	1.8384	6.0000e-005	0.0000	1.8399
<b>Total</b>	<b>8.3000e-004</b>	<b>6.7000e-004</b>	<b>7.4100e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>2.0000e-005</b>	<b>1.9900e-003</b>	<b>5.2000e-004</b>	<b>2.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.8384</b>	<b>1.8384</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.8399</b>

**3.4 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.1349	0.0000	0.1349	0.0691	0.0000	0.0691	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5409	0.3291	6.1000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	53.4204	53.4204	0.0173	0.0000	53.8524
<b>Total</b>	<b>0.0498</b>	<b>0.5409</b>	<b>0.3291</b>	<b>6.1000e-004</b>	<b>0.1349</b>	<b>0.0261</b>	<b>0.1610</b>	<b>0.0691</b>	<b>0.0240</b>	<b>0.0931</b>	<b>0.0000</b>	<b>53.4204</b>	<b>53.4204</b>	<b>0.0173</b>	<b>0.0000</b>	<b>53.8524</b>

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**3.4 Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7200e-003	0.2599	0.0573	6.9000e-004	0.0150	8.1000e-004	0.0159	4.1300e-003	7.7000e-004	4.9000e-003	0.0000	67.4434	67.4434	4.7000e-003	0.0000	67.5609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
<b>Total</b>	<b>9.1400e-003</b>	<b>0.2610</b>	<b>0.0699</b>	<b>7.2000e-004</b>	<b>0.0184</b>	<b>8.4000e-004</b>	<b>0.0193</b>	<b>5.0200e-003</b>	<b>8.0000e-004</b>	<b>5.8200e-003</b>	<b>0.0000</b>	<b>70.5841</b>	<b>70.5841</b>	<b>4.8000e-003</b>	<b>0.0000</b>	<b>70.7040</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0355	0.0000	0.0355	0.0182	0.0000	0.0182	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5409	0.3291	6.1000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	53.4204	53.4204	0.0173	0.0000	53.8523
<b>Total</b>	<b>0.0498</b>	<b>0.5409</b>	<b>0.3291</b>	<b>6.1000e-004</b>	<b>0.0355</b>	<b>0.0261</b>	<b>0.0616</b>	<b>0.0182</b>	<b>0.0240</b>	<b>0.0422</b>	<b>0.0000</b>	<b>53.4204</b>	<b>53.4204</b>	<b>0.0173</b>	<b>0.0000</b>	<b>53.8523</b>

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**3.4 Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7200e-003	0.2599	0.0573	6.9000e-004	0.0150	8.1000e-004	0.0159	4.1300e-003	7.7000e-004	4.9000e-003	0.0000	67.4434	67.4434	4.7000e-003	0.0000	67.5609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
<b>Total</b>	<b>9.1400e-003</b>	<b>0.2610</b>	<b>0.0699</b>	<b>7.2000e-004</b>	<b>0.0184</b>	<b>8.4000e-004</b>	<b>0.0193</b>	<b>5.0200e-003</b>	<b>8.0000e-004</b>	<b>5.8200e-003</b>	<b>0.0000</b>	<b>70.5841</b>	<b>70.5841</b>	<b>4.8000e-003</b>	<b>0.0000</b>	<b>70.7040</b>

**3.5 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1696	1.5349	1.3479	2.1500e-003		0.0894	0.0894		0.0840	0.0840	0.0000	185.2880	185.2880	0.0452	0.0000	186.4181
<b>Total</b>	<b>0.1696</b>	<b>1.5349</b>	<b>1.3479</b>	<b>2.1500e-003</b>		<b>0.0894</b>	<b>0.0894</b>		<b>0.0840</b>	<b>0.0840</b>	<b>0.0000</b>	<b>185.2880</b>	<b>185.2880</b>	<b>0.0452</b>	<b>0.0000</b>	<b>186.4181</b>



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**3.5 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0331	0.9883	0.2675	2.3400e-003	0.0575	4.6000e-003	0.0620	0.0166	4.4000e-003	0.0210	0.0000	226.5647	226.5647	0.0144	0.0000	226.9246
Worker	0.1799	0.1450	1.6037	4.4000e-003	0.4269	3.6400e-003	0.4306	0.1134	3.3500e-003	0.1168	0.0000	397.9182	397.9182	0.0125	0.0000	398.2317
<b>Total</b>	<b>0.2129</b>	<b>1.1333</b>	<b>1.8713</b>	<b>6.7400e-003</b>	<b>0.4844</b>	<b>8.2400e-003</b>	<b>0.4926</b>	<b>0.1300</b>	<b>7.7500e-003</b>	<b>0.1377</b>	<b>0.0000</b>	<b>624.4829</b>	<b>624.4829</b>	<b>0.0269</b>	<b>0.0000</b>	<b>625.1563</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1696	1.5349	1.3479	2.1500e-003		0.0894	0.0894		0.0840	0.0840	0.0000	185.2878	185.2878	0.0452	0.0000	186.4179
<b>Total</b>	<b>0.1696</b>	<b>1.5349</b>	<b>1.3479</b>	<b>2.1500e-003</b>		<b>0.0894</b>	<b>0.0894</b>		<b>0.0840</b>	<b>0.0840</b>	<b>0.0000</b>	<b>185.2878</b>	<b>185.2878</b>	<b>0.0452</b>	<b>0.0000</b>	<b>186.4179</b>

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**3.5 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0331	0.9883	0.2675	2.3400e-003	0.0575	4.6000e-003	0.0620	0.0166	4.4000e-003	0.0210	0.0000	226.5647	226.5647	0.0144	0.0000	226.9246
Worker	0.1799	0.1450	1.6037	4.4000e-003	0.4269	3.6400e-003	0.4306	0.1134	3.3500e-003	0.1168	0.0000	397.9182	397.9182	0.0125	0.0000	398.2317
<b>Total</b>	<b>0.2129</b>	<b>1.1333</b>	<b>1.8713</b>	<b>6.7400e-003</b>	<b>0.4844</b>	<b>8.2400e-003</b>	<b>0.4926</b>	<b>0.1300</b>	<b>7.7500e-003</b>	<b>0.1377</b>	<b>0.0000</b>	<b>624.4829</b>	<b>624.4829</b>	<b>0.0269</b>	<b>0.0000</b>	<b>625.1563</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
<b>Total</b>	<b>0.2481</b>	<b>2.2749</b>	<b>2.1631</b>	<b>3.5100e-003</b>		<b>0.1251</b>	<b>0.1251</b>		<b>0.1176</b>	<b>0.1176</b>	<b>0.0000</b>	<b>302.2867</b>	<b>302.2867</b>	<b>0.0729</b>	<b>0.0000</b>	<b>304.1099</b>

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**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0462	1.4682	0.3981	3.7800e-003	0.0937	2.9900e-003	0.0967	0.0271	2.8600e-003	0.0299	0.0000	366.7130	366.7130	0.0225	0.0000	367.2753
Worker	0.2735	0.2129	2.4033	6.9500e-003	0.6964	5.7400e-003	0.7022	0.1850	5.2900e-003	0.1903	0.0000	628.4914	628.4914	0.0185	0.0000	628.9538
<b>Total</b>	<b>0.3197</b>	<b>1.6811</b>	<b>2.8014</b>	<b>0.0107</b>	<b>0.7901</b>	<b>8.7300e-003</b>	<b>0.7989</b>	<b>0.2120</b>	<b>8.1500e-003</b>	<b>0.2202</b>	<b>0.0000</b>	<b>995.2044</b>	<b>995.2044</b>	<b>0.0410</b>	<b>0.0000</b>	<b>996.2291</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
<b>Total</b>	<b>0.2481</b>	<b>2.2749</b>	<b>2.1631</b>	<b>3.5100e-003</b>		<b>0.1251</b>	<b>0.1251</b>		<b>0.1176</b>	<b>0.1176</b>	<b>0.0000</b>	<b>302.2863</b>	<b>302.2863</b>	<b>0.0729</b>	<b>0.0000</b>	<b>304.1095</b>

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**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0462	1.4682	0.3981	3.7800e-003	0.0937	2.9900e-003	0.0967	0.0271	2.8600e-003	0.0299	0.0000	366.7130	366.7130	0.0225	0.0000	367.2753
Worker	0.2735	0.2129	2.4033	6.9500e-003	0.6964	5.7400e-003	0.7022	0.1850	5.2900e-003	0.1903	0.0000	628.4914	628.4914	0.0185	0.0000	628.9538
<b>Total</b>	<b>0.3197</b>	<b>1.6811</b>	<b>2.8014</b>	<b>0.0107</b>	<b>0.7901</b>	<b>8.7300e-003</b>	<b>0.7989</b>	<b>0.2120</b>	<b>8.1500e-003</b>	<b>0.2202</b>	<b>0.0000</b>	<b>995.2044</b>	<b>995.2044</b>	<b>0.0410</b>	<b>0.0000</b>	<b>996.2291</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0392	0.3592	0.3764	6.2000e-004		0.0186	0.0186		0.0175	0.0175	0.0000	53.2968	53.2968	0.0128	0.0000	53.6160
<b>Total</b>	<b>0.0392</b>	<b>0.3592</b>	<b>0.3764</b>	<b>6.2000e-004</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0175</b>	<b>0.0175</b>	<b>0.0000</b>	<b>53.2968</b>	<b>53.2968</b>	<b>0.0128</b>	<b>0.0000</b>	<b>53.6160</b>

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**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	7.6400e-003	0.2458	0.0664	6.6000e-004	0.0165	4.6000e-004	0.0170	4.7700e-003	4.4000e-004	5.2100e-003	0.0000	64.0637	64.0637	3.8300e-003	0.0000	64.1594
Worker	0.0452	0.0339	0.3903	1.1800e-003	0.1227	9.8000e-004	0.1237	0.0326	9.0000e-004	0.0335	0.0000	106.8749	106.8749	2.9400e-003	0.0000	106.9485
<b>Total</b>	<b>0.0528</b>	<b>0.2797</b>	<b>0.4567</b>	<b>1.8400e-003</b>	<b>0.1393</b>	<b>1.4400e-003</b>	<b>0.1407</b>	<b>0.0374</b>	<b>1.3400e-003</b>	<b>0.0387</b>	<b>0.0000</b>	<b>170.9386</b>	<b>170.9386</b>	<b>6.7700e-003</b>	<b>0.0000</b>	<b>171.1079</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0392	0.3592	0.3764	6.2000e-004		0.0186	0.0186		0.0175	0.0175	0.0000	53.2967	53.2967	0.0128	0.0000	53.6160
<b>Total</b>	<b>0.0392</b>	<b>0.3592</b>	<b>0.3764</b>	<b>6.2000e-004</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0175</b>	<b>0.0175</b>	<b>0.0000</b>	<b>53.2967</b>	<b>53.2967</b>	<b>0.0128</b>	<b>0.0000</b>	<b>53.6160</b>

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**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	7.6400e-003	0.2458	0.0664	6.6000e-004	0.0165	4.6000e-004	0.0170	4.7700e-003	4.4000e-004	5.2100e-003	0.0000	64.0637	64.0637	3.8300e-003	0.0000	64.1594
Worker	0.0452	0.0339	0.3903	1.1800e-003	0.1227	9.8000e-004	0.1237	0.0326	9.0000e-004	0.0335	0.0000	106.8749	106.8749	2.9400e-003	0.0000	106.9485
<b>Total</b>	<b>0.0528</b>	<b>0.2797</b>	<b>0.4567</b>	<b>1.8400e-003</b>	<b>0.1393</b>	<b>1.4400e-003</b>	<b>0.1407</b>	<b>0.0374</b>	<b>1.3400e-003</b>	<b>0.0387</b>	<b>0.0000</b>	<b>170.9386</b>	<b>170.9386</b>	<b>6.7700e-003</b>	<b>0.0000</b>	<b>171.1079</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0226	0.2281	0.2989	4.7000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	41.0565	41.0565	0.0133	0.0000	41.3885
Paving	3.4600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0261</b>	<b>0.2281</b>	<b>0.2989</b>	<b>4.7000e-004</b>		<b>0.0116</b>	<b>0.0116</b>		<b>0.0107</b>	<b>0.0107</b>	<b>0.0000</b>	<b>41.0565</b>	<b>41.0565</b>	<b>0.0133</b>	<b>0.0000</b>	<b>41.3885</b>

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**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	2.0000e-005	9.2000e-004	0.0000	2.9340	2.9340	8.0000e-005	0.0000	2.9361
<b>Total</b>	<b>1.2400e-003</b>	<b>9.3000e-004</b>	<b>0.0107</b>	<b>3.0000e-005</b>	<b>3.3700e-003</b>	<b>3.0000e-005</b>	<b>3.4000e-003</b>	<b>8.9000e-004</b>	<b>2.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>2.9340</b>	<b>2.9340</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.9361</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0226	0.2281	0.2989	4.7000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	41.0564	41.0564	0.0133	0.0000	41.3884
Paving	3.4600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0261</b>	<b>0.2281</b>	<b>0.2989</b>	<b>4.7000e-004</b>		<b>0.0116</b>	<b>0.0116</b>		<b>0.0107</b>	<b>0.0107</b>	<b>0.0000</b>	<b>41.0564</b>	<b>41.0564</b>	<b>0.0133</b>	<b>0.0000</b>	<b>41.3884</b>

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**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	2.0000e-005	9.2000e-004	0.0000	2.9340	2.9340	8.0000e-005	0.0000	2.9361
<b>Total</b>	<b>1.2400e-003</b>	<b>9.3000e-004</b>	<b>0.0107</b>	<b>3.0000e-005</b>	<b>3.3700e-003</b>	<b>3.0000e-005</b>	<b>3.4000e-003</b>	<b>8.9000e-004</b>	<b>2.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>2.9340</b>	<b>2.9340</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.9361</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3457					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
<b>Total</b>	<b>0.3499</b>	<b>0.0289</b>	<b>0.0372</b>	<b>6.0000e-005</b>		<b>1.6800e-003</b>	<b>1.6800e-003</b>		<b>1.6800e-003</b>	<b>1.6800e-003</b>	<b>0.0000</b>	<b>5.2342</b>	<b>5.2342</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>5.2427</b>



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**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0200e-003	6.0200e-003	0.0693	2.1000e-004	0.0218	1.7000e-004	0.0220	5.7900e-003	1.6000e-004	5.9500e-003	0.0000	18.9734	18.9734	5.2000e-004	0.0000	18.9864
<b>Total</b>	<b>8.0200e-003</b>	<b>6.0200e-003</b>	<b>0.0693</b>	<b>2.1000e-004</b>	<b>0.0218</b>	<b>1.7000e-004</b>	<b>0.0220</b>	<b>5.7900e-003</b>	<b>1.6000e-004</b>	<b>5.9500e-003</b>	<b>0.0000</b>	<b>18.9734</b>	<b>18.9734</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>18.9864</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3457					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
<b>Total</b>	<b>0.3499</b>	<b>0.0289</b>	<b>0.0372</b>	<b>6.0000e-005</b>		<b>1.6800e-003</b>	<b>1.6800e-003</b>		<b>1.6800e-003</b>	<b>1.6800e-003</b>	<b>0.0000</b>	<b>5.2342</b>	<b>5.2342</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>5.2427</b>

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**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0200e-003	6.0200e-003	0.0693	2.1000e-004	0.0218	1.7000e-004	0.0220	5.7900e-003	1.6000e-004	5.9500e-003	0.0000	18.9734	18.9734	5.2000e-004	0.0000	18.9864
<b>Total</b>	<b>8.0200e-003</b>	<b>6.0200e-003</b>	<b>0.0693</b>	<b>2.1000e-004</b>	<b>0.0218</b>	<b>1.7000e-004</b>	<b>0.0220</b>	<b>5.7900e-003</b>	<b>1.6000e-004</b>	<b>5.9500e-003</b>	<b>0.0000</b>	<b>18.9734</b>	<b>18.9734</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>18.9864</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4938	0.9645	7.0869	0.0245	2.4053	0.0184	2.4237	0.6417	0.0170	0.6587	0.0000	2,223.2059	2,223.2059	0.0652	0.0000	2,224.8356
Unmitigated	0.4938	0.9645	7.0869	0.0245	2.4053	0.0184	2.4237	0.6417	0.0170	0.6587	0.0000	2,223.2059	2,223.2059	0.0652	0.0000	2,224.8356

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,874.53	1,874.53	1,874.53	6,405,554	6,405,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
<b>Total</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>1,874.53</b>	<b>6,405,554</b>	<b>6,405,554</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Other Asphalt Surfaces	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking with Elevator	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	400.6501	400.6501	0.5391	1.9075	982.5507
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	400.6501	400.6501	0.5391	1.9075	982.5507
NaturalGas Mitigated	0.0317	0.2710	0.1153	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	313.8282	313.8282	6.0200e-003	5.7500e-003	315.6931
NaturalGas Unmitigated	0.0317	0.2710	0.1153	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	313.8282	313.8282	6.0200e-003	5.7500e-003	315.6931

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.88092e+006	0.0317	0.2710	0.1153	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	313.8282	313.8282	6.0200e-003	5.7500e-003	315.6931
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0317</b>	<b>0.2710</b>	<b>0.1153</b>	<b>1.7300e-003</b>		<b>0.0219</b>	<b>0.0219</b>		<b>0.0219</b>	<b>0.0219</b>	<b>0.0000</b>	<b>313.8282</b>	<b>313.8282</b>	<b>6.0200e-003</b>	<b>5.7500e-003</b>	<b>315.6931</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.88092e+006	0.0317	0.2710	0.1153	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	313.8282	313.8282	6.0200e-003	5.7500e-003	315.6931
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0317</b>	<b>0.2710</b>	<b>0.1153</b>	<b>1.7300e-003</b>		<b>0.0219</b>	<b>0.0219</b>		<b>0.0219</b>	<b>0.0219</b>	<b>0.0000</b>	<b>313.8282</b>	<b>313.8282</b>	<b>6.0200e-003</b>	<b>5.7500e-003</b>	<b>315.6931</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.71837e+006	301.2376	0.4053	1.4342	738.7523
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	567085	99.4125	0.1338	0.4733	243.7984
<b>Total</b>		<b>400.6501</b>	<b>0.5391</b>	<b>1.9075</b>	<b>982.5507</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.71837e+006	301.2376	0.4053	1.4342	738.7523
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	567085	99.4125	0.1338	0.4733	243.7984
<b>Total</b>		<b>400.6501</b>	<b>0.5391</b>	<b>1.9075</b>	<b>982.5507</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1622	0.0525	4.5384	2.4000e-004		0.0251	0.0251		0.0251	0.0251	0.0000	7.6549	7.6549	7.1700e-003	0.0000	7.8354
Unmitigated	2.1622	0.0525	4.5384	2.4000e-004		0.0251	0.0251		0.0251	0.0251	0.0000	7.6549	7.6549	7.1700e-003	0.0000	7.8354

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**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	0.0346					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0000e-005	2.1000e-004	9.0000e-005	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2401	0.2401	0.0000	0.0000	0.2416
Landscaping	0.1374	0.0523	4.5383	2.4000e-004		0.0251	0.0251		0.0251	0.0251	0.0000	7.4148	7.4148	7.1600e-003	0.0000	7.5938
<b>Total</b>	<b>2.1622</b>	<b>0.0525</b>	<b>4.5384</b>	<b>2.4000e-004</b>		<b>0.0251</b>	<b>0.0251</b>		<b>0.0251</b>	<b>0.0251</b>	<b>0.0000</b>	<b>7.6549</b>	<b>7.6549</b>	<b>7.1600e-003</b>	<b>0.0000</b>	<b>7.8354</b>



Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**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	0.0346					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0000e-005	2.1000e-004	9.0000e-005	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2401	0.2401	0.0000	0.0000	0.2416
Landscaping	0.1374	0.0523	4.5383	2.4000e-004		0.0251	0.0251		0.0251	0.0251	0.0000	7.4148	7.4148	7.1600e-003	0.0000	7.5938
<b>Total</b>	<b>2.1622</b>	<b>0.0525</b>	<b>4.5384</b>	<b>2.4000e-004</b>		<b>0.0251</b>	<b>0.0251</b>		<b>0.0251</b>	<b>0.0251</b>	<b>0.0000</b>	<b>7.6549</b>	<b>7.6549</b>	<b>7.1600e-003</b>	<b>0.0000</b>	<b>7.8354</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	109.4836	1.0671	0.5001	285.1756
Unmitigated	109.4836	1.0671	0.5001	285.1756

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.6026 / 18.0321	109.4836	1.0671	0.5001	285.1756
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>109.4836</b>	<b>1.0671</b>	<b>0.5001</b>	<b>285.1756</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.6026 / 18.0321	109.4836	1.0671	0.5001	285.1756
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>109.4836</b>	<b>1.0671</b>	<b>0.5001</b>	<b>285.1756</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.2490	0.6057	0.0000	25.3915
Unmitigated	10.2490	0.6057	0.0000	25.3915

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	50.49	10.2490	0.6057	0.0000	25.3915
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>10.2490</b>	<b>0.6057</b>	<b>0.0000</b>	<b>25.3915</b>

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	50.49	10.2490	0.6057	0.0000	25.3915
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>10.2490</b>	<b>0.6057</b>	<b>0.0000</b>	<b>25.3915</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (50 - 75 HP)	4.9000e-004	1.6100e-003	1.7900e-003	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2285	0.2285	3.0000e-005	0.0000	0.2293
Fire Pump - Diesel (50 - 75 HP)	2.5000e-004	8.0000e-004	8.9000e-004	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.1142	0.1142	2.0000e-005	0.0000	0.1146
<b>Total</b>	<b>7.4000e-004</b>	<b>2.4100e-003</b>	<b>2.6800e-003</b>	<b>0.0000</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.3427</b>	<b>0.3427</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.3439</b>

**11.0 Vegetation**

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Alexan Specific Plan (Project Emissions) CH - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	110.1000	0.0000	0.0000	110.1000

**11.2 Net New Trees**

**Species Class**

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	150	110.1000	0.0000	0.0000	110.1000
<b>Total</b>		<b>110.1000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>110.1000</b>





## Appendix A2

CalEEMod Project Emissions Estimates: GP/CZA

Summer, Winter, and Annual Output Files

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**Alexan GP/Z Amendment (Project Emissions) CH**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking Structure	0.39	Acre	0.39	16,988.40	0
Apartment Mid Rise	82.00	Dwelling Unit	2.16	82,000.00	235

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	386.48	<b>CH4 Intensity (lb/MWhr)</b>	0.52	<b>N2O Intensity (lb/MWhr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**



## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblEnergyUse	T24E	252.63	118.74
tblEnergyUse	T24NG	7,012.17	3,295.72
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	69.70	73.80
tblFireplaces	NumberWood	4.10	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSolidWaste	SolidWasteGenerationRate	37.72	9.43

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

**2.0 Emissions Summary**

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Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848
Energy	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Mobile	0.8391	1.4142	11.8638	0.0408	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		4,077.1529	4,077.1529	0.1177		4,080.0946
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.8676</b>	<b>2.9168</b>	<b>19.2367</b>	<b>0.0502</b>	<b>3.9211</b>	<b>0.1820</b>	<b>4.1031</b>	<b>1.0444</b>	<b>0.1798</b>	<b>1.2242</b>	<b>0.0000</b>	<b>5,907.9957</b>	<b>5,907.9957</b>	<b>0.1642</b>	<b>0.0333</b>	<b>5,922.0376</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848
Energy	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Mobile	0.8391	1.4142	11.8638	0.0408	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		4,077.1529	4,077.1529	0.1177		4,080.0946
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.8676</b>	<b>2.9168</b>	<b>19.2367</b>	<b>0.0502</b>	<b>3.9211</b>	<b>0.1820</b>	<b>4.1031</b>	<b>1.0444</b>	<b>0.1798</b>	<b>1.2242</b>	<b>0.0000</b>	<b>5,907.9957</b>	<b>5,907.9957</b>	<b>0.1642</b>	<b>0.0333</b>	<b>5,922.0376</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**



## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/14/2021	7/9/2021	5	20	
2	Site Preparation	Site Preparation	7/10/2021	7/14/2021	5	3	
3	Grading	Grading	7/15/2021	7/22/2021	5	6	
4	Building Construction	Building Construction	7/23/2021	5/26/2022	5	220	
5	Paving	Paving	5/27/2022	6/9/2022	5	10	
6	Architectural Coating	Architectural Coating	6/10/2022	6/23/2022	5	10	

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 3**

**Acres of Paving: 0.39**

**Residential Indoor: 166,050; Residential Outdoor: 55,350; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,019 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	77.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	66.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8361	0.0000	0.8361	0.1266	0.0000	0.1266			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
<b>Total</b>	<b>1.9930</b>	<b>19.6966</b>	<b>14.4925</b>	<b>0.0241</b>	<b>0.8361</b>	<b>1.0409</b>	<b>1.8770</b>	<b>0.1266</b>	<b>0.9715</b>	<b>1.0981</b>		<b>2,322.7171</b>	<b>2,322.7171</b>	<b>0.5940</b>		<b>2,337.5658</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0321	1.0327	0.2422	3.0000e-003	0.0673	3.1700e-003	0.0705	0.0185	3.0300e-003	0.0215		325.8818	325.8818	0.0221		326.4347
Vendor	0.0000	0.0000	0.0000	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	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
<b>Total</b>	<b>0.0878</b>	<b>1.0710</b>	<b>0.7658</b>	<b>4.4900e-003</b>	<b>0.2126</b>	<b>4.3400e-003</b>	<b>0.2170</b>	<b>0.0570</b>	<b>4.1100e-003</b>	<b>0.0611</b>		<b>473.9219</b>	<b>473.9219</b>	<b>0.0265</b>		<b>474.5838</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3763	0.0000	0.3763	0.0570	0.0000	0.0570			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
<b>Total</b>	<b>1.9930</b>	<b>19.6966</b>	<b>14.4925</b>	<b>0.0241</b>	<b>0.3763</b>	<b>1.0409</b>	<b>1.4172</b>	<b>0.0570</b>	<b>0.9715</b>	<b>1.0284</b>	<b>0.0000</b>	<b>2,322.7171</b>	<b>2,322.7171</b>	<b>0.5940</b>		<b>2,337.5658</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0321	1.0327	0.2422	3.0000e-003	0.0673	3.1700e-003	0.0705	0.0185	3.0300e-003	0.0215		325.8818	325.8818	0.0221		326.4347
Vendor	0.0000	0.0000	0.0000	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	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
<b>Total</b>	<b>0.0878</b>	<b>1.0710</b>	<b>0.7658</b>	<b>4.4900e-003</b>	<b>0.2126</b>	<b>4.3400e-003</b>	<b>0.2170</b>	<b>0.0570</b>	<b>4.1100e-003</b>	<b>0.0611</b>		<b>473.9219</b>	<b>473.9219</b>	<b>0.0265</b>		<b>474.5838</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
<b>Total</b>	<b>1.5463</b>	<b>18.2862</b>	<b>10.7496</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.7019</b>	<b>2.2926</b>	<b>0.1718</b>	<b>0.6457</b>	<b>0.8175</b>		<b>2,372.8832</b>	<b>2,372.8832</b>	<b>0.7674</b>		<b>2,392.0692</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
<b>Total</b>	<b>0.0343</b>	<b>0.0236</b>	<b>0.3222</b>	<b>9.1000e-004</b>	<b>0.0894</b>	<b>7.2000e-004</b>	<b>0.0901</b>	<b>0.0237</b>	<b>6.7000e-004</b>	<b>0.0244</b>		<b>91.1016</b>	<b>91.1016</b>	<b>2.6800e-003</b>		<b>91.1687</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
<b>Total</b>	<b>1.5463</b>	<b>18.2862</b>	<b>10.7496</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.7019</b>	<b>1.4177</b>	<b>0.0773</b>	<b>0.6457</b>	<b>0.7230</b>	<b>0.0000</b>	<b>2,372.8832</b>	<b>2,372.8832</b>	<b>0.7674</b>		<b>2,392.0692</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
<b>Total</b>	<b>0.0343</b>	<b>0.0236</b>	<b>0.3222</b>	<b>9.1000e-004</b>	<b>0.0894</b>	<b>7.2000e-004</b>	<b>0.0901</b>	<b>0.0237</b>	<b>6.7000e-004</b>	<b>0.0244</b>		<b>91.1016</b>	<b>91.1016</b>	<b>2.6800e-003</b>		<b>91.1687</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
<b>Total</b>	<b>1.8271</b>	<b>20.2135</b>	<b>9.7604</b>	<b>0.0206</b>	<b>6.5523</b>	<b>0.9158</b>	<b>7.4681</b>	<b>3.3675</b>	<b>0.8425</b>	<b>4.2100</b>		<b>1,995.6114</b>	<b>1,995.6114</b>	<b>0.6454</b>		<b>2,011.7470</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
<b>Total</b>	<b>0.0429</b>	<b>0.0295</b>	<b>0.4028</b>	<b>1.1400e-003</b>	<b>0.1118</b>	<b>9.0000e-004</b>	<b>0.1127</b>	<b>0.0296</b>	<b>8.3000e-004</b>	<b>0.0305</b>		<b>113.8770</b>	<b>113.8770</b>	<b>3.3600e-003</b>		<b>113.9609</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
<b>Total</b>	<b>1.8271</b>	<b>20.2135</b>	<b>9.7604</b>	<b>0.0206</b>	<b>2.9486</b>	<b>0.9158</b>	<b>3.8643</b>	<b>1.5154</b>	<b>0.8425</b>	<b>2.3579</b>	<b>0.0000</b>	<b>1,995.6114</b>	<b>1,995.6114</b>	<b>0.6454</b>		<b>2,011.7470</b>



Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
<b>Total</b>	<b>0.0429</b>	<b>0.0295</b>	<b>0.4028</b>	<b>1.1400e-003</b>	<b>0.1118</b>	<b>9.0000e-004</b>	<b>0.1127</b>	<b>0.0296</b>	<b>8.3000e-004</b>	<b>0.0305</b>		<b>113.8770</b>	<b>113.8770</b>	<b>3.3600e-003</b>		<b>113.9609</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
<b>Total</b>	<b>2.0451</b>	<b>16.0275</b>	<b>14.5629</b>	<b>0.0250</b>		<b>0.8173</b>	<b>0.8173</b>		<b>0.7831</b>	<b>0.7831</b>		<b>2,288.9355</b>	<b>2,288.9355</b>	<b>0.4503</b>		<b>2,300.1935</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.2829	0.1945	2.6583	7.5500e-003	0.7377	5.9600e-003	0.7437	0.1957	5.4900e-003	0.2011		751.5881	751.5881	0.0222		752.1417
<b>Total</b>	<b>0.3194</b>	<b>1.3595</b>	<b>2.9629</b>	<b>0.0106</b>	<b>0.8146</b>	<b>8.3400e-003</b>	<b>0.8229</b>	<b>0.2178</b>	<b>7.7700e-003</b>	<b>0.2255</b>		<b>1,081.4449</b>	<b>1,081.4449</b>	<b>0.0416</b>		<b>1,082.4843</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
<b>Total</b>	<b>2.0451</b>	<b>16.0275</b>	<b>14.5629</b>	<b>0.0250</b>		<b>0.8173</b>	<b>0.8173</b>		<b>0.7831</b>	<b>0.7831</b>	<b>0.0000</b>	<b>2,288.9355</b>	<b>2,288.9355</b>	<b>0.4503</b>		<b>2,300.1935</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.2829	0.1945	2.6583	7.5500e-003	0.7377	5.9600e-003	0.7437	0.1957	5.4900e-003	0.2011		751.5881	751.5881	0.0222		752.1417
<b>Total</b>	<b>0.3194</b>	<b>1.3595</b>	<b>2.9629</b>	<b>0.0106</b>	<b>0.8146</b>	<b>8.3400e-003</b>	<b>0.8229</b>	<b>0.2178</b>	<b>7.7700e-003</b>	<b>0.2255</b>		<b>1,081.4449</b>	<b>1,081.4449</b>	<b>0.0416</b>		<b>1,082.4843</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

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

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0342	1.1080	0.2882	3.0600e-003	0.0768	2.0800e-003	0.0789	0.0221	1.9900e-003	0.0241		326.9831	326.9831	0.0188		327.4522
Worker	0.2650	0.1757	2.4526	7.2800e-003	0.7377	5.7700e-003	0.7435	0.1957	5.3200e-003	0.2010		725.1501	725.1501	0.0200		725.6505
<b>Total</b>	<b>0.2992</b>	<b>1.2836</b>	<b>2.7408</b>	<b>0.0103</b>	<b>0.8146</b>	<b>7.8500e-003</b>	<b>0.8224</b>	<b>0.2178</b>	<b>7.3100e-003</b>	<b>0.2251</b>		<b>1,052.1332</b>	<b>1,052.1332</b>	<b>0.0388</b>		<b>1,053.1027</b>

**Mitigated Construction On-Site**

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

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0342	1.1080	0.2882	3.0600e-003	0.0768	2.0800e-003	0.0789	0.0221	1.9900e-003	0.0241		326.9831	326.9831	0.0188		327.4522
Worker	0.2650	0.1757	2.4526	7.2800e-003	0.7377	5.7700e-003	0.7435	0.1957	5.3200e-003	0.2010		725.1501	725.1501	0.0200		725.6505
<b>Total</b>	<b>0.2992</b>	<b>1.2836</b>	<b>2.7408</b>	<b>0.0103</b>	<b>0.8146</b>	<b>7.8500e-003</b>	<b>0.8224</b>	<b>0.2178</b>	<b>7.3100e-003</b>	<b>0.2251</b>		<b>1,052.1332</b>	<b>1,052.1332</b>	<b>0.0388</b>		<b>1,053.1027</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9412</b>	<b>9.3322</b>	<b>11.6970</b>	<b>0.0179</b>		<b>0.4879</b>	<b>0.4879</b>		<b>0.4500</b>	<b>0.4500</b>		<b>1,709.6892</b>	<b>1,709.6892</b>	<b>0.5419</b>		<b>1,723.2356</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9412</b>	<b>9.3322</b>	<b>11.6970</b>	<b>0.0179</b>		<b>0.4879</b>	<b>0.4879</b>		<b>0.4500</b>	<b>0.4500</b>	<b>0.0000</b>	<b>1,709.6892</b>	<b>1,709.6892</b>	<b>0.5419</b>		<b>1,723.2356</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.7818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>51.9863</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0522	0.0346	0.4831	1.4300e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		142.8326	142.8326	3.9400e-003		142.9312
<b>Total</b>	<b>0.0522</b>	<b>0.0346</b>	<b>0.4831</b>	<b>1.4300e-003</b>	<b>0.1453</b>	<b>1.1400e-003</b>	<b>0.1465</b>	<b>0.0385</b>	<b>1.0500e-003</b>	<b>0.0396</b>		<b>142.8326</b>	<b>142.8326</b>	<b>3.9400e-003</b>		<b>142.9312</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	51.7818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>51.9863</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>



Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0522	0.0346	0.4831	1.4300e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		142.8326	142.8326	3.9400e-003		142.9312
<b>Total</b>	<b>0.0522</b>	<b>0.0346</b>	<b>0.4831</b>	<b>1.4300e-003</b>	<b>0.1453</b>	<b>1.1400e-003</b>	<b>0.1465</b>	<b>0.0385</b>	<b>1.0500e-003</b>	<b>0.0396</b>		<b>142.8326</b>	<b>142.8326</b>	<b>3.9400e-003</b>		<b>142.9312</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8391	1.4142	11.8638	0.0408	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		4,077.1529	4,077.1529	0.1177		4,080.0946
Unmitigated	0.8391	1.4142	11.8638	0.0408	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		4,077.1529	4,077.1529	0.1177		4,080.0946

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	545.30	523.98	480.52	1,821,342	1,821,342
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	545.30	523.98	480.52	1,821,342	1,821,342

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking Structure	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
NaturalGas Unmitigated	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2174.62	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0235</b>	<b>0.2004</b>	<b>0.0853</b>	<b>1.2800e-003</b>		<b>0.0162</b>	<b>0.0162</b>		<b>0.0162</b>	<b>0.0162</b>		<b>255.8379</b>	<b>255.8379</b>	<b>4.9000e-003</b>	<b>4.6900e-003</b>	<b>257.3582</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.17462	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0235</b>	<b>0.2004</b>	<b>0.0853</b>	<b>1.2800e-003</b>		<b>0.0162</b>	<b>0.0162</b>		<b>0.0162</b>	<b>0.0162</b>		<b>255.8379</b>	<b>255.8379</b>	<b>4.9000e-003</b>	<b>4.6900e-003</b>	<b>257.3582</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848
Unmitigated	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848

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	0.0282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1433	1.2242	0.5209	7.8100e-003		0.0990	0.0990		0.0990	0.0990	0.0000	1,562.8235	1,562.8235	0.0300	0.0287	1,572.1106
Landscaping	0.2039	0.0780	6.7667	3.6000e-004		0.0375	0.0375		0.0375	0.0375		12.1814	12.1814	0.0117		12.4742
<b>Total</b>	<b>2.0050</b>	<b>1.3022</b>	<b>7.2876</b>	<b>8.1700e-003</b>		<b>0.1364</b>	<b>0.1364</b>		<b>0.1364</b>	<b>0.1364</b>	<b>0.0000</b>	<b>1,575.0049</b>	<b>1,575.0049</b>	<b>0.0417</b>	<b>0.0287</b>	<b>1,584.5848</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**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	0.0282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1433	1.2242	0.5209	7.8100e-003		0.0990	0.0990		0.0990	0.0990	0.0000	1,562.8235	1,562.8235	0.0300	0.0287	1,572.1106
Landscaping	0.2039	0.0780	6.7667	3.6000e-004		0.0375	0.0375		0.0375	0.0375		12.1814	12.1814	0.0117		12.4742
<b>Total</b>	<b>2.0050</b>	<b>1.3022</b>	<b>7.2876</b>	<b>8.1700e-003</b>		<b>0.1364</b>	<b>0.1364</b>		<b>0.1364</b>	<b>0.1364</b>	<b>0.0000</b>	<b>1,575.0049</b>	<b>1,575.0049</b>	<b>0.0417</b>	<b>0.0287</b>	<b>1,584.5848</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**11.0 Vegetation**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**Alexan GP/Z Amendment (Project Emissions) CH**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking Structure	0.39	Acre	0.39	16,988.40	0
Apartment Mid Rise	82.00	Dwelling Unit	2.16	82,000.00	235

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**





## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblEnergyUse	T24E	252.63	118.74
tblEnergyUse	T24NG	7,012.17	3,295.72
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	69.70	73.80
tblFireplaces	NumberWood	4.10	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblFleetMix	UBUS	2.1330e-003	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSolidWaste	SolidWasteGenerationRate	37.72	9.43

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848
Energy	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Mobile	0.8079	1.5142	11.1105	0.0386	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		3,864.5204	3,864.5204	0.1139		3,867.3686
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.8363</b>	<b>3.0169</b>	<b>18.4834</b>	<b>0.0481</b>	<b>3.9211</b>	<b>0.1820</b>	<b>4.1031</b>	<b>1.0444</b>	<b>0.1798</b>	<b>1.2243</b>	<b>0.0000</b>	<b>5,695.3632</b>	<b>5,695.3632</b>	<b>0.1605</b>	<b>0.0333</b>	<b>5,709.3117</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848
Energy	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Mobile	0.8079	1.5142	11.1105	0.0386	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		3,864.5204	3,864.5204	0.1139		3,867.3686
Stationary	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.8363</b>	<b>3.0169</b>	<b>18.4834</b>	<b>0.0481</b>	<b>3.9211</b>	<b>0.1820</b>	<b>4.1031</b>	<b>1.0444</b>	<b>0.1798</b>	<b>1.2243</b>	<b>0.0000</b>	<b>5,695.3632</b>	<b>5,695.3632</b>	<b>0.1605</b>	<b>0.0333</b>	<b>5,709.3117</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/14/2021	7/9/2021	5	20	
2	Site Preparation	Site Preparation	7/10/2021	7/14/2021	5	3	
3	Grading	Grading	7/15/2021	7/22/2021	5	6	
4	Building Construction	Building Construction	7/23/2021	5/26/2022	5	220	
5	Paving	Paving	5/27/2022	6/9/2022	5	10	
6	Architectural Coating	Architectural Coating	6/10/2022	6/23/2022	5	10	

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 3**

**Acres of Paving: 0.39**

**Residential Indoor: 166,050; Residential Outdoor: 55,350; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,019 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**



Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	77.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	66.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8361	0.0000	0.8361	0.1266	0.0000	0.1266			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
<b>Total</b>	<b>1.9930</b>	<b>19.6966</b>	<b>14.4925</b>	<b>0.0241</b>	<b>0.8361</b>	<b>1.0409</b>	<b>1.8770</b>	<b>0.1266</b>	<b>0.9715</b>	<b>1.0981</b>		<b>2,322.7171</b>	<b>2,322.7171</b>	<b>0.5940</b>		<b>2,337.5658</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0329	1.0454	0.2568	2.9500e-003	0.0673	3.2200e-003	0.0705	0.0185	3.0800e-003	0.0215		320.2365	320.2365	0.0229		320.8089
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
<b>Total</b>	<b>0.0949</b>	<b>1.0878</b>	<b>0.7355</b>	<b>4.3500e-003</b>	<b>0.2126</b>	<b>4.3900e-003</b>	<b>0.2170</b>	<b>0.0570</b>	<b>4.1600e-003</b>	<b>0.0612</b>		<b>459.6291</b>	<b>459.6291</b>	<b>0.0270</b>		<b>460.3041</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3763	0.0000	0.3763	0.0570	0.0000	0.0570			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
<b>Total</b>	<b>1.9930</b>	<b>19.6966</b>	<b>14.4925</b>	<b>0.0241</b>	<b>0.3763</b>	<b>1.0409</b>	<b>1.4172</b>	<b>0.0570</b>	<b>0.9715</b>	<b>1.0284</b>	<b>0.0000</b>	<b>2,322.7171</b>	<b>2,322.7171</b>	<b>0.5940</b>		<b>2,337.5658</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0329	1.0454	0.2568	2.9500e-003	0.0673	3.2200e-003	0.0705	0.0185	3.0800e-003	0.0215		320.2365	320.2365	0.0229		320.8089
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
<b>Total</b>	<b>0.0949</b>	<b>1.0878</b>	<b>0.7355</b>	<b>4.3500e-003</b>	<b>0.2126</b>	<b>4.3900e-003</b>	<b>0.2170</b>	<b>0.0570</b>	<b>4.1600e-003</b>	<b>0.0612</b>		<b>459.6291</b>	<b>459.6291</b>	<b>0.0270</b>		<b>460.3041</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
<b>Total</b>	<b>1.5463</b>	<b>18.2862</b>	<b>10.7496</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.7019</b>	<b>2.2926</b>	<b>0.1718</b>	<b>0.6457</b>	<b>0.8175</b>		<b>2,372.8832</b>	<b>2,372.8832</b>	<b>0.7674</b>		<b>2,392.0692</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
<b>Total</b>	<b>0.0382</b>	<b>0.0261</b>	<b>0.2946</b>	<b>8.6000e-004</b>	<b>0.0894</b>	<b>7.2000e-004</b>	<b>0.0901</b>	<b>0.0237</b>	<b>6.7000e-004</b>	<b>0.0244</b>		<b>85.7801</b>	<b>85.7801</b>	<b>2.5200e-003</b>		<b>85.8432</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
<b>Total</b>	<b>1.5463</b>	<b>18.2862</b>	<b>10.7496</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.7019</b>	<b>1.4177</b>	<b>0.0773</b>	<b>0.6457</b>	<b>0.7230</b>	<b>0.0000</b>	<b>2,372.8832</b>	<b>2,372.8832</b>	<b>0.7674</b>		<b>2,392.0692</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
<b>Total</b>	<b>0.0382</b>	<b>0.0261</b>	<b>0.2946</b>	<b>8.6000e-004</b>	<b>0.0894</b>	<b>7.2000e-004</b>	<b>0.0901</b>	<b>0.0237</b>	<b>6.7000e-004</b>	<b>0.0244</b>		<b>85.7801</b>	<b>85.7801</b>	<b>2.5200e-003</b>		<b>85.8432</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
<b>Total</b>	<b>1.8271</b>	<b>20.2135</b>	<b>9.7604</b>	<b>0.0206</b>	<b>6.5523</b>	<b>0.9158</b>	<b>7.4681</b>	<b>3.3675</b>	<b>0.8425</b>	<b>4.2100</b>		<b>1,995.6114</b>	<b>1,995.6114</b>	<b>0.6454</b>		<b>2,011.7470</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
<b>Total</b>	<b>0.0477</b>	<b>0.0326</b>	<b>0.3683</b>	<b>1.0800e-003</b>	<b>0.1118</b>	<b>9.0000e-004</b>	<b>0.1127</b>	<b>0.0296</b>	<b>8.3000e-004</b>	<b>0.0305</b>		<b>107.2251</b>	<b>107.2251</b>	<b>3.1600e-003</b>		<b>107.3040</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
<b>Total</b>	<b>1.8271</b>	<b>20.2135</b>	<b>9.7604</b>	<b>0.0206</b>	<b>2.9486</b>	<b>0.9158</b>	<b>3.8643</b>	<b>1.5154</b>	<b>0.8425</b>	<b>2.3579</b>	<b>0.0000</b>	<b>1,995.6114</b>	<b>1,995.6114</b>	<b>0.6454</b>		<b>2,011.7470</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
<b>Total</b>	<b>0.0477</b>	<b>0.0326</b>	<b>0.3683</b>	<b>1.0800e-003</b>	<b>0.1118</b>	<b>9.0000e-004</b>	<b>0.1127</b>	<b>0.0296</b>	<b>8.3000e-004</b>	<b>0.0305</b>		<b>107.2251</b>	<b>107.2251</b>	<b>3.1600e-003</b>		<b>107.3040</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
<b>Total</b>	<b>2.0451</b>	<b>16.0275</b>	<b>14.5629</b>	<b>0.0250</b>		<b>0.8173</b>	<b>0.8173</b>		<b>0.7831</b>	<b>0.7831</b>		<b>2,288.9355</b>	<b>2,288.9355</b>	<b>0.4503</b>		<b>2,300.1935</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.3147	0.2153	2.4305	7.1000e-003	0.7377	5.9600e-003	0.7437	0.1957	5.4900e-003	0.2011		707.6857	707.6857	0.0208		708.2063
<b>Total</b>	<b>0.3530</b>	<b>1.3779</b>	<b>2.7674</b>	<b>0.0101</b>	<b>0.8146</b>	<b>8.4200e-003</b>	<b>0.8230</b>	<b>0.2178</b>	<b>7.8400e-003</b>	<b>0.2256</b>		<b>1,028.5004</b>	<b>1,028.5004</b>	<b>0.0415</b>		<b>1,029.5387</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
<b>Total</b>	<b>2.0451</b>	<b>16.0275</b>	<b>14.5629</b>	<b>0.0250</b>		<b>0.8173</b>	<b>0.8173</b>		<b>0.7831</b>	<b>0.7831</b>	<b>0.0000</b>	<b>2,288.9355</b>	<b>2,288.9355</b>	<b>0.4503</b>		<b>2,300.1935</b>



Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.3147	0.2153	2.4305	7.1000e-003	0.7377	5.9600e-003	0.7437	0.1957	5.4900e-003	0.2011		707.6857	707.6857	0.0208		708.2063
<b>Total</b>	<b>0.3530</b>	<b>1.3779</b>	<b>2.7674</b>	<b>0.0101</b>	<b>0.8146</b>	<b>8.4200e-003</b>	<b>0.8230</b>	<b>0.2178</b>	<b>7.8400e-003</b>	<b>0.2256</b>		<b>1,028.5004</b>	<b>1,028.5004</b>	<b>0.0415</b>		<b>1,029.5387</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

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

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1050	0.3189	2.9700e-003	0.0768	2.1500e-003	0.0790	0.0221	2.0600e-003	0.0242		317.9643	317.9643	0.0200		318.4639
Worker	0.2956	0.1944	2.2386	6.8500e-003	0.7377	5.7700e-003	0.7435	0.1957	5.3200e-003	0.2010		682.8158	682.8158	0.0188		683.2859
<b>Total</b>	<b>0.3315</b>	<b>1.2994</b>	<b>2.5575</b>	<b>9.8200e-003</b>	<b>0.8146</b>	<b>7.9200e-003</b>	<b>0.8225</b>	<b>0.2178</b>	<b>7.3800e-003</b>	<b>0.2252</b>		<b>1,000.7802</b>	<b>1,000.7802</b>	<b>0.0388</b>		<b>1,001.7498</b>

**Mitigated Construction On-Site**

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

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1050	0.3189	2.9700e-003	0.0768	2.1500e-003	0.0790	0.0221	2.0600e-003	0.0242		317.9643	317.9643	0.0200		318.4639
Worker	0.2956	0.1944	2.2386	6.8500e-003	0.7377	5.7700e-003	0.7435	0.1957	5.3200e-003	0.2010		682.8158	682.8158	0.0188		683.2859
<b>Total</b>	<b>0.3315</b>	<b>1.2994</b>	<b>2.5575</b>	<b>9.8200e-003</b>	<b>0.8146</b>	<b>7.9200e-003</b>	<b>0.8225</b>	<b>0.2178</b>	<b>7.3800e-003</b>	<b>0.2252</b>		<b>1,000.7802</b>	<b>1,000.7802</b>	<b>0.0388</b>		<b>1,001.7498</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9412</b>	<b>9.3322</b>	<b>11.6970</b>	<b>0.0179</b>		<b>0.4879</b>	<b>0.4879</b>		<b>0.4500</b>	<b>0.4500</b>		<b>1,709.6892</b>	<b>1,709.6892</b>	<b>0.5419</b>		<b>1,723.2356</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9412</b>	<b>9.3322</b>	<b>11.6970</b>	<b>0.0179</b>		<b>0.4879</b>	<b>0.4879</b>		<b>0.4500</b>	<b>0.4500</b>	<b>0.0000</b>	<b>1,709.6892</b>	<b>1,709.6892</b>	<b>0.5419</b>		<b>1,723.2356</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.7818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>51.9863</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0582	0.0383	0.4409	1.3500e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		134.4940	134.4940	3.7000e-003		134.5866
<b>Total</b>	<b>0.0582</b>	<b>0.0383</b>	<b>0.4409</b>	<b>1.3500e-003</b>	<b>0.1453</b>	<b>1.1400e-003</b>	<b>0.1465</b>	<b>0.0385</b>	<b>1.0500e-003</b>	<b>0.0396</b>		<b>134.4940</b>	<b>134.4940</b>	<b>3.7000e-003</b>		<b>134.5866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	51.7818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>51.9863</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0582	0.0383	0.4409	1.3500e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		134.4940	134.4940	3.7000e-003		134.5866
<b>Total</b>	<b>0.0582</b>	<b>0.0383</b>	<b>0.4409</b>	<b>1.3500e-003</b>	<b>0.1453</b>	<b>1.1400e-003</b>	<b>0.1465</b>	<b>0.0385</b>	<b>1.0500e-003</b>	<b>0.0396</b>		<b>134.4940</b>	<b>134.4940</b>	<b>3.7000e-003</b>		<b>134.5866</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8079	1.5142	11.1105	0.0386	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		3,864.5204	3,864.5204	0.1139		3,867.3686
Unmitigated	0.8079	1.5142	11.1105	0.0386	3.9211	0.0294	3.9505	1.0444	0.0272	1.0716		3,864.5204	3,864.5204	0.1139		3,867.3686

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	545.30	523.98	480.52	1,821,342	1,821,342
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	545.30	523.98	480.52	1,821,342	1,821,342

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking Structure	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000



Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
NaturalGas Unmitigated	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2174.62	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0235</b>	<b>0.2004</b>	<b>0.0853</b>	<b>1.2800e-003</b>		<b>0.0162</b>	<b>0.0162</b>		<b>0.0162</b>	<b>0.0162</b>		<b>255.8379</b>	<b>255.8379</b>	<b>4.9000e-003</b>	<b>4.6900e-003</b>	<b>257.3582</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.17462	0.0235	0.2004	0.0853	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.8379	255.8379	4.9000e-003	4.6900e-003	257.3582
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0235</b>	<b>0.2004</b>	<b>0.0853</b>	<b>1.2800e-003</b>		<b>0.0162</b>	<b>0.0162</b>		<b>0.0162</b>	<b>0.0162</b>		<b>255.8379</b>	<b>255.8379</b>	<b>4.9000e-003</b>	<b>4.6900e-003</b>	<b>257.3582</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848
Unmitigated	2.0050	1.3022	7.2876	8.1700e-003		0.1364	0.1364		0.1364	0.1364	0.0000	1,575.0049	1,575.0049	0.0417	0.0287	1,584.5848

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	0.0282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1433	1.2242	0.5209	7.8100e-003		0.0990	0.0990		0.0990	0.0990	0.0000	1,562.8235	1,562.8235	0.0300	0.0287	1,572.1106
Landscaping	0.2039	0.0780	6.7667	3.6000e-004		0.0375	0.0375		0.0375	0.0375		12.1814	12.1814	0.0117		12.4742
<b>Total</b>	<b>2.0050</b>	<b>1.3022</b>	<b>7.2876</b>	<b>8.1700e-003</b>		<b>0.1364</b>	<b>0.1364</b>		<b>0.1364</b>	<b>0.1364</b>	<b>0.0000</b>	<b>1,575.0049</b>	<b>1,575.0049</b>	<b>0.0417</b>	<b>0.0287</b>	<b>1,584.5848</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**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	0.0282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1433	1.2242	0.5209	7.8100e-003		0.0990	0.0990		0.0990	0.0990	0.0000	1,562.8235	1,562.8235	0.0300	0.0287	1,572.1106
Landscaping	0.2039	0.0780	6.7667	3.6000e-004		0.0375	0.0375		0.0375	0.0375		12.1814	12.1814	0.0117		12.4742
<b>Total</b>	<b>2.0050</b>	<b>1.3022</b>	<b>7.2876</b>	<b>8.1700e-003</b>		<b>0.1364</b>	<b>0.1364</b>		<b>0.1364</b>	<b>0.1364</b>	<b>0.0000</b>	<b>1,575.0049</b>	<b>1,575.0049</b>	<b>0.0417</b>	<b>0.0287</b>	<b>1,584.5848</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

**Boilers**

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

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**11.0 Vegetation**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

**Alexan GP/Z Amendment (Project Emissions) CH**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	82.00	Dwelling Unit	2.16	82,000.00	235
Unenclosed Parking Structure	0.39	Acre	0.39	16,988.40	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	386.48	<b>CH4 Intensity (lb/MW hr)</b>	0.52	<b>N2O Intensity (lb/MW hr)</b>	1.84

**1.3 User Entered Comments & Non-Default Data**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

Project Characteristics - Adjusted Intensities

Land Use -

Demolition -

Fleet Mix - No Buses or Mobile Homes

Woodstoves - No woodstoves.

Architectural Coating - Low VOC Coatings

Area Coating - Low VOC Coatings

Energy Use - Adjusted for 2019 Standards

Solid Waste - 75% Waste Diversion Rate per AB431

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Off-road Equipment Mitigation - Once Daily Watering per Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Parking	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	10
tblAreaCoating	Area_EF_Nonresidential_Interior	100	10
tblAreaCoating	Area_EF_Parking	100	10
tblAreaCoating	Area_EF_Residential_Exterior	50	10
tblAreaCoating	Area_EF_Residential_Interior	50	10
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblEnergyUse	T24E	252.63	118.74
tblEnergyUse	T24NG	7,012.17	3,295.72
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	69.70	73.80
tblFireplaces	NumberWood	4.10	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	0.58
tblFleetMix	LDA	0.55	0.58
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	MH	8.6200e-004	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	OBUS	2.5460e-003	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	2.1330e-003	0.00



## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

tblFleetMix	UBUS	2.1330e-003	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.52
tblProjectCharacteristics	CO2IntensityFactor	702.44	386.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	1.84
tblSolidWaste	SolidWasteGenerationRate	37.72	9.43
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	6.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-14-2021	9-13-2021	0.6847	0.6847
2	9-14-2021	12-13-2021	0.6433	0.6433
3	12-14-2021	3-13-2022	0.5925	0.5925
4	3-14-2022	6-13-2022	0.5462	0.5462
5	6-14-2022	9-13-2022	0.0429	0.0429
		Highest	0.6847	0.6847

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	0.3280	9.7500e-003	0.8458	4.0000e-005		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	1.3813	1.3813	1.3300e-003	0.0000	1.4146
Energy	4.2800e-003	0.0366	0.0156	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	103.8362	103.8362	0.0835	0.2935	193.3800
Mobile	0.1404	0.2743	2.0151	6.9600e-003	0.6839	5.2300e-003	0.6892	0.1825	4.8300e-003	0.1873	0.0000	632.1418	632.1418	0.0185	0.0000	632.6052
Stationary	7.4000e-004	2.4100e-003	2.6800e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3427	0.3427	5.0000e-005	0.0000	0.3439
Waste						0.0000	0.0000		0.0000	0.0000	1.9142	0.0000	1.9142	0.1131	0.0000	4.7424
Water						0.0000	0.0000		0.0000	0.0000	1.6950	18.7553	20.4502	0.1993	0.0934	53.2674
<b>Total</b>	<b>0.4735</b>	<b>0.3230</b>	<b>2.8791</b>	<b>7.2300e-003</b>	<b>0.6839</b>	<b>0.0130</b>	<b>0.6969</b>	<b>0.1825</b>	<b>0.0126</b>	<b>0.1951</b>	<b>3.6092</b>	<b>756.4573</b>	<b>760.0665</b>	<b>0.4159</b>	<b>0.3869</b>	<b>885.7534</b>

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**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	0.3280	9.7500e-003	0.8458	4.0000e-005		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	1.3813	1.3813	1.3300e-003	0.0000	1.4146
Energy	4.2800e-003	0.0366	0.0156	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	103.8362	103.8362	0.0835	0.2935	193.3800
Mobile	0.1404	0.2743	2.0151	6.9600e-003	0.6839	5.2300e-003	0.6892	0.1825	4.8300e-003	0.1873	0.0000	632.1418	632.1418	0.0185	0.0000	632.6052
Stationary	7.4000e-004	2.4100e-003	2.6800e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3427	0.3427	5.0000e-005	0.0000	0.3439
Waste						0.0000	0.0000		0.0000	0.0000	1.9142	0.0000	1.9142	0.1131	0.0000	4.7424
Water						0.0000	0.0000		0.0000	0.0000	1.6950	18.7553	20.4502	0.1993	0.0934	53.2674
<b>Total</b>	<b>0.4735</b>	<b>0.3230</b>	<b>2.8791</b>	<b>7.2300e-003</b>	<b>0.6839</b>	<b>0.0130</b>	<b>0.6969</b>	<b>0.1825</b>	<b>0.0126</b>	<b>0.1951</b>	<b>3.6092</b>	<b>756.4573</b>	<b>760.0665</b>	<b>0.4159</b>	<b>0.3869</b>	<b>885.7534</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/14/2021	7/9/2021	5	20	
2	Site Preparation	Site Preparation	7/10/2021	7/14/2021	5	3	
3	Grading	Grading	7/15/2021	7/22/2021	5	6	
4	Building Construction	Building Construction	7/23/2021	5/26/2022	5	220	
5	Paving	Paving	5/27/2022	6/9/2022	5	10	
6	Architectural Coating	Architectural Coating	6/10/2022	6/23/2022	5	10	

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 3**

**Acres of Paving: 0.39**

**Residential Indoor: 166,050; Residential Outdoor: 55,350; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,019 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	77.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	66.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.3600e-003	0.0000	8.3600e-003	1.2700e-003	0.0000	1.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
<b>Total</b>	<b>0.0199</b>	<b>0.1970</b>	<b>0.1449</b>	<b>2.4000e-004</b>	<b>8.3600e-003</b>	<b>0.0104</b>	<b>0.0188</b>	<b>1.2700e-003</b>	<b>9.7100e-003</b>	<b>0.0110</b>	<b>0.0000</b>	<b>21.0713</b>	<b>21.0713</b>	<b>5.3900e-003</b>	<b>0.0000</b>	<b>21.2060</b>

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**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0107	2.4900e-003	3.0000e-005	6.6000e-004	3.0000e-005	6.9000e-004	1.8000e-004	3.0000e-005	2.1000e-004	0.0000	2.9348	2.9348	2.0000e-004	0.0000	2.9399
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.4000e-004	4.9200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2856	1.2856	4.0000e-005	0.0000	1.2865
<b>Total</b>	<b>8.8000e-004</b>	<b>0.0111</b>	<b>7.4100e-003</b>	<b>4.0000e-005</b>	<b>2.0800e-003</b>	<b>4.0000e-005</b>	<b>2.1300e-003</b>	<b>5.6000e-004</b>	<b>4.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>4.2204</b>	<b>4.2204</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>4.2265</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7600e-003	0.0000	3.7600e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
<b>Total</b>	<b>0.0199</b>	<b>0.1970</b>	<b>0.1449</b>	<b>2.4000e-004</b>	<b>3.7600e-003</b>	<b>0.0104</b>	<b>0.0142</b>	<b>5.7000e-004</b>	<b>9.7100e-003</b>	<b>0.0103</b>	<b>0.0000</b>	<b>21.0713</b>	<b>21.0713</b>	<b>5.3900e-003</b>	<b>0.0000</b>	<b>21.2060</b>



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**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2000e-004	0.0107	2.4900e-003	3.0000e-005	6.6000e-004	3.0000e-005	6.9000e-004	1.8000e-004	3.0000e-005	2.1000e-004	0.0000	2.9348	2.9348	2.0000e-004	0.0000	2.9399
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.4000e-004	4.9200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2856	1.2856	4.0000e-005	0.0000	1.2865
<b>Total</b>	<b>8.8000e-004</b>	<b>0.0111</b>	<b>7.4100e-003</b>	<b>4.0000e-005</b>	<b>2.0800e-003</b>	<b>4.0000e-005</b>	<b>2.1300e-003</b>	<b>5.6000e-004</b>	<b>4.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>4.2204</b>	<b>4.2204</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>4.2265</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
<b>Total</b>	<b>2.3200e-003</b>	<b>0.0274</b>	<b>0.0161</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>1.0500e-003</b>	<b>3.4400e-003</b>	<b>2.6000e-004</b>	<b>9.7000e-004</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>3.2290</b>	<b>3.2290</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.2551</b>

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**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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-005	4.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1187	0.1187	0.0000	0.0000	0.1188
<b>Total</b>	<b>5.0000e-005</b>	<b>4.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1187</b>	<b>0.1187</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1188</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
<b>Total</b>	<b>2.3200e-003</b>	<b>0.0274</b>	<b>0.0161</b>	<b>4.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0500e-003</b>	<b>2.1200e-003</b>	<b>1.2000e-004</b>	<b>9.7000e-004</b>	<b>1.0900e-003</b>	<b>0.0000</b>	<b>3.2290</b>	<b>3.2290</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.2551</b>

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**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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-005	4.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1187	0.1187	0.0000	0.0000	0.1188
<b>Total</b>	<b>5.0000e-005</b>	<b>4.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1187</b>	<b>0.1187</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1188</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
<b>Total</b>	<b>5.4800e-003</b>	<b>0.0606</b>	<b>0.0293</b>	<b>6.0000e-005</b>	<b>0.0197</b>	<b>2.7500e-003</b>	<b>0.0224</b>	<b>0.0101</b>	<b>2.5300e-003</b>	<b>0.0126</b>	<b>0.0000</b>	<b>5.4312</b>	<b>5.4312</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4751</b>

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**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.1300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2967	0.2967	1.0000e-005	0.0000	0.2969
<b>Total</b>	<b>1.3000e-004</b>	<b>1.0000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.2967</b>	<b>0.2967</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2969</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					8.8500e-003	0.0000	8.8500e-003	4.5500e-003	0.0000	4.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
<b>Total</b>	<b>5.4800e-003</b>	<b>0.0606</b>	<b>0.0293</b>	<b>6.0000e-005</b>	<b>8.8500e-003</b>	<b>2.7500e-003</b>	<b>0.0116</b>	<b>4.5500e-003</b>	<b>2.5300e-003</b>	<b>7.0800e-003</b>	<b>0.0000</b>	<b>5.4312</b>	<b>5.4312</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4751</b>

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**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.1300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2967	0.2967	1.0000e-005	0.0000	0.2969
<b>Total</b>	<b>1.3000e-004</b>	<b>1.0000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.2967</b>	<b>0.2967</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2969</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1186	0.9296	0.8447	1.4500e-003		0.0474	0.0474		0.0454	0.0454	0.0000	120.4363	120.4363	0.0237	0.0000	121.0286
<b>Total</b>	<b>0.1186</b>	<b>0.9296</b>	<b>0.8447</b>	<b>1.4500e-003</b>		<b>0.0474</b>	<b>0.0474</b>		<b>0.0454</b>	<b>0.0454</b>	<b>0.0000</b>	<b>120.4363</b>	<b>120.4363</b>	<b>0.0237</b>	<b>0.0000</b>	<b>121.0286</b>

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**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1600e-003	0.0687	0.0186	1.8000e-004	4.3800e-003	1.4000e-004	4.5200e-003	1.2700e-003	1.3000e-004	1.4000e-003	0.0000	17.1562	17.1562	1.0500e-003	0.0000	17.1825
Worker	0.0165	0.0128	0.1448	4.2000e-004	0.0420	3.5000e-004	0.0423	0.0111	3.2000e-004	0.0115	0.0000	37.8557	37.8557	1.1100e-003	0.0000	37.8836
<b>Total</b>	<b>0.0186</b>	<b>0.0815</b>	<b>0.1634</b>	<b>6.0000e-004</b>	<b>0.0463</b>	<b>4.9000e-004</b>	<b>0.0468</b>	<b>0.0124</b>	<b>4.5000e-004</b>	<b>0.0129</b>	<b>0.0000</b>	<b>55.0119</b>	<b>55.0119</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>55.0661</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1186	0.9296	0.8447	1.4500e-003		0.0474	0.0474		0.0454	0.0454	0.0000	120.4361	120.4361	0.0237	0.0000	121.0285
<b>Total</b>	<b>0.1186</b>	<b>0.9296</b>	<b>0.8447</b>	<b>1.4500e-003</b>		<b>0.0474</b>	<b>0.0474</b>		<b>0.0454</b>	<b>0.0454</b>	<b>0.0000</b>	<b>120.4361</b>	<b>120.4361</b>	<b>0.0237</b>	<b>0.0000</b>	<b>121.0285</b>

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**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1600e-003	0.0687	0.0186	1.8000e-004	4.3800e-003	1.4000e-004	4.5200e-003	1.2700e-003	1.3000e-004	1.4000e-003	0.0000	17.1562	17.1562	1.0500e-003	0.0000	17.1825
Worker	0.0165	0.0128	0.1448	4.2000e-004	0.0420	3.5000e-004	0.0423	0.0111	3.2000e-004	0.0115	0.0000	37.8557	37.8557	1.1100e-003	0.0000	37.8836
<b>Total</b>	<b>0.0186</b>	<b>0.0815</b>	<b>0.1634</b>	<b>6.0000e-004</b>	<b>0.0463</b>	<b>4.9000e-004</b>	<b>0.0468</b>	<b>0.0124</b>	<b>4.5000e-004</b>	<b>0.0129</b>	<b>0.0000</b>	<b>55.0119</b>	<b>55.0119</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>55.0661</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0965	0.7594	0.7464	1.3000e-003		0.0365	0.0365		0.0350	0.0350	0.0000	107.9937	107.9937	0.0208	0.0000	108.5145
<b>Total</b>	<b>0.0965</b>	<b>0.7594</b>	<b>0.7464</b>	<b>1.3000e-003</b>		<b>0.0365</b>	<b>0.0365</b>		<b>0.0350</b>	<b>0.0350</b>	<b>0.0000</b>	<b>107.9937</b>	<b>107.9937</b>	<b>0.0208</b>	<b>0.0000</b>	<b>108.5145</b>

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**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.8200e-003	0.0585	0.0158	1.6000e-004	3.9300e-003	1.1000e-004	4.0400e-003	1.1300e-003	1.0000e-004	1.2400e-003	0.0000	15.2463	15.2463	9.1000e-004	0.0000	15.2691
Worker	0.0139	0.0104	0.1196	3.6000e-004	0.0376	3.0000e-004	0.0379	9.9900e-003	2.8000e-004	0.0103	0.0000	32.7466	32.7466	9.0000e-004	0.0000	32.7691
<b>Total</b>	<b>0.0157</b>	<b>0.0689</b>	<b>0.1354</b>	<b>5.2000e-004</b>	<b>0.0415</b>	<b>4.1000e-004</b>	<b>0.0420</b>	<b>0.0111</b>	<b>3.8000e-004</b>	<b>0.0115</b>	<b>0.0000</b>	<b>47.9929</b>	<b>47.9929</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>48.0382</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0965	0.7594	0.7464	1.3000e-003		0.0365	0.0365		0.0350	0.0350	0.0000	107.9935	107.9935	0.0208	0.0000	108.5144
<b>Total</b>	<b>0.0965</b>	<b>0.7594</b>	<b>0.7464</b>	<b>1.3000e-003</b>		<b>0.0365</b>	<b>0.0365</b>		<b>0.0350</b>	<b>0.0350</b>	<b>0.0000</b>	<b>107.9935</b>	<b>107.9935</b>	<b>0.0208</b>	<b>0.0000</b>	<b>108.5144</b>



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**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.8200e-003	0.0585	0.0158	1.6000e-004	3.9300e-003	1.1000e-004	4.0400e-003	1.1300e-003	1.0000e-004	1.2400e-003	0.0000	15.2463	15.2463	9.1000e-004	0.0000	15.2691
Worker	0.0139	0.0104	0.1196	3.6000e-004	0.0376	3.0000e-004	0.0379	9.9900e-003	2.8000e-004	0.0103	0.0000	32.7466	32.7466	9.0000e-004	0.0000	32.7691
<b>Total</b>	<b>0.0157</b>	<b>0.0689</b>	<b>0.1354</b>	<b>5.2000e-004</b>	<b>0.0415</b>	<b>4.1000e-004</b>	<b>0.0420</b>	<b>0.0111</b>	<b>3.8000e-004</b>	<b>0.0115</b>	<b>0.0000</b>	<b>47.9929</b>	<b>47.9929</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>48.0382</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.7100e-003</b>	<b>0.0467</b>	<b>0.0585</b>	<b>9.0000e-005</b>		<b>2.4400e-003</b>	<b>2.4400e-003</b>		<b>2.2500e-003</b>	<b>2.2500e-003</b>	<b>0.0000</b>	<b>7.7550</b>	<b>7.7550</b>	<b>2.4600e-003</b>	<b>0.0000</b>	<b>7.8165</b>

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**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.6100e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7156	0.7156	2.0000e-005	0.0000	0.7161
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.6100e-003</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>1.0000e-005</b>	<b>8.3000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.7156</b>	<b>0.7156</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7161</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.7100e-003</b>	<b>0.0467</b>	<b>0.0585</b>	<b>9.0000e-005</b>		<b>2.4400e-003</b>	<b>2.4400e-003</b>		<b>2.2500e-003</b>	<b>2.2500e-003</b>	<b>0.0000</b>	<b>7.7550</b>	<b>7.7550</b>	<b>2.4600e-003</b>	<b>0.0000</b>	<b>7.8165</b>

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**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.6100e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7156	0.7156	2.0000e-005	0.0000	0.7161
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.6100e-003</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>1.0000e-005</b>	<b>8.3000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.7156</b>	<b>0.7156</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7161</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
<b>Total</b>	<b>0.0526</b>	<b>7.0400e-003</b>	<b>9.0700e-003</b>	<b>1.0000e-005</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.2787</b>

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**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.0000e-004	2.2600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6202	0.6202	2.0000e-005	0.0000	0.6206
<b>Total</b>	<b>2.6000e-004</b>	<b>2.0000e-004</b>	<b>2.2600e-003</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.6202</b>	<b>0.6202</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6206</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
<b>Total</b>	<b>0.0526</b>	<b>7.0400e-003</b>	<b>9.0700e-003</b>	<b>1.0000e-005</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.2787</b>

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**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.0000e-004	2.2600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6202	0.6202	2.0000e-005	0.0000	0.6206
<b>Total</b>	<b>2.6000e-004</b>	<b>2.0000e-004</b>	<b>2.2600e-003</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.6202</b>	<b>0.6202</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6206</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1404	0.2743	2.0151	6.9600e-003	0.6839	5.2300e-003	0.6892	0.1825	4.8300e-003	0.1873	0.0000	632.1418	632.1418	0.0185	0.0000	632.6052
Unmitigated	0.1404	0.2743	2.0151	6.9600e-003	0.6839	5.2300e-003	0.6892	0.1825	4.8300e-003	0.1873	0.0000	632.1418	632.1418	0.0185	0.0000	632.6052

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	545.30	523.98	480.52	1,821,342	1,821,342
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	545.30	523.98	480.52	1,821,342	1,821,342

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000
Unenclosed Parking Structure	0.583408	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.000000	0.000000	0.000000	0.005184	0.000000	0.000000

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

**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	61.4794	61.4794	0.0827	0.2927	150.7714
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	61.4794	61.4794	0.0827	0.2927	150.7714
NaturalGas Mitigated	4.2800e-003	0.0366	0.0156	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	42.3568	42.3568	8.1000e-004	7.8000e-004	42.6085
NaturalGas Unmitigated	4.2800e-003	0.0366	0.0156	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	42.3568	42.3568	8.1000e-004	7.8000e-004	42.6085

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	793737	4.2800e-003	0.0366	0.0156	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	42.3568	42.3568	8.1000e-004	7.8000e-004	42.6085
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.2800e-003</b>	<b>0.0366</b>	<b>0.0156</b>	<b>2.3000e-004</b>		<b>2.9600e-003</b>	<b>2.9600e-003</b>		<b>2.9600e-003</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>42.3568</b>	<b>42.3568</b>	<b>8.1000e-004</b>	<b>7.8000e-004</b>	<b>42.6085</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	793737	4.2800e-003	0.0366	0.0156	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	42.3568	42.3568	8.1000e-004	7.8000e-004	42.6085
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.2800e-003</b>	<b>0.0366</b>	<b>0.0156</b>	<b>2.3000e-004</b>		<b>2.9600e-003</b>	<b>2.9600e-003</b>		<b>2.9600e-003</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>42.3568</b>	<b>42.3568</b>	<b>8.1000e-004</b>	<b>7.8000e-004</b>	<b>42.6085</b>



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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	320971	56.2676	0.0757	0.2679	137.9902
Unenclosed Parking Structure	29729.7	5.2118	7.0100e-003	0.0248	12.7812
<b>Total</b>		<b>61.4794</b>	<b>0.0827</b>	<b>0.2927</b>	<b>150.7714</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	320971	56.2676	0.0757	0.2679	137.9902
Unenclosed Parking Structure	29729.7	5.2118	7.0100e-003	0.0248	12.7812
<b>Total</b>		<b>61.4794</b>	<b>0.0827</b>	<b>0.2927</b>	<b>150.7714</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3280	9.7500e-003	0.8458	4.0000e-005		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	1.3813	1.3813	1.3300e-003	0.0000	1.4146
Unmitigated	0.3280	9.7500e-003	0.8458	4.0000e-005		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	1.3813	1.3813	1.3300e-003	0.0000	1.4146

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	5.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0255	9.7500e-003	0.8458	4.0000e-005		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	1.3813	1.3813	1.3300e-003	0.0000	1.4146
<b>Total</b>	<b>0.3280</b>	<b>9.7500e-003</b>	<b>0.8458</b>	<b>4.0000e-005</b>		<b>4.6800e-003</b>	<b>4.6800e-003</b>		<b>4.6800e-003</b>	<b>4.6800e-003</b>	<b>0.0000</b>	<b>1.3813</b>	<b>1.3813</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>1.4146</b>

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

**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	5.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0255	9.7500e-003	0.8458	4.0000e-005		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	1.3813	1.3813	1.3300e-003	0.0000	1.4146
<b>Total</b>	<b>0.3280</b>	<b>9.7500e-003</b>	<b>0.8458</b>	<b>4.0000e-005</b>		<b>4.6800e-003</b>	<b>4.6800e-003</b>		<b>4.6800e-003</b>	<b>4.6800e-003</b>	<b>0.0000</b>	<b>1.3813</b>	<b>1.3813</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>1.4146</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Alexan GP/Z Amendment (Project Emissions) CH - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.4502	0.1993	0.0934	53.2674
Unmitigated	20.4502	0.1993	0.0934	53.2674

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.34263 / 3.36818	20.4502	0.1993	0.0934	53.2674
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>20.4502</b>	<b>0.1993</b>	<b>0.0934</b>	<b>53.2674</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.34263 / 3.36818	20.4502	0.1993	0.0934	53.2674
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>20.4502</b>	<b>0.1993</b>	<b>0.0934</b>	<b>53.2674</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.9142	0.1131	0.0000	4.7424
Unmitigated	1.9142	0.1131	0.0000	4.7424

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	9.43	1.9142	0.1131	0.0000	4.7424
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.9142</b>	<b>0.1131</b>	<b>0.0000</b>	<b>4.7424</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	9.43	1.9142	0.1131	0.0000	4.7424
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.9142</b>	<b>0.1131</b>	<b>0.0000</b>	<b>4.7424</b>

**9.0 Operational Offroad**

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

#### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	6	50	0.73	Diesel

#### Boilers

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

Equipment Type	Number
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### 10.1 Stationary Sources

#### Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (50 - 75 HP)	4.9000e-004	1.6100e-003	1.7900e-003	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2285	0.2285	3.0000e-005	0.0000	0.2293
Fire Pump - Diesel (50 - 75 HP)	2.5000e-004	8.0000e-004	8.9000e-004	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.1142	0.1142	2.0000e-005	0.0000	0.1146
<b>Total</b>	<b>7.4000e-004</b>	<b>2.4100e-003</b>	<b>2.6800e-003</b>	<b>0.0000</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>		<b>1.4000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.3427</b>	<b>0.3427</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.3439</b>

### 11.0 Vegetation

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## **APPENDIX C: HRA Calculations**

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Alexan SP Residential Development Draft EIR (Appendix A3)

DPM Emission Estimates for I-210

Derived by MIG from EMFAC2017 data file

Vehicle Class	2023 - 2050 Average PM10 Emission Factor (Grams/Mile)	2023 Vehicle Population	Vehicle Class Percentage of Population	I-210 ADT	Class Vehicles on I-210	Trip Length (miles)	Total Daily Class Miles	Total Daily PM10 (Grams)	Total Daily PM10 (Grams/Sec)
LDA	0.001611306	36,741	0.49%	252,000	1,224	0.63	776	1.2509421	1.44785E-05
LDT1	0.028116599	252	0.00%	252,000	8	0.63	5	0.1499634	1.73569E-06
LDT2	0.003345548	9,765	0.13%	252,000	325	0.63	206	0.6903391	7.99004E-06
LHDT1	0.006014986	68,776	0.91%	252,000	2,291	0.63	1,453	8.7415092	0.000101175
LHDT2	0.010734683	27,874	0.37%	252,000	928	0.63	589	6.3226286	7.31786E-05
HHDT	0.033787693	57,613	0.76%	252,000	1,919	0.63	1,217	41.133135	0.000476078
MDV	0.001345391	21,298	0.28%	252,000	709	0.63	450	0.6054664	7.00771E-06
MH	0.038410995	6,167	0.08%	252,000	205	0.63	130	5.0052745	5.79314E-05
MHDT	0.015244088	64,520	0.85%	252,000	2,149	0.63	1,363	20.783071	0.000240545
OBUS	0.023503175	3,071	0.04%	252,000	102	0.63	65	1.5253977	1.76551E-05
SBUS	0.018215134	3,497	0.05%	252,000	116	0.63	74	1.3460165	1.55789E-05
UBUS	0.003787529	10	0.00%	252,000	0	0.63	0	0.0008114	9.39173E-09
ALL DSL	0.013830779	299,585	3.96%	252,000	9,977	0.63	6,330	87.554555	0.001013363

Notes:

2023 - 2050 average emission factor derived from EMFAC 2017

2023 vehicle population derived from EMFAC2017

I-210 ADT from 2016 Caltrans AADT data

Aermod Source Area Size: 550951.3 square feet

Rate: 1.84E-09 grams/second/sq foot

Aermod Source Area Size: 51185.1 square meters

Rate: 1.98E-08 grams/second/sq meter

**Alexan SP Residential Development Draft EIR (Appendix A3)**  
**Los Angeles South Coast, 2023 to 2050 Average Diesel Vehicle Emission Factors (65 MPH)**  
**Derived by MIG from EMFAC2017 data file**

Vehicle Class	Speed	PM10 Average Running Exhaust Emission Factor (Grams/Mile)
HHDT	65 MPH	0.033787693
LDA	65 MPH	0.001611306
LDT1	65 MPH	0.028116599
LDY2	65 MPH	0.003345548
LHDT1	65 MPH	0.006014986
LHDT2	65 MPH	0.010734683
MDV	65 MPH	0.001345391
MH	65 MPH	0.038410995
MHDT	65 MPH	0.015244088
OBUS	65 MPH	0.023503175
SBUS	65 MPH	0.018215134
UBUS	65 MPH	0.003787529

SOURCE: EMFAC 2017

Note: SBUS factors are for 55 mph travel speed

**Alexan SP Residential Development Draft EIR (Appendix A3)**  
**EMFAC2017 WebDataBase Output file**  
**Los Angeles South Coast, 2023 to 2050 Diesel Vehicle Emission Factors (65 MPH)**

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RU NEX	TOG_RUN EX	CO_RUN EX	NOx_RU NEX	SOx_RUN EX	CO2_RUN EX	PM10_RU NEX	PM2_5_ RUNEX	N2O_RU NEX
Los Angeles (SC)	2023	HHDT	Aggregated	65	DSL	799268.06	0.01991	0.022666	0.13407	2.06005	0.01231	1302.772	0.035264	0.03374	0.20478
Los Angeles (SC)	2023	LDA	Aggregated	65	DSL	50688.907	0.010517	0.011973	0.13592	0.06544	0.002	211.1015	0.007185	0.00687	0.03318
Los Angeles (SC)	2023	LDT1	Aggregated	65	DSL	217.96476	0.16994	0.193466	1.49002	1.23385	0.00436	461.0612	0.129358	0.12376	0.07247
Los Angeles (SC)	2023	LDT2	Aggregated	65	DSL	14367.879	0.00863	0.009825	0.07343	0.03335	0.00269	284.8583	0.004514	0.00432	0.04478
Los Angeles (SC)	2023	LHDT1	Aggregated	65	DSL	479102.97	0.045511	0.051811	0.31168	1.16363	0.00437	461.9479	0.011195	0.01071	0.07261
Los Angeles (SC)	2023	LHDT2	Aggregated	65	DSL	186539.62	0.044694	0.050881	0.30283	1.12006	0.00468	494.9117	0.013031	0.01247	0.07779
Los Angeles (SC)	2023	MDV	Aggregated	65	DSL	29266.79	0.006022	0.006856	0.10253	0.03484	0.00353	373.8603	0.00372	0.00356	0.05877
Los Angeles (SC)	2023	MH	Aggregated	65	DSL	6951.7461	0.042254	0.048103	0.18112	2.72341	0.00824	871.8403	0.089196	0.08534	0.13704
Los Angeles (SC)	2023	MHDT	Aggregated	65	DSL	459007.72	0.008278	0.009424	0.04933	0.9973	0.00865	916.0903	0.014408	0.01378	0.144
Los Angeles (SC)	2023	OBUS	Aggregated	65	DSL	29063.743	0.012715	0.014475	0.08454	1.4643	0.01121	1186.824	0.023288	0.02228	0.18655
Los Angeles (SC)	2023	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2023	UBUS	Aggregated	65	DSL	18.700823	0.000495	0.035384	0.04306	0.26469	0.0125	1322.252	0.02121	0.02029	0.20784
Los Angeles (SC)	2024	HHDT	Aggregated	65	DSL	728804.82	0.019918	0.022676	0.13446	2.03484	0.01209	1279.441	0.035574	0.03403	0.20111
Los Angeles (SC)	2024	LDA	Aggregated	65	DSL	47924.098	0.008547	0.00973	0.12233	0.05269	0.00194	205.3442	0.005733	0.00549	0.03228
Los Angeles (SC)	2024	LDT1	Aggregated	65	DSL	184.11359	0.158071	0.179953	1.40112	1.15731	0.00429	453.7784	0.12027	0.11507	0.07133
Los Angeles (SC)	2024	LDT2	Aggregated	65	DSL	13833.494	0.007723	0.008792	0.07011	0.02924	0.00262	276.8998	0.003866	0.0037	0.04352
Los Angeles (SC)	2024	LHDT1	Aggregated	65	DSL	457373.13	0.041563	0.047317	0.2782	0.99191	0.0043	454.6272	0.010258	0.00981	0.07146
Los Angeles (SC)	2024	LHDT2	Aggregated	65	DSL	178207.67	0.041056	0.046739	0.27215	0.96166	0.00461	487.138	0.012453	0.01191	0.07657
Los Angeles (SC)	2024	MDV	Aggregated	65	DSL	28191.365	0.00556	0.00633	0.09887	0.03059	0.00344	363.4213	0.003388	0.00324	0.05712
Los Angeles (SC)	2024	MH	Aggregated	65	DSL	6087.028	0.039881	0.045402	0.16916	2.5788	0.00811	857.8617	0.081662	0.07813	0.13484
Los Angeles (SC)	2024	MHDT	Aggregated	65	DSL	397785.14	0.008283	0.00943	0.04962	0.99496	0.00852	901.7114	0.014664	0.01403	0.14174
Los Angeles (SC)	2024	OBUS	Aggregated	65	DSL	25867.378	0.013025	0.014828	0.08674	1.48845	0.01116	1180.789	0.024209	0.02316	0.1856
Los Angeles (SC)	2024	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2024	UBUS	Aggregated	65	DSL	16.164662	0.000495	0.035384	0.04306	0.26469	0.0125	1322.252	0.02121	0.02029	0.20784
Los Angeles (SC)	2025	HHDT	Aggregated	65	DSL	736699.91	0.019847	0.022594	0.13428	2.00124	0.01184	1253.364	0.03557	0.03403	0.19701
Los Angeles (SC)	2025	LDA	Aggregated	65	DSL	49428.002	0.00734	0.008356	0.11233	0.04291	0.00189	199.6093	0.004802	0.00459	0.03138
Los Angeles (SC)	2025	LDT1	Aggregated	65	DSL	171.63949	0.148055	0.16855	1.31508	1.08196	0.00421	445.6169	0.112515	0.10765	0.07004
Los Angeles (SC)	2025	LDT2	Aggregated	65	DSL	14494.446	0.007366	0.008386	0.06852	0.02636	0.00254	269.0374	0.003594	0.00344	0.04229
Los Angeles (SC)	2025	LHDT1	Aggregated	65	DSL	475877.02	0.038219	0.043509	0.2498	0.84716	0.00423	447.2447	0.009465	0.00906	0.0703
Los Angeles (SC)	2025	LHDT2	Aggregated	65	DSL	185549.02	0.038015	0.043278	0.24644	0.82918	0.00453	479.3299	0.012031	0.01151	0.07534
Los Angeles (SC)	2025	MDV	Aggregated	65	DSL	29536.939	0.005093	0.005798	0.09548	0.02662	0.00334	353.036	0.003032	0.0029	0.05549

Los Angeles (SC)	2025	MH	Aggregated	65	DSL	6275.8008	0.037841	0.04308	0.15878	2.45261	0.00798	844.5477	0.075126	0.07188	0.13275
Los Angeles (SC)	2025	MHDT	Aggregated	65	DSL	405515.99	0.00828	0.009426	0.04982	0.99061	0.00838	886.7301	0.014865	0.01422	0.13938
Los Angeles (SC)	2025	OBUS	Aggregated	65	DSL	26409.561	0.012935	0.014725	0.08611	1.45174	0.0109	1153.704	0.023915	0.02288	0.18135
Los Angeles (SC)	2025	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2025	UBUS	Aggregated	65	DSL	10.294097	0.000495	0.035384	0.04306	0.26469	0.0125	1322.252	0.02121	0.02029	0.20784
Los Angeles (SC)	2026	HHDT	Aggregated	65	DSL	744937.2	0.019723	0.022453	0.13375	1.96218	0.01159	1226.569	0.035384	0.03385	0.1928
Los Angeles (SC)	2026	LDA	Aggregated	65	DSL	50629.893	0.006184	0.00704	0.10336	0.03414	0.00184	194.6935	0.003893	0.00372	0.0306
Los Angeles (SC)	2026	LDT1	Aggregated	65	DSL	154.47559	0.129352	0.147259	1.19404	0.96234	0.00412	435.936	0.096974	0.09278	0.06852
Los Angeles (SC)	2026	LDT2	Aggregated	65	DSL	15061.356	0.007238	0.00824	0.06833	0.025	0.00248	262.4852	0.00351	0.00336	0.04126
Los Angeles (SC)	2026	LHDT1	Aggregated	65	DSL	493044.72	0.035341	0.040234	0.22543	0.72356	0.00416	439.8214	0.008781	0.0084	0.06913
Los Angeles (SC)	2026	LHDT2	Aggregated	65	DSL	192326.6	0.035425	0.040329	0.22441	0.71695	0.00446	471.4714	0.011694	0.01119	0.07411
Los Angeles (SC)	2026	MDV	Aggregated	65	DSL	30684.241	0.004658	0.005303	0.09252	0.02311	0.00325	344.1748	0.002689	0.00257	0.0541
Los Angeles (SC)	2026	MH	Aggregated	65	DSL	6451.126	0.03602	0.041006	0.14939	2.34165	0.00787	832.7743	0.069226	0.06623	0.1309
Los Angeles (SC)	2026	MHDT	Aggregated	65	DSL	413255.64	0.008265	0.009409	0.04994	0.98312	0.00824	872.3158	0.015	0.01435	0.13712
Los Angeles (SC)	2026	OBUS	Aggregated	65	DSL	26957.96	0.012858	0.014638	0.08558	1.42014	0.01067	1129.142	0.023676	0.02265	0.17749
Los Angeles (SC)	2026	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2026	UBUS	Aggregated	65	DSL	10.294097	0.000495	0.035384	0.04306	0.26469	0.0125	1322.252	0.02121	0.02029	0.20784
Los Angeles (SC)	2027	HHDT	Aggregated	65	DSL	754804.67	0.01958	0.02229	0.13306	1.91976	0.01132	1197.71	0.035115	0.0336	0.18826
Los Angeles (SC)	2027	LDA	Aggregated	65	DSL	51759.942	0.005111	0.005818	0.09534	0.02638	0.0018	190.4313	0.003037	0.00291	0.02993
Los Angeles (SC)	2027	LDT1	Aggregated	65	DSL	131.7136	0.094135	0.107167	0.9999	0.75606	0.00399	422.5541	0.067023	0.06412	0.06642
Los Angeles (SC)	2027	LDT2	Aggregated	65	DSL	15586.806	0.006953	0.007915	0.06723	0.02285	0.00243	256.6696	0.003292	0.00315	0.04034
Los Angeles (SC)	2027	LHDT1	Aggregated	65	DSL	508818.19	0.032898	0.037452	0.20466	0.61905	0.00409	432.4124	0.008186	0.00783	0.06797
Los Angeles (SC)	2027	LHDT2	Aggregated	65	DSL	198538.72	0.033239	0.03784	0.2057	0.62254	0.00438	463.6264	0.011427	0.01093	0.07288
Los Angeles (SC)	2027	MDV	Aggregated	65	DSL	31758.908	0.004116	0.004686	0.08906	0.01913	0.00318	336.4147	0.002248	0.00215	0.05288
Los Angeles (SC)	2027	MH	Aggregated	65	DSL	6610.3292	0.034345	0.039099	0.14084	2.24223	0.00776	820.5212	0.063944	0.06118	0.12897
Los Angeles (SC)	2027	MHDT	Aggregated	65	DSL	421726.1	0.008244	0.009386	0.04998	0.97259	0.0081	857.0713	0.015078	0.01443	0.13472
Los Angeles (SC)	2027	OBUS	Aggregated	65	DSL	27568.655	0.012773	0.014541	0.08499	1.38943	0.01044	1104.599	0.023399	0.02239	0.17363
Los Angeles (SC)	2027	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2027	UBUS	Aggregated	65	DSL	10.294097	0.000495	0.035384	0.04306	0.26469	0.0125	1322.252	0.02121	0.02029	0.20784
Los Angeles (SC)	2028	HHDT	Aggregated	65	DSL	761201.74	0.019445	0.022136	0.1324	1.88367	0.01105	1169.393	0.034846	0.03334	0.18381
Los Angeles (SC)	2028	LDA	Aggregated	65	DSL	52753.133	0.004426	0.005039	0.08879	0.0205	0.00177	186.75	0.002353	0.00225	0.02935
Los Angeles (SC)	2028	LDT1	Aggregated	65	DSL	120.41904	0.08061	0.091769	0.8629	0.63493	0.00388	410.9282	0.050898	0.0487	0.06459
Los Angeles (SC)	2028	LDT2	Aggregated	65	DSL	16060.241	0.006903	0.007859	0.06738	0.02212	0.00238	251.7181	0.003252	0.00311	0.03957
Los Angeles (SC)	2028	LHDT1	Aggregated	65	DSL	523380.91	0.030811	0.035076	0.18689	0.52999	0.00403	425.8955	0.007668	0.00734	0.06694
Los Angeles (SC)	2028	LHDT2	Aggregated	65	DSL	204301.5	0.031397	0.035744	0.1899	0.54321	0.00432	456.7036	0.011211	0.01073	0.07179
Los Angeles (SC)	2028	MDV	Aggregated	65	DSL	32731.716	0.003808	0.004335	0.08656	0.01637	0.00312	329.7668	0.001939	0.00186	0.05183
Los Angeles (SC)	2028	MH	Aggregated	65	DSL	6753.1991	0.032849	0.037396	0.13319	2.15383	0.00765	809.1717	0.059238	0.05668	0.12719
Los Angeles (SC)	2028	MHDT	Aggregated	65	DSL	427972.77	0.008235	0.009375	0.05007	0.96792	0.00796	843.063	0.01518	0.01452	0.13252
Los Angeles (SC)	2028	OBUS	Aggregated	65	DSL	28021.322	0.012751	0.014517	0.08482	1.37672	0.01025	1084.547	0.023373	0.02236	0.17048
Los Angeles (SC)	2028	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2028	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2029	HHDT	Aggregated	65	DSL	767642.65	0.019305	0.021977	0.13171	1.85243	0.0108	1143.231	0.034563	0.03307	0.1797
Los Angeles (SC)	2029	LDA	Aggregated	65	DSL	53625.313	0.003747	0.004265	0.08255	0.01646	0.00174	183.6033	0.001892	0.00181	0.02886
Los Angeles (SC)	2029	LDT1	Aggregated	65	DSL	111.18691	0.060066	0.068381	0.66775	0.52913	0.00379	401.0028	0.037547	0.03592	0.06303
Los Angeles (SC)	2029	LDT2	Aggregated	65	DSL	16470.84	0.006845	0.007793	0.06741	0.0216	0.00234	247.2951	0.00323	0.00309	0.03887
Los Angeles (SC)	2029	LHDT1	Aggregated	65	DSL	536960.96	0.029044	0.033064	0.17176	0.45457	0.00397	420.2819	0.007213	0.0069	0.06606

Los Angeles (SC)	2029	LHDT2	Aggregated	65	DSL	209678.27	0.029848	0.03398	0.17655	0.47657	0.00426	450.6921	0.011031	0.01055	0.07084
Los Angeles (SC)	2029	MDV	Aggregated	65	DSL	33601.162	0.003484	0.003966	0.08397	0.01427	0.00306	323.9679	0.001704	0.00163	0.05092
Los Angeles (SC)	2029	MH	Aggregated	65	DSL	6885.0679	0.03149	0.03585	0.12624	2.07418	0.00755	798.9865	0.054991	0.05261	0.12559
Los Angeles (SC)	2029	MHDT	Aggregated	65	DSL	434035.11	0.008227	0.009366	0.05014	0.96462	0.00784	830.3164	0.015267	0.01461	0.13051
Los Angeles (SC)	2029	OBUS	Aggregated	65	DSL	28475.673	0.012756	0.014522	0.08482	1.37366	0.01009	1067.809	0.023448	0.02243	0.16784
Los Angeles (SC)	2029	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2029	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2030	HHDT	Aggregated	65	DSL	774146.42	0.019183	0.021838	0.13112	1.82606	0.01057	1119.021	0.03433	0.03285	0.17589
Los Angeles (SC)	2030	LDA	Aggregated	65	DSL	54392.726	0.003206	0.00365	0.07762	0.01332	0.00171	180.8433	0.001519	0.00145	0.02843
Los Angeles (SC)	2030	LDT1	Aggregated	65	DSL	104.85422	0.043966	0.050052	0.51188	0.43854	0.0037	391.139	0.027097	0.02592	0.06148
Los Angeles (SC)	2030	LDT2	Aggregated	65	DSL	16829.679	0.006792	0.007732	0.06743	0.02116	0.0023	243.3319	0.003209	0.00307	0.03825
Los Angeles (SC)	2030	LHDT1	Aggregated	65	DSL	549638.13	0.027526	0.031336	0.15884	0.38971	0.00393	415.3829	0.006818	0.00652	0.06529
Los Angeles (SC)	2030	LHDT2	Aggregated	65	DSL	214671.83	0.028528	0.032478	0.16532	0.41976	0.00421	445.4095	0.010901	0.01043	0.07001
Los Angeles (SC)	2030	MDV	Aggregated	65	DSL	34392.602	0.003284	0.003739	0.08249	0.01284	0.00301	318.9254	0.001549	0.00148	0.05013
Los Angeles (SC)	2030	MH	Aggregated	65	DSL	7009.1637	0.03028	0.034472	0.12004	2.00309	0.00747	789.9373	0.051217	0.049	0.12417
Los Angeles (SC)	2030	MHDT	Aggregated	65	DSL	439896.7	0.008216	0.009354	0.05018	0.96089	0.00773	818.5071	0.015328	0.01466	0.12866
Los Angeles (SC)	2030	OBUS	Aggregated	65	DSL	28902.737	0.012783	0.014552	0.08498	1.37437	0.00996	1054.146	0.0236	0.02258	0.1657
Los Angeles (SC)	2030	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2030	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2031	HHDT	Aggregated	65	DSL	698779.21	0.019077	0.021718	0.13063	1.80335	0.01036	1096.929	0.034137	0.03266	0.17242
Los Angeles (SC)	2031	LDA	Aggregated	65	DSL	51753.869	0.002982	0.003395	0.07558	0.01177	0.00169	178.5202	0.001351	0.00129	0.02806
Los Angeles (SC)	2031	LDT1	Aggregated	65	DSL	94.677218	0.032569	0.037077	0.39845	0.36636	0.00361	381.8873	0.019713	0.01886	0.06003
Los Angeles (SC)	2031	LDT2	Aggregated	65	DSL	16100.862	0.00676	0.007696	0.06759	0.02086	0.00227	239.7569	0.003201	0.00306	0.03769
Los Angeles (SC)	2031	LHDT1	Aggregated	65	DSL	518485.7	0.026244	0.029877	0.14798	0.33481	0.00389	411.0767	0.006477	0.0062	0.06462
Los Angeles (SC)	2031	LHDT2	Aggregated	65	DSL	202524.13	0.027399	0.031192	0.15585	0.37144	0.00417	440.7432	0.010769	0.0103	0.06928
Los Angeles (SC)	2031	MDV	Aggregated	65	DSL	32977.415	0.003107	0.003537	0.08118	0.01163	0.00297	314.4654	0.001409	0.00135	0.04943
Los Angeles (SC)	2031	MH	Aggregated	65	DSL	5857.7218	0.029111	0.033141	0.1141	1.93938	0.00739	781.8371	0.047666	0.0456	0.12289
Los Angeles (SC)	2031	MHDT	Aggregated	65	DSL	365873.18	0.008204	0.00934	0.05021	0.95767	0.00763	807.7198	0.015371	0.01471	0.12696
Los Angeles (SC)	2031	OBUS	Aggregated	65	DSL	25067.367	0.013013	0.014814	0.08668	1.38657	0.00994	1052.353	0.024048	0.02301	0.16542
Los Angeles (SC)	2031	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2031	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2032	HHDT	Aggregated	65	DSL	703891.58	0.018975	0.021602	0.13014	1.77889	0.01018	1077.114	0.03395	0.03248	0.16931
Los Angeles (SC)	2032	LDA	Aggregated	65	DSL	52301.53	0.002705	0.003079	0.07307	0.01014	0.00167	176.4158	0.00115	0.0011	0.02773
Los Angeles (SC)	2032	LDT1	Aggregated	65	DSL	92.627303	0.026221	0.029851	0.33064	0.31399	0.00353	373.5866	0.015622	0.01495	0.05872
Los Angeles (SC)	2032	LDT2	Aggregated	65	DSL	16350.667	0.006758	0.007693	0.06796	0.02071	0.00224	236.5496	0.00321	0.00307	0.03718
Los Angeles (SC)	2032	LHDT1	Aggregated	65	DSL	528867.02	0.025181	0.028667	0.13914	0.28887	0.00385	407.2786	0.006188	0.00592	0.06402
Los Angeles (SC)	2032	LHDT2	Aggregated	65	DSL	206556.18	0.026392	0.030046	0.14757	0.32906	0.00413	436.5922	0.010641	0.01018	0.06863
Los Angeles (SC)	2032	MDV	Aggregated	65	DSL	33574.303	0.002985	0.003399	0.08034	0.01076	0.00294	310.5233	0.001305	0.00125	0.04881
Los Angeles (SC)	2032	MH	Aggregated	65	DSL	5947.3015	0.028114	0.032006	0.10887	1.88085	0.00732	774.6125	0.044491	0.04257	0.12176
Los Angeles (SC)	2032	MHDT	Aggregated	65	DSL	369778.25	0.008194	0.009328	0.05022	0.95269	0.00754	798.3107	0.015409	0.01474	0.12548
Los Angeles (SC)	2032	OBUS	Aggregated	65	DSL	25410.727	0.013015	0.014817	0.08668	1.37784	0.00984	1041.787	0.024094	0.02305	0.16375
Los Angeles (SC)	2032	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2032	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2033	HHDT	Aggregated	65	DSL	709041.48	0.018888	0.021503	0.12973	1.75654	0.01001	1059.737	0.033785	0.03232	0.16658
Los Angeles (SC)	2033	LDA	Aggregated	65	DSL	52789.505	0.002586	0.002943	0.072	0.00931	0.00165	174.6254	0.001052	0.00101	0.02745
Los Angeles (SC)	2033	LDT1	Aggregated	65	DSL	91.661801	0.023071	0.026265	0.29285	0.2771	0.00346	366.4151	0.013611	0.01302	0.0576

Los Angeles (SC)	2033	LDT2	Aggregated	65	DSL	16562.233	0.006753	0.007687	0.06825	0.02058	0.00221	233.6535	0.003215	0.00308	0.03673
Los Angeles (SC)	2033	LHDT1	Aggregated	65	DSL	538590.92	0.024277	0.027637	0.13168	0.24952	0.00382	403.9005	0.005935	0.00568	0.06349
Los Angeles (SC)	2033	LHDT2	Aggregated	65	DSL	210334.51	0.025532	0.029066	0.14062	0.293	0.00409	432.8937	0.010524	0.01007	0.06804
Los Angeles (SC)	2033	MDV	Aggregated	65	DSL	34107.344	0.002884	0.003283	0.07966	0.01006	0.0029	307.0209	0.001216	0.00116	0.04826
Los Angeles (SC)	2033	MH	Aggregated	65	DSL	6031.8887	0.027156	0.030916	0.10385	1.82625	0.00726	768.0846	0.041485	0.03969	0.12073
Los Angeles (SC)	2033	MHDT	Aggregated	65	DSL	373625.96	0.008187	0.009321	0.05025	0.94777	0.00746	789.9628	0.015445	0.01478	0.12417
Los Angeles (SC)	2033	OBUS	Aggregated	65	DSL	25758.491	0.012999	0.014798	0.08655	1.36534	0.00975	1031.725	0.024069	0.02303	0.16217
Los Angeles (SC)	2033	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2033	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2034	HHDT	Aggregated	65	DSL	714187.77	0.018799	0.021401	0.12929	1.73436	0.00986	1044.043	0.033599	0.03215	0.16411
Los Angeles (SC)	2034	LDA	Aggregated	65	DSL	53209.165	0.002481	0.002824	0.07106	0.00863	0.00164	173.0552	0.000965	0.00092	0.0272
Los Angeles (SC)	2034	LDT1	Aggregated	65	DSL	90.908981	0.020391	0.023214	0.26028	0.24458	0.0034	359.9147	0.011902	0.01139	0.05657
Los Angeles (SC)	2034	LDT2	Aggregated	65	DSL	16741.602	0.006752	0.007686	0.06853	0.02048	0.00218	231.0666	0.003222	0.00308	0.03632
Los Angeles (SC)	2034	LHDT1	Aggregated	65	DSL	547721.99	0.023539	0.026798	0.12569	0.21712	0.00379	400.8968	0.005714	0.00547	0.06302
Los Angeles (SC)	2034	LHDT2	Aggregated	65	DSL	213887.33	0.024786	0.028217	0.13475	0.26244	0.00406	429.5969	0.010385	0.00994	0.06753
Los Angeles (SC)	2034	MDV	Aggregated	65	DSL	34584.797	0.002798	0.003186	0.07909	0.00948	0.00287	303.9212	0.001138	0.00109	0.04777
Los Angeles (SC)	2034	MH	Aggregated	65	DSL	6111.2499	0.026254	0.029888	0.09909	1.77604	0.00721	762.1884	0.038654	0.03698	0.11981
Los Angeles (SC)	2034	MHDT	Aggregated	65	DSL	377375.99	0.008176	0.009308	0.05023	0.94168	0.00739	782.1761	0.015454	0.01479	0.12295
Los Angeles (SC)	2034	OBUS	Aggregated	65	DSL	26084.203	0.012955	0.014749	0.08624	1.34866	0.00965	1021.747	0.023926	0.02289	0.1606
Los Angeles (SC)	2034	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2034	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2035	HHDT	Aggregated	65	DSL	719365.02	0.018725	0.021317	0.1289	1.71479	0.00973	1030.152	0.03343	0.03198	0.16193
Los Angeles (SC)	2035	LDA	Aggregated	65	DSL	53565.494	0.002393	0.002724	0.07026	0.00808	0.00162	171.6893	0.00089	0.00085	0.02699
Los Angeles (SC)	2035	LDT1	Aggregated	65	DSL	89.797102	0.016111	0.018341	0.21437	0.2086	0.00334	353.7096	0.009146	0.00875	0.0556
Los Angeles (SC)	2035	LDT2	Aggregated	65	DSL	16895.25	0.006758	0.007694	0.06883	0.02044	0.00216	228.799	0.003233	0.00309	0.03596
Los Angeles (SC)	2035	LHDT1	Aggregated	65	DSL	556093.41	0.02288	0.026047	0.12026	0.18801	0.00376	398.1862	0.005512	0.00527	0.06259
Los Angeles (SC)	2035	LHDT2	Aggregated	65	DSL	217125.14	0.024102	0.027439	0.12928	0.23475	0.00403	426.6024	0.010237	0.00979	0.06706
Los Angeles (SC)	2035	MDV	Aggregated	65	DSL	35003.191	0.002714	0.003089	0.0785	0.00896	0.00285	301.1604	0.001062	0.00102	0.04734
Los Angeles (SC)	2035	MH	Aggregated	65	DSL	6186.5102	0.025437	0.028958	0.09468	1.73047	0.00716	756.8856	0.036045	0.03449	0.11897
Los Angeles (SC)	2035	MHDT	Aggregated	65	DSL	381084.18	0.008161	0.009291	0.05019	0.93499	0.00732	775.1561	0.01544	0.01477	0.12184
Los Angeles (SC)	2035	OBUS	Aggregated	65	DSL	26429.075	0.012901	0.014687	0.08586	1.33178	0.00956	1012.139	0.023745	0.02272	0.15909
Los Angeles (SC)	2035	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2035	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2036	HHDT	Aggregated	65	DSL	725680.71	0.018669	0.021254	0.12863	1.69862	0.00962	1018.295	0.033303	0.03186	0.16006
Los Angeles (SC)	2036	LDA	Aggregated	65	DSL	53870.946	0.00231	0.00263	0.0695	0.00759	0.00161	170.5047	0.00082	0.00078	0.0268
Los Angeles (SC)	2036	LDT1	Aggregated	65	DSL	89.277629	0.013915	0.015842	0.18791	0.18244	0.00329	348.3499	0.007746	0.00741	0.05476
Los Angeles (SC)	2036	LDT2	Aggregated	65	DSL	17030.443	0.006762	0.007698	0.06907	0.02039	0.00214	226.8391	0.003241	0.0031	0.03566
Los Angeles (SC)	2036	LHDT1	Aggregated	65	DSL	563846.56	0.022324	0.025415	0.11566	0.16314	0.00374	395.7492	0.005336	0.00511	0.06221
Los Angeles (SC)	2036	LHDT2	Aggregated	65	DSL	220225.32	0.023597	0.026863	0.12527	0.21192	0.00401	423.9792	0.010243	0.0098	0.06664
Los Angeles (SC)	2036	MDV	Aggregated	65	DSL	35377.631	0.002644	0.00301	0.07802	0.00854	0.00282	298.7247	0.000997	0.00095	0.04696
Los Angeles (SC)	2036	MH	Aggregated	65	DSL	6259.366	0.024701	0.028121	0.09066	1.68829	0.00711	752.0976	0.033628	0.03217	0.11822
Los Angeles (SC)	2036	MHDT	Aggregated	65	DSL	385390.12	0.008148	0.009276	0.05015	0.9283	0.00726	768.8635	0.015421	0.01475	0.12085
Los Angeles (SC)	2036	OBUS	Aggregated	65	DSL	26763.823	0.012844	0.014622	0.08547	1.31488	0.00948	1003.274	0.023549	0.02253	0.1577
Los Angeles (SC)	2036	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2036	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2037	HHDT	Aggregated	65	DSL	732047.11	0.018627	0.021205	0.12842	1.68569	0.00952	1007.705	0.033203	0.03177	0.1584





Los Angeles (SC)	2040	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	
Los Angeles (SC)	2041	HHDT	Aggregated	65	DSL	758121.01	0.018542	0.021108	0.12804	1.65384	0.00923	976.9801	0.033057	0.03163	0.15357
Los Angeles (SC)	2041	LDA	Aggregated	65	DSL	54805.147	0.002085	0.002373	0.06738	0.00618	0.00158	166.8544	0.00062	0.00059	0.02623
Los Angeles (SC)	2041	LDT1	Aggregated	65	DSL	88.392238	0.009981	0.011363	0.1248	0.09399	0.00311	328.5822	0.005313	0.00508	0.05165
Los Angeles (SC)	2041	LDT2	Aggregated	65	DSL	17477.009	0.00678	0.007719	0.06991	0.02025	0.00209	220.7488	0.003271	0.00313	0.0347
Los Angeles (SC)	2041	LHDT1	Aggregated	65	DSL	592470.46	0.02051	0.023349	0.1006	0.08074	0.00365	386.5815	0.004672	0.00447	0.06077
Los Angeles (SC)	2041	LHDT2	Aggregated	65	DSL	231548.21	0.021777	0.024791	0.11117	0.12956	0.00391	414.0511	0.010266	0.00982	0.06508
Los Angeles (SC)	2041	MDV	Aggregated	65	DSL	36667.213	0.002407	0.00274	0.07628	0.00708	0.00275	290.3687	0.00077	0.00074	0.04564
Los Angeles (SC)	2041	MH	Aggregated	65	DSL	6564.1001	0.021716	0.024723	0.07375	1.52331	0.00694	733.6185	0.023651	0.02263	0.11531
Los Angeles (SC)	2041	MHDT	Aggregated	65	DSL	405943.97	0.008096	0.009217	0.04993	0.90519	0.00704	744.76	0.015312	0.01465	0.11707
Los Angeles (SC)	2041	OBUS	Aggregated	65	DSL	28440.043	0.012679	0.014434	0.08429	1.27007	0.00918	971.7266	0.023039	0.02204	0.15274
Los Angeles (SC)	2041	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2041	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2042	HHDT	Aggregated	65	DSL	764908.39	0.018533	0.021099	0.12803	1.64903	0.00918	971.7325	0.033058	0.03163	0.15274
Los Angeles (SC)	2042	LDA	Aggregated	65	DSL	54920.005	0.002062	0.002348	0.06717	0.00604	0.00157	166.4691	0.0006	0.00057	0.02617
Los Angeles (SC)	2042	LDT1	Aggregated	65	DSL	88.248133	0.009397	0.010698	0.11516	0.08012	0.00308	325.6425	0.004953	0.00474	0.05119
Los Angeles (SC)	2042	LDT2	Aggregated	65	DSL	17539.729	0.006783	0.007722	0.07002	0.02023	0.00208	220.1014	0.003274	0.00313	0.0346
Los Angeles (SC)	2042	LHDT1	Aggregated	65	DSL	596535.56	0.020297	0.023106	0.09883	0.07085	0.00364	385.2398	0.004578	0.00438	0.06055
Los Angeles (SC)	2042	LHDT2	Aggregated	65	DSL	233263.5	0.021588	0.024576	0.10993	0.12071	0.0039	412.6573	0.010283	0.00984	0.06486
Los Angeles (SC)	2042	MDV	Aggregated	65	DSL	36840.569	0.002376	0.002705	0.07606	0.0069	0.00273	289.3068	0.00074	0.00071	0.04548
Los Angeles (SC)	2042	MH	Aggregated	65	DSL	6615.2781	0.021291	0.024239	0.07103	1.50006	0.00691	730.7703	0.022026	0.02107	0.11487
Los Angeles (SC)	2042	MHDT	Aggregated	65	DSL	409993.08	0.008089	0.009209	0.04991	0.90203	0.007	741.2739	0.0153	0.01464	0.11652
Los Angeles (SC)	2042	OBUS	Aggregated	65	DSL	28771.552	0.012686	0.014443	0.08432	1.27094	0.00915	968.1321	0.023094	0.02209	0.15218
Los Angeles (SC)	2042	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2042	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2043	HHDT	Aggregated	65	DSL	771710.33	0.018525	0.021089	0.12802	1.64472	0.00914	967.1268	0.033063	0.03163	0.15202
Los Angeles (SC)	2043	LDA	Aggregated	65	DSL	55014.397	0.002045	0.002328	0.06701	0.00591	0.00157	166.1638	0.000584	0.00056	0.02612
Los Angeles (SC)	2043	LDT1	Aggregated	65	DSL	88.078332	0.008841	0.010065	0.10598	0.06694	0.00305	322.9272	0.00461	0.00441	0.05076
Los Angeles (SC)	2043	LDT2	Aggregated	65	DSL	17595.299	0.006785	0.007725	0.07013	0.02022	0.00208	219.5858	0.003278	0.00314	0.03452
Los Angeles (SC)	2043	LHDT1	Aggregated	65	DSL	600184.46	0.020145	0.022934	0.09758	0.0636	0.00363	384.0607	0.004501	0.00431	0.06037
Los Angeles (SC)	2043	LHDT2	Aggregated	65	DSL	234875.72	0.021461	0.024432	0.10916	0.1145	0.00389	411.4613	0.010305	0.00986	0.06468
Los Angeles (SC)	2043	MDV	Aggregated	65	DSL	36989.253	0.002351	0.002677	0.07588	0.00677	0.00273	288.4022	0.000715	0.00068	0.04533
Los Angeles (SC)	2043	MH	Aggregated	65	DSL	6662.2306	0.020901	0.023795	0.06847	1.4789	0.00688	728.0934	0.02048	0.01959	0.11445
Los Angeles (SC)	2043	MHDT	Aggregated	65	DSL	413994.41	0.008084	0.009204	0.04989	0.89925	0.00697	738.0798	0.015292	0.01463	0.11602
Los Angeles (SC)	2043	OBUS	Aggregated	65	DSL	29090.613	0.012706	0.014465	0.08445	1.27363	0.00912	965.2787	0.023189	0.02219	0.15173
Los Angeles (SC)	2043	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2043	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2044	HHDT	Aggregated	65	DSL	778512.61	0.018515	0.021078	0.12801	1.64048	0.0091	963.1626	0.033069	0.03164	0.1514
Los Angeles (SC)	2044	LDA	Aggregated	65	DSL	55094.243	0.002031	0.002313	0.06689	0.0058	0.00157	165.925	0.000572	0.00055	0.02608
Los Angeles (SC)	2044	LDT1	Aggregated	65	DSL	88.046675	0.008473	0.009646	0.09993	0.05819	0.00303	320.857	0.004384	0.00419	0.05043
Los Angeles (SC)	2044	LDT2	Aggregated	65	DSL	17644.6	0.006788	0.007727	0.07023	0.02021	0.00207	219.1717	0.003282	0.00314	0.03445
Los Angeles (SC)	2044	LHDT1	Aggregated	65	DSL	603352.04	0.019992	0.02276	0.09633	0.05642	0.00362	382.9953	0.00443	0.00424	0.0602
Los Angeles (SC)	2044	LHDT2	Aggregated	65	DSL	236182.58	0.021196	0.024131	0.10751	0.10302	0.00388	410.3079	0.010306	0.00986	0.06449
Los Angeles (SC)	2044	MDV	Aggregated	65	DSL	37119.67	0.002331	0.002653	0.07574	0.00666	0.00272	287.6372	0.000694	0.00066	0.04521
Los Angeles (SC)	2044	MH	Aggregated	65	DSL	6705.646	0.020559	0.023405	0.06609	1.46027	0.00686	725.6125	0.019026	0.0182	0.11406
Los Angeles (SC)	2044	MHDT	Aggregated	65	DSL	417961.4	0.008081	0.0092	0.04988	0.89705	0.00695	735.2263	0.01529	0.01463	0.11557

Los Angeles (SC)	2044	OBUS	Aggregated	65	DSL	29414.862	0.012724	0.014486	0.08456	1.27619	0.0091	962.8867	0.023277	0.02227	0.15135
Los Angeles (SC)	2044	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2044	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2045	HHDT	Aggregated	65	DSL	785323.48	0.018507	0.021069	0.12801	1.63675	0.00907	959.72	0.033076	0.03164	0.15085
Los Angeles (SC)	2045	LDA	Aggregated	65	DSL	55167.715	0.002021	0.002301	0.0668	0.00572	0.00157	165.7404	0.000562	0.00054	0.02605
Los Angeles (SC)	2045	LDT1	Aggregated	65	DSL	88.108307	0.008223	0.009362	0.09583	0.05222	0.00302	319.2642	0.004231	0.00405	0.05018
Los Angeles (SC)	2045	LDT2	Aggregated	65	DSL	17690.411	0.00679	0.00773	0.07032	0.02021	0.00207	218.8393	0.003285	0.00314	0.0344
Los Angeles (SC)	2045	LHDT1	Aggregated	65	DSL	606338.79	0.019872	0.022623	0.09538	0.05068	0.00361	382.0737	0.004374	0.00418	0.06006
Los Angeles (SC)	2045	LHDT2	Aggregated	65	DSL	237448.68	0.020985	0.02389	0.1062	0.09375	0.00387	409.3231	0.010311	0.00987	0.06434
Los Angeles (SC)	2045	MDV	Aggregated	65	DSL	37237.273	0.002314	0.002634	0.07564	0.00658	0.00271	286.9932	0.000677	0.00065	0.04511
Los Angeles (SC)	2045	MH	Aggregated	65	DSL	6745.6084	0.020217	0.023016	0.06382	1.44222	0.00684	723.2785	0.017672	0.01691	0.11369
Los Angeles (SC)	2045	MHDT	Aggregated	65	DSL	421898.75	0.00808	0.009198	0.04988	0.89562	0.00692	732.7181	0.015294	0.01463	0.11517
Los Angeles (SC)	2045	OBUS	Aggregated	65	DSL	29722.921	0.01274	0.014503	0.08465	1.27791	0.00908	960.9101	0.023347	0.02234	0.15104
Los Angeles (SC)	2045	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2045	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2046	HHDT	Aggregated	65	DSL	793447.59	0.018499	0.02106	0.128	1.63345	0.00904	956.885	0.033079	0.03165	0.15041
Los Angeles (SC)	2046	LDA	Aggregated	65	DSL	55223.537	0.002014	0.002293	0.06675	0.00566	0.00157	165.5992	0.000555	0.00053	0.02603
Los Angeles (SC)	2046	LDT1	Aggregated	65	DSL	88.15635	0.008012	0.009122	0.09238	0.04719	0.00301	317.8774	0.004102	0.00393	0.04997
Los Angeles (SC)	2046	LDT2	Aggregated	65	DSL	17729.631	0.006792	0.007732	0.0704	0.0202	0.00207	218.5715	0.003288	0.00315	0.03436
Los Angeles (SC)	2046	LHDT1	Aggregated	65	DSL	608912.54	0.019762	0.022498	0.09452	0.04546	0.0036	381.2493	0.004325	0.00414	0.05993
Los Angeles (SC)	2046	LHDT2	Aggregated	65	DSL	238563.13	0.020746	0.023618	0.10472	0.0835	0.00386	408.4383	0.010311	0.00987	0.0642
Los Angeles (SC)	2046	MDV	Aggregated	65	DSL	37336.062	0.0023	0.002619	0.07556	0.0065	0.00271	286.4557	0.000662	0.00063	0.04503
Los Angeles (SC)	2046	MH	Aggregated	65	DSL	6783.5008	0.019964	0.022728	0.06195	1.42838	0.00682	721.1625	0.016512	0.0158	0.11336
Los Angeles (SC)	2046	MHDT	Aggregated	65	DSL	426571.84	0.008079	0.009197	0.04988	0.89443	0.0069	730.448	0.015298	0.01464	0.11482
Los Angeles (SC)	2046	OBUS	Aggregated	65	DSL	30045.43	0.012748	0.014513	0.0847	1.27858	0.00906	959.0984	0.023394	0.02238	0.15076
Los Angeles (SC)	2046	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2046	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2047	HHDT	Aggregated	65	DSL	801592.84	0.018492	0.021051	0.12799	1.63037	0.00902	954.4307	0.033081	0.03165	0.15002
Los Angeles (SC)	2047	LDA	Aggregated	65	DSL	55276.372	0.002007	0.002285	0.0667	0.00559	0.00156	165.4896	0.000549	0.00053	0.02601
Los Angeles (SC)	2047	LDT1	Aggregated	65	DSL	87.814346	0.007448	0.008479	0.08302	0.03383	0.00298	315.5208	0.003753	0.00359	0.0496
Los Angeles (SC)	2047	LDT2	Aggregated	65	DSL	17766.439	0.006794	0.007735	0.07048	0.0202	0.00206	218.3491	0.003291	0.00315	0.03432
Los Angeles (SC)	2047	LHDT1	Aggregated	65	DSL	611280.24	0.019689	0.022414	0.09392	0.04177	0.0036	380.5282	0.004285	0.0041	0.05981
Los Angeles (SC)	2047	LHDT2	Aggregated	65	DSL	239664.94	0.020611	0.023464	0.10364	0.07729	0.00385	407.6962	0.010317	0.00987	0.06408
Los Angeles (SC)	2047	MDV	Aggregated	65	DSL	37427.77	0.002289	0.002606	0.0755	0.00644	0.0027	286.0124	0.000651	0.00062	0.04496
Los Angeles (SC)	2047	MH	Aggregated	65	DSL	6820.6247	0.019754	0.022489	0.06038	1.4168	0.0068	719.2418	0.015538	0.01487	0.11305
Los Angeles (SC)	2047	MHDT	Aggregated	65	DSL	431217.19	0.008078	0.009196	0.04988	0.89338	0.00688	728.3912	0.015303	0.01464	0.11449
Los Angeles (SC)	2047	OBUS	Aggregated	65	DSL	30374.523	0.012755	0.014521	0.08474	1.27896	0.00905	957.5145	0.023433	0.02242	0.15051
Los Angeles (SC)	2047	SBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2047	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2048	HHDT	Aggregated	65	DSL	809768.02	0.018488	0.021047	0.12798	1.62835	0.009	952.2986	0.03308	0.03165	0.14969
Los Angeles (SC)	2048	LDA	Aggregated	65	DSL	55317.675	0.002002	0.00228	0.06666	0.00553	0.00156	165.4052	0.000545	0.00052	0.026
Los Angeles (SC)	2048	LDT1	Aggregated	65	DSL	87.798942	0.007224	0.008224	0.07934	0.02849	0.00297	314.2752	0.003616	0.00346	0.0494
Los Angeles (SC)	2048	LDT2	Aggregated	65	DSL	17798.11	0.006796	0.007736	0.07055	0.02019	0.00206	218.1615	0.003293	0.00315	0.03429
Los Angeles (SC)	2048	LHDT1	Aggregated	65	DSL	613249.71	0.019615	0.022331	0.09333	0.03819	0.00359	379.8819	0.004247	0.00406	0.05971
Los Angeles (SC)	2048	LHDT2	Aggregated	65	DSL	240569.79	0.020438	0.023268	0.10225	0.06972	0.00385	407.0038	0.010314	0.00987	0.06398
Los Angeles (SC)	2048	MDV	Aggregated	65	DSL	37506.333	0.00228	0.002595	0.07545	0.00637	0.0027	285.6442	0.00064	0.00061	0.0449



**Alexan SP Residential Development Draft EIR (Appendix A3)**

**EMFAC2017 WebDataBase Output file**

**Los Angeles South Coast Vehicle Population Data**

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	ROG_RUNEX	ROG_IDLEX	ROG_STREX
Los Angeles (SC)	2023	HHDT	Aggregated	Aggregated	GAS	52.868146	5904.51091	1057.7859	0.4720415	0	0.0015683
Los Angeles (SC)	2023	HHDT	Aggregated	Aggregated	DSL	57613.017	6949256.2	573406.49	0.019784	4.6042209	0
Los Angeles (SC)	2023	HHDT	Aggregated	Aggregated	NG	2795.8173	113851.643	10903.687	0.3105878	0.059875	0
Los Angeles (SC)	2023	LDA	Aggregated	Aggregated	GAS	3986929.1	149418106	18815398	0.0104333	0	0.2104625
Los Angeles (SC)	2023	LDA	Aggregated	Aggregated	DSL	36740.629	1426244.82	174171.3	0.018777	0	0
Los Angeles (SC)	2023	LDA	Aggregated	Aggregated	ELEC	91678.538	3806341.94	457107.93	0	0	0
Los Angeles (SC)	2023	LDT1	Aggregated	Aggregated	GAS	472375.67	17372474.6	2187811.2	0.0298518	0	0.3212965
Los Angeles (SC)	2023	LDT1	Aggregated	Aggregated	DSL	252.41187	6132.92196	894.90598	0.1826007	0	0
Los Angeles (SC)	2023	LDT1	Aggregated	Aggregated	ELEC	4635.2487	196781.624	23233.685	0	0	0
Los Angeles (SC)	2023	LDT2	Aggregated	Aggregated	GAS	1397479.3	52162943.4	6567821.3	0.0183374	0	0.2923773
Los Angeles (SC)	2023	LDT2	Aggregated	Aggregated	DSL	9765.2302	404272.137	48008.058	0.022513	0	0
Los Angeles (SC)	2023	LDT2	Aggregated	Aggregated	ELEC	18283.628	584568.842	92279.452	0	0	0
Los Angeles (SC)	2023	LHDT1	Aggregated	Aggregated	GAS	105195.93	3800052.41	1567262.6	0.0317679	0.423479	0.112138
Los Angeles (SC)	2023	LHDT1	Aggregated	Aggregated	DSL	68776.357	2893383.11	865120.05	0.0614417	0.1097597	0
Los Angeles (SC)	2023	LHDT2	Aggregated	Aggregated	GAS	17937.989	625878.524	267249.3	0.0211978	0.4251469	0.1150779
Los Angeles (SC)	2023	LHDT2	Aggregated	Aggregated	DSL	27873.775	1126544.03	350617.03	0.0608606	0.1097597	0
Los Angeles (SC)	2023	MCY	Aggregated	Aggregated	GAS	183955.37	1265084.64	367910.74	2.5957164	0	1.8021736
Los Angeles (SC)	2023	MDV	Aggregated	Aggregated	GAS	931795.97	32264362.1	4326648	0.0247481	0	0.3713853
Los Angeles (SC)	2023	MDV	Aggregated	Aggregated	DSL	21297.507	823486.054	104465.34	0.0145728	0	0
Los Angeles (SC)	2023	MDV	Aggregated	Aggregated	ELEC	10378.926	342100.126	52903.33	0	0	0
Los Angeles (SC)	2023	MH	Aggregated	Aggregated	GAS	18786.355	191391.548	1879.387	0.0447898	0	0.1209132
Los Angeles (SC)	2023	MH	Aggregated	Aggregated	DSL	6166.7976	64319.4793	616.67976	0.0645308	0	0
Los Angeles (SC)	2023	MHDT	Aggregated	Aggregated	GAS	14623.108	797300.084	292579.15	0.0542902	1.0051305	0.2029533
Los Angeles (SC)	2023	MHDT	Aggregated	Aggregated	DSL	64520.19	4246866.5	635166.64	0.0079226	0.0703788	0
Los Angeles (SC)	2023	OBUS	Aggregated	Aggregated	GAS	3965.9552	159342.808	79350.831	0.0557275	0.7442649	0.1546471
Los Angeles (SC)	2023	OBUS	Aggregated	Aggregated	DSL	3071.4533	241091.735	29880.372	0.0111139	0.8947138	0
Los Angeles (SC)	2023	SBUS	Aggregated	Aggregated	GAS	1481.565	58916.2147	5926.2602	0.0488937	10.61523	0.3184968
Los Angeles (SC)	2023	SBUS	Aggregated	Aggregated	DSL	3497.0784	110638.369	40355.8	0.1076404	0.2810165	0
Los Angeles (SC)	2023	UBUS	Aggregated	Aggregated	GAS	463.32299	33183.9659	1853.292	0.0197322	0	0.4627467
Los Angeles (SC)	2023	UBUS	Aggregated	Aggregated	DSL	10.1389	1181.23011	40.5556	0.0011593	0	0
Los Angeles (SC)	2023	UBUS	Aggregated	Aggregated	ELEC	12	1070.40331	48	0	0	0
Los Angeles (SC)	2023	UBUS	Aggregated	Aggregated	NG	4153.8408	439713.485	16615.363	0.0905348	0	0
<b>Total Vehicle Population:</b>						<b>7,566,565</b>					

ROG_HOTSC	ROG_RUNLC	ROG_RESTLC	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSO	TOG_RUNLC	TOG_RESTLC	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX
0.1267051	0.6597345	0.0462079	0.0653095	0.6888018	0	0.0017171	0.1267051	0.6597345	0.0462079	0.0653095	32.570209	0	5.2816631
0	0	0	0	0.0225226	5.241555	0	0	0	0	0	0.2172206	67.201232	0
0	0	0	0	5.3306473	1.3434872	0	0	0	0	0	13.548792	20.364809	0
0.097942	0.2096253	0.2274498	0.2362833	0.0152196	0	0.2304291	0.097942	0.2096253	0.2274498	0.2362833	0.6866092	0	2.0977977
0	0	0	0	0.0213764	0	0	0	0	0	0	0.2811583	0	0
0.004888	0	0.0075002	0.0224074	0	0	0	0.004888	0	0.0075002	0.0224074	0	0	0
0.1850677	0.6503251	0.4655494	0.5444003	0.0435482	0	0.3517785	0.1850677	0.6503251	0.4655494	0.5444003	1.3106666	0	2.206069
0	0	0	0	0.2078787	0	0	0	0	0	0	1.0746805	0	0
0.004888	0	0.0075002	0.0224074	0	0	0	0.004888	0	0.0075002	0.0224074	0	0	0
0.1184948	0.3981981	0.3420797	0.3336875	0.0267531	0	0.320116	0.1184948	0.3981981	0.3420797	0.3336875	0.9539169	0	2.6017314
0	0	0	0	0.0256296	0	0	0	0	0	0	0.1930751	0	0
0.004888	0	0.0075002	0.0224074	0	0	0	0.004888	0	0.0075002	0.0224074	0	0	0
0.1161862	0.798777	0.0336444	0.0543763	0.0463557	0.6179395	0.1227769	0.1161862	0.798777	0.0336444	0.0543763	0.7654656	3.7532173	1.6788405
0	0	0	0	0.0699473	0.1249541	0	0	0	0	0	0.3060369	0.9097451	0
0.115058	0.7285108	0.031271	0.0493313	0.0309318	0.6203734	0.1259959	0.115058	0.7285108	0.031271	0.0493313	0.5364241	3.7601286	1.6624364
0	0	0	0	0.0692857	0.1249541	0	0	0	0	0	0.3019327	0.9097451	0
0.6362594	1.884499	1.3060708	2.1476171	3.23302	0	1.9618647	0.6362594	1.884499	1.3060708	2.1476171	18.860918	0	8.5427308
0.1376719	0.425777	0.4111326	0.3840631	0.0360305	0	0.406616	0.1376719	0.425777	0.4111326	0.3840631	1.1187919	0	3.0191653
0	0	0	0	0.0165902	0	0	0	0	0	0	0.2711278	0	0
0.004888	0	0.0075002	0.0224074	0	0	0	0.004888	0	0.0075002	0.0224074	0	0	0
0.0686858	1.7059596	0.0417315	0.0972237	0.0653572	0	0.1323847	0.0686858	1.7059596	0.0417315	0.0972237	1.2132359	0	2.7010976
0	0	0	0	0.0734641	0	0	0	0	0	0	0.2536482	0	0
0.0827975	0.4355809	0.0260205	0.0395071	0.0792202	1.4666841	0.2222083	0.0827975	0.4355809	0.0260205	0.0395071	1.3648569	14.38372	4.3582444
0	0	0	0	0.0090193	0.0801209	0	0	0	0	0	0.0755529	2.5213015	0
0.0306605	0.3678905	0.0261777	0.0506712	0.0813175	1.0860297	0.1693191	0.0306605	0.3678905	0.0261777	0.0506712	1.364894	5.7625098	3.2233612
0	0	0	0	0.0126524	1.0185636	0	0	0	0	0	0.1192105	14.288763	0
0.070086	0.434635	0.0174778	0.0321522	0.0713455	15.489719	0.3487139	0.070086	0.434635	0.0174778	0.0321522	1.0385336	82.081251	7.5394891
0	0	0	0	0.1225404	0.3199159	0	0	0	0	0	0.3171184	6.8010966	0
0.0742267	0.4713731	0.0173794	0.0218987	0.0287932	0	0.5066494	0.0742267	0.4713731	0.0173794	0.0218987	0.3531277	0	7.149494
0	0	0	0	0.0828045	0	0	0	0	0	0	0.1380373	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	6.4464311	0	0	0	0	0	0	49.056471	0	0

NOx_RUNEX	NOx_IDLEX	NOx_STREX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	PM10_RUNE	PM10_IDLEX	PM10_STREX	PM10_PMTV	PM10_PMBV	PM2_5_RUN	PM2_5_IDLE	PM2_5_STRI
3.8486845	0	0.6002106	2037.4239	0	46.988586	0.0012712	0	0.0007478	0.02	0.06174	0.0011688	0	0.0006876
2.707637	57.304971	2.3978612	1365.8644	11243.413	0	0.0187258	0.0304967	0	0.0356001	0.0610542	0.0179157	0.0291775	0
2.8212388	22.752134	0	3359.9821	4009.7531	0	0.0061727	0.0398974	0	0.036	0.06174	0.0059057	0.0381714	0
0.0363387	0	0.1762394	269.43991	0	53.37874	0.0016845	0	0.0018122	0.008	0.03675	0.0015488	0	0.0016663
0.0647416	0	0	209.56177	0	0	0.0083456	0	0	0.008	0.03675	0.0079846	0	0
0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0
0.1053621	0	0.2388508	312.85464	0	62.100757	0.0024752	0	0.0024666	0.008	0.03675	0.0022759	0	0.002268
0.9875566	0	0	461.03311	0	0	0.1357518	0	0	0.008	0.03675	0.1298792	0	0
0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0
0.0758112	0	0.2593997	332.57915	0	67.106666	0.0018058	0	0.0018481	0.008	0.03675	0.0016604	0	0.0016993
0.0454151	0	0	284.84095	0	0	0.0059066	0	0	0.008	0.03675	0.0056511	0	0
0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0
0.1825114	0.0369678	0.4891643	801.787	119.66159	18.712064	0.0013455	0	0.0004162	0.008	0.07644	0.0012371	0	0.0003827
1.0345584	1.7625949	0	457.53793	128.66409	0	0.0120862	0.0277128	0	0.012	0.07644	0.0115634	0.026514	0
0.1832372	0.0370861	0.504559	920.09306	138.18857	21.305237	0.0012212	0	0.0003515	0.008	0.08918	0.0011229	0	0.0003232
0.9978902	1.7830788	0	506.26767	207.1181	0	0.0142965	0.0282813	0	0.012	0.08918	0.013678	0.0270578	0
1.1309028	0	0.2636946	223.64968	0	59.207707	0.0024798	0	0.0031545	0.004	0.01176	0.002316	0	0.0029646
0.0992283	0	0.3202875	408.96995	0	82.738205	0.0018977	0	0.001998	0.008	0.03675	0.0017451	0	0.0018373
0.0411069	0	0	367.98445	0	0	0.0047834	0	0	0.008	0.03675	0.0045765	0	0
0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0
0.2911923	0	0.3290884	1650.508	0	25.017692	0.0014055	0	0.0003549	0.012	0.13034	0.0012923	0	0.0003263
3.2715493	0	0	953.66624	0	0	0.068592	0	0	0.016	0.13034	0.0656247	0	0
0.3882813	0.089421	0.3600666	1656.2728	539.13904	38.23287	0.0011073	0	0.000427	0.012	0.13034	0.0010182	0	0.0003926
1.2143651	5.0387888	2.1454172	913.18534	807.48588	0	0.0070728	0.0046918	0	0.012	0.13034	0.0067668	0.0044889	0
0.4362003	0.0649258	0.3203441	1676.61	375.50696	26.189048	0.0009963	0	0.0002753	0.012	0.13034	0.000916	0	0.0002532
1.6452302	12.358405	2.2092926	1143.6055	2721.7363	0	0.0111126	0.0042028	0	0.012	0.13034	0.0106319	0.004021	0
0.3842747	0.9247315	0.5969796	858.35243	2563.6235	46.638361	0.0011399	0	0.0004705	0.008	0.7448002	0.0010481	0	0.0004326
6.506548	39.728697	1.0073537	1207.2126	3604.9279	0	0.037856	0.0474633	0	0.012	0.7448002	0.0362184	0.0454101	0
0.2731504	0	0.8097461	1971.4937	0	84.305584	0.0014384	0	0.0005664	0.0113413	0.1235617	0.0013226	0	0.0005208
0.8323917	0	0	1797.1178	0	0	0.0061374	0	0	0.036	0.06174	0.0058719	0	0
0	0	0	0	0	0	0	0	0	0.012	0.1303401	0	0	0
0.4830237	0	0	1994.5861	0	0	0.0033401	0	0	0.0334626	0.0687295	0.0031956	0	0

PM2_5_PMT	PM2_5_PME	SOx_RUNEX	SOx_IDLEX	SOx_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.005	0.02646	0.020162	0	0.000465	0.1435097	0	0.0153547
0.0089	0.0261661	0.012904	0.1062222	0	0.2146949	1.7673079	0
0.009	0.02646	0	0	0	0.6849543	0.8174144	0
0.002	0.01575	0.0026663	0	0.0005282	0.0043123	0	0.024674
0.002	0.01575	0.0019811	0	0	0.0329402	0	0
0.002	0.01575	0	0	0	0	0	0
0.002	0.01575	0.003096	0	0.0006145	0.0079945	0	0.0273447
0.002	0.01575	0.0043584	0	0	0.072468	0	0
0.002	0.01575	0	0	0	0	0	0
0.002	0.01575	0.0032911	0	0.0006641	0.0063836	0	0.0304076
0.002	0.01575	0.0026928	0	0	0.044773	0	0
0.002	0.01575	0	0	0	0	0	0
0.002	0.03276	0.0079343	0.0011841	0.0001852	0.0111964	0.0031824	0.0401596
0.003	0.03276	0.0043254	0.0012163	0	0.0719186	0.0202242	0
0.002	0.03822	0.0091051	0.0013675	0.0002108	0.0120001	0.0030998	0.0401877
0.003	0.03822	0.0047861	0.001958	0	0.0795782	0.0325561	0
0.001	0.00504	0.0022132	0	0.0005859	0.065393	0	0.0150617
0.002	0.01575	0.0040471	0	0.0008188	0.0079228	0	0.0332333
0.002	0.01575	0.0034788	0	0	0.057842	0	0
0.002	0.01575	0	0	0	0	0	0
0.003	0.05586	0.0163331	0	0.0002476	0.0199369	0	0.0369478
0.004	0.05586	0.0090156	0	0	0.1499031	0	0
0.003	0.05586	0.0163902	0.0053352	0.0003783	0.0203065	0.0078759	0.0293041
0.003	0.05586	0.0086273	0.0076287	0	0.14354	0.1269255	0
0.003	0.05586	0.0165914	0.0037159	0.0002592	0.021614	0.0055221	0.0250441
0.003	0.05586	0.0108042	0.0257136	0	0.1797589	0.427819	0
0.002	0.3192001	0.0084941	0.0253691	0.0004615	0.022563	0.0870184	0.054779
0.003	0.3192001	0.0114051	0.0340576	0	0.189757	0.5666445	0
0.0028353	0.052955	0.0195095	0	0.0008343	0.022808	0	0.0702831
0.009	0.02646	0.0169892	0	0	0.2824819	0	0
0.003	0.05586	0	0	0	0	0	0
0.0083656	0.0294555	0	0	0	0.4066094	0	0



# Control Pathway

AERMOD

## Dispersion Options

<b>Titles</b> C:\Lakes\AERMOD View\Alexan_ProjectArea_RCZ\Alexan_ProjectArea_RCZ.i	
<b>Dispersion Options</b> <input checked="" type="checkbox"/> Regulatory Default <input type="checkbox"/> Non-Default Options	<b>Dispersion Coefficient</b> Urban      Population: Name (Optional): Roughness Length:
	<b>Output Type</b> <input checked="" type="checkbox"/> Concentration <input type="checkbox"/> Total Deposition (Dry & Wet) <input type="checkbox"/> Dry Deposition <input type="checkbox"/> Wet Deposition
	<b>Plume Depletion</b> <input type="checkbox"/> Dry Removal <input type="checkbox"/> Wet Removal
	<b>Output Warnings</b> <input type="checkbox"/> No Output Warnings <input type="checkbox"/> Non-fatal Warnings for Non-sequential Met Data

## Pollutant / Averaging Time / Terrain Options

<b>Pollutant Type</b> PM10	<b>Exponential Decay</b> <input type="checkbox"/> Half-life of 4 hrs will be used
<b>Averaging Time Options</b> Hours <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 12 <input type="checkbox"/> 24 <input type="checkbox"/> Month <input checked="" type="checkbox"/> Period <input type="checkbox"/> Annual	<b>Terrain Height Options</b> <input type="checkbox"/> Flat <input checked="" type="checkbox"/> Elevated      SO: Meters RE: Meters TG: Meters
<b>Flagpole Receptors</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Default Height = 0.00 m	

## Optional Files



Re-Start File



Init File



Multi-Year Analyses



Event Input File



Error Listing File

### Detailed Error Listing File

Filename: Alexan\_ProjectArea\_RCZ\_v2.err

# Meteorology Pathway

AERMOD

## Met Input Data

### Surface Met Data

Filename: T:\CASE\Env\13819\_Monrovia\_TrammelCrowe\AGN\HRA\SCAQMD\_MetData\AZUS\_V9\_ADJU\AZUS\_v9.SI  
 Format Type: Default AERMET format

### Profile Met Data

Filename: T:\CASE\Env\13819\_Monrovia\_TrammelCrowe\AGN\HRA\SCAQMD\_MetData\AZUS\_V9\_ADJU\AZUS\_v9.P  
 Format Type: Default AERMET format

### Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

### Wind Direction

Rotation Adjustment [deg]:

### Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 182.00 [m]

### Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2012			
Upper Air		2012			
On-Site		2012			

## Data Period

### Data Period to Process

Start Date: 1/1/2012 Start Hour: 1 End Date: 12/31/2016 End Hour: 24

## Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

# Source Pathway - Source Inputs

AERMOD

## Polygon Area Sources

Source Type: AREA POLY

Source: PAREA1 (I-210)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m <sup>2</sup> )]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
142.58	3.28	1.98E-8		8	406639.35	3777858.98
		1.98E-8			406623.02	3777814.44
		1.98E-8			407144.12	3777616.98
		1.98E-8			407233.20	3777606.59
		1.98E-8			407637.02	3777600.65
		1.98E-8			407637.02	3777648.16
		1.98E-8			407230.23	3777658.55
		1.98E-8			407158.97	3777664.49

# Receptor Pathway

AERMOD

## Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)  
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

## Discrete Receptors

### Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	407307.69	3777427.61	FENCEGRD	132.89	
2	407302.96	3777429.21	FENCEGRD	132.82	
3	407298.23	3777430.82	FENCEGRD	132.98	
4	407293.50	3777432.42	FENCEGRD	132.94	
5	407288.77	3777434.02	FENCEGRD	132.61	
6	407284.04	3777435.62	FENCEGRD	132.50	
7	407279.32	3777437.22	FENCEGRD	132.53	
8	407274.59	3777438.82	FENCEGRD	132.72	
9	407269.86	3777440.42	FENCEGRD	132.90	
10	407265.13	3777442.02	FENCEGRD	133.04	
11	407260.40	3777443.62	FENCEGRD	132.94	
12	407255.67	3777445.22	FENCEGRD	132.64	
13	407250.95	3777446.82	FENCEGRD	132.58	
14	407246.22	3777448.43	FENCEGRD	132.64	
15	407241.49	3777450.03	FENCEGRD	132.61	
16	407236.76	3777451.63	FENCEGRD	132.79	
17	407232.03	3777453.23	FENCEGRD	133.12	
18	407227.30	3777454.83	FENCEGRD	132.96	
19	407222.58	3777456.43	FENCEGRD	132.63	
20	407217.85	3777458.03	FENCEGRD	132.60	
21	407213.12	3777459.63	FENCEGRD	132.83	
22	407208.39	3777461.23	FENCEGRD	133.09	
23	407203.66	3777462.83	FENCEGRD	133.35	
24	407198.93	3777464.43	FENCEGRD	133.26	
25	407194.21	3777466.03	FENCEGRD	133.02	
26	407189.48	3777467.64	FENCEGRD	132.40	
27	407184.75	3777469.24	FENCEGRD	132.15	
28	407180.02	3777470.84	FENCEGRD	132.66	
29	407175.29	3777472.44	FENCEGRD	133.08	
30	407170.56	3777474.04	FENCEGRD	133.40	

# Receptor Pathway

AERMOD

31	407165.83	3777475.64	FENCEGRD	133.23
32	407161.11	3777477.24	FENCEGRD	132.92
33	407156.38	3777478.84	FENCEGRD	132.82
34	407151.65	3777480.44	FENCEGRD	132.86
35	407146.92	3777482.04	FENCEGRD	133.12
36	407142.19	3777483.64	FENCEGRD	133.41
37	407137.46	3777485.25	FENCEGRD	133.50
38	407132.74	3777486.85	FENCEGRD	133.17
39	407128.01	3777488.45	FENCEGRD	132.75
40	407123.28	3777490.05	FENCEGRD	132.74
41	407118.55	3777491.65	FENCEGRD	132.96
42	407113.82	3777493.25	FENCEGRD	133.29
43	407109.09	3777494.85	FENCEGRD	133.63
44	407104.37	3777496.45	FENCEGRD	133.60
45	407099.64	3777498.05	FENCEGRD	133.43
46	407094.91	3777499.65	FENCEGRD	132.88
47	407090.18	3777501.25	FENCEGRD	132.54
48	407085.45	3777502.85	FENCEGRD	131.85
49	407080.72	3777504.46	FENCEGRD	130.94
50	407076.00	3777506.06	FENCEGRD	130.15
51	407071.27	3777507.66	FENCEGRD	130.94
52	407066.54	3777509.26	FENCEGRD	132.56
53	407061.81	3777510.86	FENCEGRD	133.06
54	407057.08	3777512.46	FENCEGRD	133.42
55	407052.35	3777514.06	FENCEGRD	133.65
56	407047.62	3777515.66	FENCEGRD	133.80
57	407042.90	3777517.26	FENCEGRD	133.74
58	407038.17	3777518.86	FENCEGRD	133.42
59	407033.44	3777520.46	FENCEGRD	133.13
60	407028.71	3777522.07	FENCEGRD	133.13
61	407023.98	3777523.67	FENCEGRD	133.29
62	407019.25	3777525.27	FENCEGRD	133.66
63	407014.53	3777526.87	FENCEGRD	134.01
64	407009.80	3777528.47	FENCEGRD	133.67
65	407005.07	3777530.07	FENCEGRD	133.40
66	407000.34	3777531.67	FENCEGRD	133.20
67	406995.61	3777533.27	FENCEGRD	133.30
68	406990.88	3777534.87	FENCEGRD	133.59

# Receptor Pathway

AERMOD

69	406986.16	3777536.47	FENCEGRD	133.93
70	406981.43	3777538.07	FENCEGRD	134.25
71	406976.70	3777539.67	FENCEGRD	133.78
72	406971.97	3777541.28	FENCEGRD	133.54
73	406967.24	3777542.88	FENCEGRD	133.48
74	406962.51	3777544.48	FENCEGRD	133.62
75	406957.79	3777546.08	FENCEGRD	133.92
76	406953.06	3777547.68	FENCEGRD	134.19
77	406948.33	3777549.28	FENCEGRD	134.20
78	406943.60	3777550.88	FENCEGRD	134.12
79	406938.87	3777552.48	FENCEGRD	134.15
80	406934.14	3777554.08	FENCEGRD	134.47
81	406929.41	3777555.68	FENCEGRD	134.72
82	406924.69	3777557.28	FENCEGRD	134.76
83	407310.61	3777423.56	FENCEGRD	132.89
84	407317.22	3777428.32	FENCEGRD	133.35
85	407306.08	3777422.88	FENCEGRD	132.31
86	407301.35	3777424.48	FENCEGRD	132.25
87	407296.63	3777426.08	FENCEGRD	132.39
88	407291.90	3777427.68	FENCEGRD	132.39
89	407287.17	3777429.28	FENCEGRD	132.25
90	407282.44	3777430.88	FENCEGRD	132.11
91	407277.71	3777432.48	FENCEGRD	131.97
92	407272.98	3777434.08	FENCEGRD	132.18
93	407268.26	3777435.69	FENCEGRD	132.35
94	407263.53	3777437.29	FENCEGRD	132.48
95	407258.80	3777438.89	FENCEGRD	132.44
96	407254.07	3777440.49	FENCEGRD	132.22
97	407249.34	3777442.09	FENCEGRD	132.02
98	407244.61	3777443.69	FENCEGRD	131.87
99	407239.89	3777445.29	FENCEGRD	131.31
100	407235.16	3777446.89	FENCEGRD	131.18
101	407230.43	3777448.49	FENCEGRD	131.57
102	407225.70	3777450.09	FENCEGRD	131.87
103	407220.97	3777451.69	FENCEGRD	131.87
104	407216.24	3777453.29	FENCEGRD	131.90
105	407211.52	3777454.90	FENCEGRD	132.09
106	407206.79	3777456.50	FENCEGRD	132.38

# Receptor Pathway

AERMOD

107	407202.06	3777458.10	FENCEGRD	132.65
108	407197.33	3777459.70	FENCEGRD	132.25
109	407192.60	3777461.30	FENCEGRD	131.94
110	407187.87	3777462.90	FENCEGRD	131.21
111	407183.14	3777464.50	FENCEGRD	130.85
112	407178.42	3777466.10	FENCEGRD	131.43
113	407173.69	3777467.70	FENCEGRD	131.78
114	407168.96	3777469.30	FENCEGRD	132.06
115	407164.23	3777470.90	FENCEGRD	132.33
116	407159.50	3777472.50	FENCEGRD	132.32
117	407154.77	3777474.11	FENCEGRD	132.03
118	407150.05	3777475.71	FENCEGRD	131.87
119	407145.32	3777477.31	FENCEGRD	132.12
120	407140.59	3777478.91	FENCEGRD	132.38
121	407135.86	3777480.51	FENCEGRD	132.59
122	407131.13	3777482.11	FENCEGRD	132.45
123	407126.40	3777483.71	FENCEGRD	131.97
124	407121.68	3777485.31	FENCEGRD	131.72
125	407116.95	3777486.91	FENCEGRD	131.83
126	407112.22	3777488.51	FENCEGRD	132.16
127	407107.49	3777490.11	FENCEGRD	132.47
128	407102.76	3777491.72	FENCEGRD	132.70
129	407098.03	3777493.32	FENCEGRD	132.61
130	407093.31	3777494.92	FENCEGRD	131.95
131	407088.58	3777496.52	FENCEGRD	131.67
132	407083.85	3777498.12	FENCEGRD	131.54
133	407079.12	3777499.72	FENCEGRD	130.71
134	407074.39	3777501.32	FENCEGRD	129.91
135	407069.66	3777502.92	FENCEGRD	131.37
136	407064.94	3777504.52	FENCEGRD	132.42
137	407060.21	3777506.12	FENCEGRD	132.46
138	407055.48	3777507.72	FENCEGRD	132.71
139	407050.75	3777509.32	FENCEGRD	132.95
140	407046.02	3777510.93	FENCEGRD	132.90
141	407041.29	3777512.53	FENCEGRD	132.77
142	407036.56	3777514.13	FENCEGRD	132.66
143	407031.84	3777515.73	FENCEGRD	132.34
144	407027.11	3777517.33	FENCEGRD	132.05



# Receptor Pathway

AERMOD

145	407022.38	3777518.93	FENCEGRD	132.10
146	407017.65	3777520.53	FENCEGRD	132.48
147	407012.92	3777522.13	FENCEGRD	132.77
148	407008.19	3777523.73	FENCEGRD	132.83
149	407003.47	3777525.33	FENCEGRD	132.65
150	406998.74	3777526.93	FENCEGRD	132.23
151	406994.01	3777528.54	FENCEGRD	132.18
152	406989.28	3777530.14	FENCEGRD	132.38
153	406984.55	3777531.74	FENCEGRD	132.76
154	406979.82	3777533.34	FENCEGRD	133.06
155	406975.10	3777534.94	FENCEGRD	133.02
156	406970.37	3777536.54	FENCEGRD	132.82
157	406965.64	3777538.14	FENCEGRD	132.48
158	406960.91	3777539.74	FENCEGRD	132.54
159	406956.18	3777541.34	FENCEGRD	132.78
160	406951.45	3777542.94	FENCEGRD	133.16
161	406946.73	3777544.54	FENCEGRD	133.46
162	406942.00	3777546.14	FENCEGRD	133.79
163	406937.27	3777547.75	FENCEGRD	133.95
164	406932.54	3777549.35	FENCEGRD	134.38
165	406927.81	3777550.95	FENCEGRD	134.65
166	406923.08	3777552.55	FENCEGRD	134.72
167	407309.01	3777418.82	FENCEGRD	132.40
168	407313.54	3777419.50	FENCEGRD	132.88
169	407320.14	3777424.27	FENCEGRD	133.38
170	407322.22	3777428.35	FENCEGRD	133.41
171	407304.48	3777418.14	FENCEGRD	131.98
172	407299.75	3777419.74	FENCEGRD	131.92
173	407295.02	3777421.34	FENCEGRD	131.88
174	407290.29	3777422.94	FENCEGRD	131.93
175	407285.57	3777424.55	FENCEGRD	131.97
176	407280.84	3777426.15	FENCEGRD	131.95
177	407276.11	3777427.75	FENCEGRD	131.91
178	407271.38	3777429.35	FENCEGRD	131.94
179	407266.65	3777430.95	FENCEGRD	131.93
180	407261.92	3777432.55	FENCEGRD	131.91
181	407257.20	3777434.15	FENCEGRD	131.95
182	407252.47	3777435.75	FENCEGRD	131.88

# Receptor Pathway

AERMOD

183	407247.74	3777437.35	FENCEGRD	131.77
184	407243.01	3777438.95	FENCEGRD	131.35
185	407238.28	3777440.55	FENCEGRD	130.41
186	407233.55	3777442.16	FENCEGRD	129.94
187	407228.83	3777443.76	FENCEGRD	130.08
188	407224.10	3777445.36	FENCEGRD	130.68
189	407219.37	3777446.96	FENCEGRD	131.09
190	407214.64	3777448.56	FENCEGRD	131.57
191	407209.91	3777450.16	FENCEGRD	131.83
192	407205.18	3777451.76	FENCEGRD	131.89
193	407200.46	3777453.36	FENCEGRD	131.65
194	407195.73	3777454.96	FENCEGRD	130.95
195	407191.00	3777456.56	FENCEGRD	130.66
196	407186.27	3777458.16	FENCEGRD	130.34
197	407181.54	3777459.76	FENCEGRD	130.52
198	407176.81	3777461.37	FENCEGRD	130.87
199	407172.08	3777462.97	FENCEGRD	130.74
200	407167.36	3777464.57	FENCEGRD	130.77
201	407162.63	3777466.17	FENCEGRD	131.51
202	407157.90	3777467.77	FENCEGRD	131.82
203	407153.17	3777469.37	FENCEGRD	131.72
204	407148.44	3777470.97	FENCEGRD	131.60
205	407143.71	3777472.57	FENCEGRD	131.53
206	407138.99	3777474.17	FENCEGRD	131.55
207	407134.26	3777475.77	FENCEGRD	131.73
208	407129.53	3777477.37	FENCEGRD	131.76
209	407124.80	3777478.98	FENCEGRD	131.61
210	407120.07	3777480.58	FENCEGRD	131.53
211	407115.34	3777482.18	FENCEGRD	131.42
212	407110.62	3777483.78	FENCEGRD	131.38
213	407105.89	3777485.38	FENCEGRD	131.39
214	407101.16	3777486.98	FENCEGRD	131.69
215	407096.43	3777488.58	FENCEGRD	131.80
216	407091.70	3777490.18	FENCEGRD	131.57
217	407086.97	3777491.78	FENCEGRD	131.55
218	407082.25	3777493.38	FENCEGRD	131.38
219	407077.52	3777494.98	FENCEGRD	130.42
220	407072.79	3777496.58	FENCEGRD	130.41

# Receptor Pathway

AERMOD

221	407068.06	3777498.19	FENCEGRD	132.01
222	407063.33	3777499.79	FENCEGRD	132.64
223	407058.60	3777501.39	FENCEGRD	132.61
224	407053.87	3777502.99	FENCEGRD	132.49
225	407049.15	3777504.59	FENCEGRD	132.44
226	407044.42	3777506.19	FENCEGRD	131.94
227	407039.69	3777507.79	FENCEGRD	131.68
228	407034.96	3777509.39	FENCEGRD	131.90
229	407030.23	3777510.99	FENCEGRD	131.91
230	407025.50	3777512.59	FENCEGRD	131.78
231	407020.78	3777514.19	FENCEGRD	131.67
232	407016.05	3777515.79	FENCEGRD	131.65
233	407011.32	3777517.40	FENCEGRD	131.70
234	407006.59	3777519.00	FENCEGRD	131.96
235	407001.86	3777520.60	FENCEGRD	132.06
236	406997.13	3777522.20	FENCEGRD	131.96
237	406992.41	3777523.80	FENCEGRD	131.89
238	406987.68	3777525.40	FENCEGRD	131.80
239	406982.95	3777527.00	FENCEGRD	131.80
240	406978.22	3777528.60	FENCEGRD	131.99
241	406973.49	3777530.20	FENCEGRD	132.22
242	406968.76	3777531.80	FENCEGRD	132.28
243	406964.04	3777533.40	FENCEGRD	132.17
244	406959.31	3777535.01	FENCEGRD	132.12
245	406954.58	3777536.61	FENCEGRD	132.07
246	406949.85	3777538.21	FENCEGRD	132.26
247	406945.12	3777539.81	FENCEGRD	132.86
248	406940.39	3777541.41	FENCEGRD	133.57
249	406935.66	3777543.01	FENCEGRD	133.96
250	406930.94	3777544.61	FENCEGRD	134.30
251	406926.21	3777546.21	FENCEGRD	134.52
252	406921.48	3777547.81	FENCEGRD	134.67
253	407307.41	3777414.09	FENCEGRD	132.04
254	407311.93	3777414.77	FENCEGRD	132.26
255	407316.46	3777415.45	FENCEGRD	132.74
256	407323.07	3777420.21	FENCEGRD	133.38
257	407325.14	3777424.30	FENCEGRD	133.43
258	407327.22	3777428.38	FENCEGRD	133.42

# Receptor Pathway

AERMOD

259	407302.88	3777413.41	FENCEGRD	131.92
260	407298.15	3777415.01	FENCEGRD	131.89
261	407293.42	3777416.61	FENCEGRD	131.86
262	407288.69	3777418.21	FENCEGRD	131.83
263	407283.96	3777419.81	FENCEGRD	131.83
264	407279.23	3777421.41	FENCEGRD	131.86
265	407274.51	3777423.01	FENCEGRD	131.83
266	407269.78	3777424.61	FENCEGRD	131.82
267	407265.05	3777426.21	FENCEGRD	131.81
268	407260.32	3777427.81	FENCEGRD	131.78
269	407255.59	3777429.41	FENCEGRD	131.72
270	407250.86	3777431.02	FENCEGRD	131.64
271	407246.14	3777432.62	FENCEGRD	131.57
272	407241.41	3777434.22	FENCEGRD	130.98
273	407236.68	3777435.82	FENCEGRD	130.11
274	407231.95	3777437.42	FENCEGRD	129.97
275	407227.22	3777439.02	FENCEGRD	129.97
276	407222.49	3777440.62	FENCEGRD	130.43
277	407217.77	3777442.22	FENCEGRD	130.80
278	407213.04	3777443.82	FENCEGRD	131.43
279	407208.31	3777445.42	FENCEGRD	131.70
280	407203.58	3777447.02	FENCEGRD	131.65
281	407198.85	3777448.63	FENCEGRD	131.11
282	407194.12	3777450.23	FENCEGRD	130.25
283	407189.39	3777451.83	FENCEGRD	130.07
284	407184.67	3777453.43	FENCEGRD	129.90
285	407179.94	3777455.03	FENCEGRD	130.35
286	407175.21	3777456.63	FENCEGRD	130.62
287	407170.48	3777458.23	FENCEGRD	130.45
288	407165.75	3777459.83	FENCEGRD	130.72
289	407161.02	3777461.43	FENCEGRD	131.37
290	407156.30	3777463.03	FENCEGRD	131.55
291	407151.57	3777464.63	FENCEGRD	131.55
292	407146.84	3777466.23	FENCEGRD	131.50
293	407142.11	3777467.84	FENCEGRD	131.44
294	407137.38	3777469.44	FENCEGRD	131.50
295	407132.65	3777471.04	FENCEGRD	131.52
296	407127.93	3777472.64	FENCEGRD	131.45

# Receptor Pathway

AERMOD

297	407123.20	3777474.24	FENCEGRD	131.42
298	407118.47	3777475.84	FENCEGRD	131.41
299	407113.74	3777477.44	FENCEGRD	131.36
300	407109.01	3777479.04	FENCEGRD	131.30
301	407104.28	3777480.64	FENCEGRD	131.31
302	407099.56	3777482.24	FENCEGRD	131.34
303	407094.83	3777483.84	FENCEGRD	131.41
304	407090.10	3777485.45	FENCEGRD	131.50
305	407085.37	3777487.05	FENCEGRD	131.53
306	407080.64	3777488.65	FENCEGRD	131.06
307	407075.91	3777490.25	FENCEGRD	130.07
308	407071.18	3777491.85	FENCEGRD	130.69
309	407066.46	3777493.45	FENCEGRD	132.25
310	407061.73	3777495.05	FENCEGRD	132.61
311	407057.00	3777496.65	FENCEGRD	132.67
312	407052.27	3777498.25	FENCEGRD	132.32
313	407047.54	3777499.85	FENCEGRD	132.07
314	407042.81	3777501.45	FENCEGRD	131.69
315	407038.09	3777503.05	FENCEGRD	131.49
316	407033.36	3777504.66	FENCEGRD	131.59
317	407028.63	3777506.26	FENCEGRD	131.67
318	407023.90	3777507.86	FENCEGRD	131.73
319	407019.17	3777509.46	FENCEGRD	131.71
320	407014.44	3777511.06	FENCEGRD	131.71
321	407009.72	3777512.66	FENCEGRD	131.86
322	407004.99	3777514.26	FENCEGRD	131.98
323	407000.26	3777515.86	FENCEGRD	132.04
324	406995.53	3777517.46	FENCEGRD	131.83
325	406990.80	3777519.06	FENCEGRD	131.87
326	406986.07	3777520.66	FENCEGRD	131.88
327	406981.35	3777522.27	FENCEGRD	131.91
328	406976.62	3777523.87	FENCEGRD	132.10
329	406971.89	3777525.47	FENCEGRD	132.18
330	406967.16	3777527.07	FENCEGRD	132.10
331	406962.43	3777528.67	FENCEGRD	132.04
332	406957.70	3777530.27	FENCEGRD	132.07
333	406952.98	3777531.87	FENCEGRD	132.16
334	406948.25	3777533.47	FENCEGRD	132.36

# Receptor Pathway

AERMOD

335	406943.52	3777535.07	FENCEGRD	132.94
336	406938.79	3777536.67	FENCEGRD	133.70
337	406934.06	3777538.27	FENCEGRD	133.90
338	406929.33	3777539.87	FENCEGRD	134.14
339	406924.60	3777541.48	FENCEGRD	134.35
340	406919.88	3777543.08	FENCEGRD	134.49
341	407305.80	3777409.35	FENCEGRD	131.89
342	407310.33	3777410.03	FENCEGRD	131.93
343	407314.86	3777410.71	FENCEGRD	132.22
344	407319.39	3777411.39	FENCEGRD	132.84
345	407325.99	3777416.16	FENCEGRD	133.30
346	407328.07	3777420.24	FENCEGRD	133.41
347	407330.14	3777424.33	FENCEGRD	133.44
348	407332.22	3777428.41	FENCEGRD	133.45
349	407301.27	3777408.67	FENCEGRD	131.84
350	407296.54	3777410.27	FENCEGRD	131.84
351	407291.82	3777411.87	FENCEGRD	131.83
352	407287.09	3777413.47	FENCEGRD	131.79
353	407282.36	3777415.07	FENCEGRD	131.78
354	407277.63	3777416.67	FENCEGRD	131.77
355	407272.90	3777418.28	FENCEGRD	131.74
356	407268.17	3777419.88	FENCEGRD	131.72
357	407263.45	3777421.48	FENCEGRD	131.69
358	407258.72	3777423.08	FENCEGRD	131.64
359	407253.99	3777424.68	FENCEGRD	131.58
360	407249.26	3777426.28	FENCEGRD	131.47
361	407244.53	3777427.88	FENCEGRD	131.37
362	407239.80	3777429.48	FENCEGRD	130.62
363	407235.08	3777431.08	FENCEGRD	130.00
364	407230.35	3777432.68	FENCEGRD	129.99
365	407225.62	3777434.28	FENCEGRD	130.24
366	407220.89	3777435.89	FENCEGRD	130.84
367	407216.16	3777437.49	FENCEGRD	130.82
368	407211.43	3777439.09	FENCEGRD	130.84
369	407206.71	3777440.69	FENCEGRD	131.05
370	407201.98	3777442.29	FENCEGRD	131.19
371	407197.25	3777443.89	FENCEGRD	130.62
372	407192.52	3777445.49	FENCEGRD	130.06

# Receptor Pathway

AERMOD

373	407187.79	3777447.09	FENCEGRD	130.21
374	407183.06	3777448.69	FENCEGRD	130.45
375	407178.33	3777450.29	FENCEGRD	130.92
376	407173.61	3777451.89	FENCEGRD	130.78
377	407168.88	3777453.49	FENCEGRD	130.27
378	407164.15	3777455.10	FENCEGRD	130.80
379	407159.42	3777456.70	FENCEGRD	131.56
380	407154.69	3777458.30	FENCEGRD	131.54
381	407149.96	3777459.90	FENCEGRD	131.51
382	407145.24	3777461.50	FENCEGRD	131.44
383	407140.51	3777463.10	FENCEGRD	131.40
384	407135.78	3777464.70	FENCEGRD	131.46
385	407131.05	3777466.30	FENCEGRD	131.44
386	407126.32	3777467.90	FENCEGRD	131.36
387	407121.59	3777469.50	FENCEGRD	131.34
388	407116.87	3777471.10	FENCEGRD	131.33
389	407112.14	3777472.70	FENCEGRD	131.27
390	407107.41	3777474.31	FENCEGRD	131.23
391	407102.68	3777475.91	FENCEGRD	131.23
392	407097.95	3777477.51	FENCEGRD	131.26
393	407093.22	3777479.11	FENCEGRD	131.32
394	407088.50	3777480.71	FENCEGRD	131.40
395	407083.77	3777482.31	FENCEGRD	131.47
396	407079.04	3777483.91	FENCEGRD	130.83
397	407074.31	3777485.51	FENCEGRD	129.77
398	407069.58	3777487.11	FENCEGRD	130.71
399	407064.85	3777488.71	FENCEGRD	131.70
400	407060.12	3777490.31	FENCEGRD	131.91
401	407055.40	3777491.92	FENCEGRD	132.02
402	407050.67	3777493.52	FENCEGRD	131.91
403	407045.94	3777495.12	FENCEGRD	131.76
404	407041.21	3777496.72	FENCEGRD	131.54
405	407036.48	3777498.32	FENCEGRD	131.53
406	407031.75	3777499.92	FENCEGRD	131.60
407	407027.03	3777501.52	FENCEGRD	131.66
408	407022.30	3777503.12	FENCEGRD	131.72
409	407017.57	3777504.72	FENCEGRD	131.73
410	407012.84	3777506.32	FENCEGRD	131.88

# Receptor Pathway

AERMOD

411	407008.11	3777507.92	FENCEGRD	132.16
412	407003.38	3777509.52	FENCEGRD	132.67
413	406998.66	3777511.13	FENCEGRD	133.13
414	406993.93	3777512.73	FENCEGRD	132.61
415	406989.20	3777514.33	FENCEGRD	132.14
416	406984.47	3777515.93	FENCEGRD	132.08
417	406979.74	3777517.53	FENCEGRD	132.13
418	406975.01	3777519.13	FENCEGRD	132.57
419	406970.29	3777520.73	FENCEGRD	132.85
420	406965.56	3777522.33	FENCEGRD	132.98
421	406960.83	3777523.93	FENCEGRD	132.60
422	406956.10	3777525.53	FENCEGRD	132.20
423	406951.37	3777527.13	FENCEGRD	132.26
424	406946.64	3777528.74	FENCEGRD	132.46
425	406941.91	3777530.34	FENCEGRD	133.25
426	406937.19	3777531.94	FENCEGRD	133.85
427	406932.46	3777533.54	FENCEGRD	133.86
428	406927.73	3777535.14	FENCEGRD	133.99
429	406923.00	3777536.74	FENCEGRD	134.20
430	406918.27	3777538.34	FENCEGRD	134.32
431	406921.29	3777561.95	FENCEGRD	134.81
432	406921.22	3777566.80	FENCEGRD	134.83
433	406921.15	3777571.66	FENCEGRD	134.82
434	406921.08	3777576.51	FENCEGRD	134.76
435	406921.00	3777581.36	FENCEGRD	134.70
436	406920.93	3777586.22	FENCEGRD	134.65
437	406920.86	3777591.07	FENCEGRD	134.61
438	406920.79	3777595.93	FENCEGRD	134.60
439	406920.72	3777600.78	FENCEGRD	134.58
440	406920.65	3777605.64	FENCEGRD	134.55
441	406920.58	3777610.49	FENCEGRD	134.51
442	406920.50	3777615.34	FENCEGRD	134.47
443	406920.43	3777620.20	FENCEGRD	134.43
444	406920.36	3777625.05	FENCEGRD	134.42
445	406920.29	3777629.91	FENCEGRD	134.40
446	406920.22	3777634.76	FENCEGRD	134.42
447	406920.15	3777639.62	FENCEGRD	134.44
448	406920.08	3777644.47	FENCEGRD	134.45



# Receptor Pathway

AERMOD

449	406920.00	3777649.32	FENCEGRD	134.47
450	406919.93	3777654.18	FENCEGRD	134.48
451	406919.86	3777659.03	FENCEGRD	134.50
452	406919.79	3777663.89	FENCEGRD	134.51
453	406917.25	3777559.00	FENCEGRD	134.79
454	406916.22	3777566.73	FENCEGRD	134.82
455	406916.15	3777571.58	FENCEGRD	134.80
456	406916.08	3777576.44	FENCEGRD	134.74
457	406916.01	3777581.29	FENCEGRD	134.68
458	406915.93	3777586.14	FENCEGRD	134.63
459	406915.86	3777591.00	FENCEGRD	134.59
460	406915.79	3777595.85	FENCEGRD	134.58
461	406915.72	3777600.71	FENCEGRD	134.56
462	406915.65	3777605.56	FENCEGRD	134.52
463	406915.58	3777610.42	FENCEGRD	134.48
464	406915.51	3777615.27	FENCEGRD	134.44
465	406915.43	3777620.12	FENCEGRD	134.40
466	406915.36	3777624.98	FENCEGRD	134.39
467	406915.29	3777629.83	FENCEGRD	134.38
468	406915.22	3777634.69	FENCEGRD	134.39
469	406915.15	3777639.54	FENCEGRD	134.41
470	406915.08	3777644.40	FENCEGRD	134.43
471	406915.01	3777649.25	FENCEGRD	134.45
472	406914.93	3777654.10	FENCEGRD	134.47
473	406914.86	3777658.96	FENCEGRD	134.47
474	406914.79	3777663.81	FENCEGRD	134.49
475	406912.73	3777557.49	FENCEGRD	134.76
476	406917.82	3777550.50	FENCEGRD	134.70
477	406911.22	3777566.65	FENCEGRD	134.78
478	406911.15	3777571.51	FENCEGRD	134.80
479	406911.08	3777576.36	FENCEGRD	134.74
480	406911.01	3777581.22	FENCEGRD	134.68
481	406910.93	3777586.07	FENCEGRD	134.62
482	406910.86	3777590.93	FENCEGRD	134.58
483	406910.79	3777595.78	FENCEGRD	134.58
484	406910.72	3777600.63	FENCEGRD	134.58
485	406910.65	3777605.49	FENCEGRD	134.55
486	406910.58	3777610.34	FENCEGRD	134.52

# Receptor Pathway

AERMOD

487	406910.51	3777615.20	FENCEGRD	134.49
488	406910.43	3777620.05	FENCEGRD	134.46
489	406910.36	3777624.91	FENCEGRD	134.49
490	406910.29	3777629.76	FENCEGRD	134.52
491	406910.22	3777634.61	FENCEGRD	134.51
492	406910.15	3777639.47	FENCEGRD	134.47
493	406910.08	3777644.32	FENCEGRD	134.49
494	406910.01	3777649.18	FENCEGRD	134.57
495	406909.93	3777654.03	FENCEGRD	134.61
496	406909.86	3777658.89	FENCEGRD	134.60
497	406909.79	3777663.74	FENCEGRD	134.59
498	406907.57	3777557.90	FENCEGRD	134.40
499	406913.37	3777547.86	FENCEGRD	134.60
500	406906.22	3777566.58	FENCEGRD	134.69
501	406906.15	3777571.43	FENCEGRD	134.81
502	406906.08	3777576.29	FENCEGRD	134.76
503	406906.01	3777581.14	FENCEGRD	134.70
504	406905.94	3777586.00	FENCEGRD	134.63
505	406905.86	3777590.85	FENCEGRD	134.57
506	406905.79	3777595.71	FENCEGRD	134.61
507	406905.72	3777600.56	FENCEGRD	134.65
508	406905.65	3777605.41	FENCEGRD	134.63
509	406905.58	3777610.27	FENCEGRD	134.62
510	406905.51	3777615.12	FENCEGRD	134.60
511	406905.44	3777619.98	FENCEGRD	134.58
512	406905.36	3777624.83	FENCEGRD	134.66
513	406905.29	3777629.69	FENCEGRD	134.76
514	406905.22	3777634.54	FENCEGRD	134.70
515	406905.15	3777639.39	FENCEGRD	134.56
516	406905.08	3777644.25	FENCEGRD	134.58
517	406905.01	3777649.10	FENCEGRD	134.73
518	406904.94	3777653.96	FENCEGRD	134.78
519	406904.86	3777658.81	FENCEGRD	134.74
520	406904.79	3777663.67	FENCEGRD	134.71
521	406902.49	3777558.06	FENCEGRD	134.10
522	406904.88	3777550.89	FENCEGRD	133.94
523	406909.13	3777545.06	FENCEGRD	134.19
524	406901.22	3777566.51	FENCEGRD	134.56

# Receptor Pathway

AERMOD

525	406901.15	3777571.36	FENCEGRD	134.74
526	406901.08	3777576.22	FENCEGRD	134.67
527	406901.01	3777581.07	FENCEGRD	134.60
528	406900.94	3777585.92	FENCEGRD	134.56
529	406900.86	3777590.78	FENCEGRD	134.54
530	406900.79	3777595.63	FENCEGRD	134.60
531	406900.72	3777600.49	FENCEGRD	134.67
532	406900.65	3777605.34	FENCEGRD	134.68
533	406900.58	3777610.20	FENCEGRD	134.69
534	406900.51	3777615.05	FENCEGRD	134.65
535	406900.44	3777619.90	FENCEGRD	134.61
536	406900.36	3777624.76	FENCEGRD	134.69
537	406900.29	3777629.61	FENCEGRD	134.81
538	406900.22	3777634.47	FENCEGRD	134.79
539	406900.15	3777639.32	FENCEGRD	134.71
540	406900.08	3777644.18	FENCEGRD	134.72
541	406900.01	3777649.03	FENCEGRD	134.81
542	406899.94	3777653.88	FENCEGRD	134.83
543	406899.86	3777658.74	FENCEGRD	134.76
544	406899.79	3777663.59	FENCEGRD	134.71
545	406923.75	3777669.99	FENCEGRD	134.51
546	406928.74	3777674.99	FENCEGRD	134.44
547	406916.74	3777668.63	FENCEGRD	134.51
548	406920.22	3777673.53	FENCEGRD	134.54
549	406925.21	3777678.52	FENCEGRD	134.52
550	406913.09	3777671.86	FENCEGRD	134.54
551	406916.68	3777677.06	FENCEGRD	134.53
552	406921.67	3777682.06	FENCEGRD	134.58
553	406909.48	3777675.21	FENCEGRD	134.56
554	406907.13	3777669.44	FENCEGRD	134.65
555	406913.14	3777680.60	FENCEGRD	134.51
556	406918.14	3777685.59	FENCEGRD	134.54
557	406905.89	3777678.63	FENCEGRD	134.52
558	406903.45	3777672.61	FENCEGRD	134.67
559	406909.61	3777684.13	FENCEGRD	134.47
560	406914.60	3777689.13	FENCEGRD	134.52
561	406934.29	3777676.03	FENCEGRD	134.38
562	406938.75	3777674.06	FENCEGRD	134.31

# Receptor Pathway

AERMOD

563	406943.22	3777672.10	FENCEGRD	134.28
564	406947.68	3777670.14	FENCEGRD	134.27
565	406952.14	3777668.18	FENCEGRD	134.27
566	406956.60	3777666.21	FENCEGRD	134.28
567	406961.06	3777664.25	FENCEGRD	134.21
568	406965.52	3777662.29	FENCEGRD	134.08
569	406969.98	3777660.32	FENCEGRD	134.08
570	406974.45	3777658.36	FENCEGRD	134.11
571	406978.91	3777656.40	FENCEGRD	134.10
572	406983.37	3777654.44	FENCEGRD	134.08
573	406987.83	3777652.47	FENCEGRD	133.99
574	406992.29	3777650.51	FENCEGRD	133.89
575	406996.75	3777648.55	FENCEGRD	133.91
576	407001.21	3777646.58	FENCEGRD	133.90
577	407005.68	3777644.62	FENCEGRD	133.82
578	407010.14	3777642.66	FENCEGRD	133.76
579	407014.60	3777640.70	FENCEGRD	133.70
580	407019.06	3777638.73	FENCEGRD	133.71
581	407023.52	3777636.77	FENCEGRD	133.73
582	407027.98	3777634.81	FENCEGRD	133.70
583	406933.37	3777680.94	FENCEGRD	134.45
584	406940.77	3777678.64	FENCEGRD	134.46
585	406945.23	3777676.68	FENCEGRD	134.59
586	406949.69	3777674.71	FENCEGRD	134.61
587	406954.15	3777672.75	FENCEGRD	134.45
588	406958.61	3777670.79	FENCEGRD	134.29
589	406963.08	3777668.83	FENCEGRD	134.29
590	406967.54	3777666.86	FENCEGRD	134.35
591	406972.00	3777664.90	FENCEGRD	134.41
592	406976.46	3777662.94	FENCEGRD	134.32
593	406980.92	3777660.97	FENCEGRD	134.08
594	406985.38	3777659.01	FENCEGRD	134.13
595	406989.84	3777657.05	FENCEGRD	134.13
596	406994.31	3777655.09	FENCEGRD	134.18
597	406998.77	3777653.12	FENCEGRD	134.12
598	407003.23	3777651.16	FENCEGRD	133.95
599	407007.69	3777649.20	FENCEGRD	133.85
600	407012.15	3777647.23	FENCEGRD	133.92

# Receptor Pathway

AERMOD

601	407016.61	3777645.27	FENCEGRD	133.94
602	407021.07	3777643.31	FENCEGRD	133.97
603	407025.54	3777641.35	FENCEGRD	133.83
604	407030.00	3777639.38	FENCEGRD	133.67
605	406933.92	3777685.69	FENCEGRD	134.91
606	406942.78	3777683.22	FENCEGRD	135.20
607	406947.24	3777681.25	FENCEGRD	135.06
608	406951.70	3777679.29	FENCEGRD	135.38
609	406956.17	3777677.33	FENCEGRD	135.49
610	406960.63	3777675.37	FENCEGRD	135.38
611	406965.09	3777673.40	FENCEGRD	135.00
612	406969.55	3777671.44	FENCEGRD	134.78
613	406974.01	3777669.48	FENCEGRD	134.98
614	406978.47	3777667.51	FENCEGRD	135.16
615	406982.93	3777665.55	FENCEGRD	135.12
616	406987.40	3777663.59	FENCEGRD	134.96
617	406991.86	3777661.63	FENCEGRD	134.58
618	406996.32	3777659.66	FENCEGRD	134.63
619	407000.78	3777657.70	FENCEGRD	134.81
620	407005.24	3777655.74	FENCEGRD	134.95
621	407009.70	3777653.77	FENCEGRD	134.84
622	407014.16	3777651.81	FENCEGRD	134.52
623	407018.63	3777649.85	FENCEGRD	134.38
624	407023.09	3777647.89	FENCEGRD	134.58
625	407027.55	3777645.92	FENCEGRD	134.73
626	407032.01	3777643.96	FENCEGRD	134.66
627	406936.42	3777690.21	FENCEGRD	136.41
628	406925.11	3777689.27	FENCEGRD	134.55
629	406944.80	3777687.79	FENCEGRD	137.61
630	406949.26	3777685.83	FENCEGRD	137.32
631	406953.72	3777683.87	FENCEGRD	136.93
632	406958.18	3777681.91	FENCEGRD	136.83
633	406962.64	3777679.94	FENCEGRD	136.98
634	406967.10	3777677.98	FENCEGRD	137.08
635	406971.56	3777676.02	FENCEGRD	137.16
636	406976.03	3777674.05	FENCEGRD	136.78
637	406980.49	3777672.09	FENCEGRD	136.40
638	406984.95	3777670.13	FENCEGRD	136.54

# Receptor Pathway

AERMOD

639	406989.41	3777668.17	FENCEGRD	136.63
640	406993.87	3777666.20	FENCEGRD	136.44
641	406998.33	3777664.24	FENCEGRD	136.14
642	407002.79	3777662.28	FENCEGRD	136.13
643	407007.26	3777660.31	FENCEGRD	136.28
644	407011.72	3777658.35	FENCEGRD	136.47
645	407016.18	3777656.39	FENCEGRD	136.41
646	407020.64	3777654.43	FENCEGRD	136.33
647	407025.10	3777652.46	FENCEGRD	136.06
648	407029.56	3777650.50	FENCEGRD	135.94
649	407034.02	3777648.54	FENCEGRD	136.17
650	406938.68	3777694.76	FENCEGRD	138.04
651	406931.34	3777695.60	FENCEGRD	134.61
652	406924.40	3777694.30	FENCEGRD	134.55
653	406946.81	3777692.37	FENCEGRD	140.32
654	406951.27	3777690.41	FENCEGRD	139.78
655	406955.73	3777688.44	FENCEGRD	139.13
656	406960.19	3777686.48	FENCEGRD	138.76
657	406964.65	3777684.52	FENCEGRD	138.67
658	406969.12	3777682.56	FENCEGRD	139.38
659	406973.58	3777680.59	FENCEGRD	140.00
660	406978.04	3777678.63	FENCEGRD	139.25
661	406982.50	3777676.67	FENCEGRD	138.65
662	406986.96	3777674.70	FENCEGRD	138.39
663	406991.42	3777672.74	FENCEGRD	138.42
664	406995.88	3777670.78	FENCEGRD	138.38
665	407000.35	3777668.82	FENCEGRD	138.25
666	407004.81	3777666.85	FENCEGRD	138.42
667	407009.27	3777664.89	FENCEGRD	138.40
668	407013.73	3777662.93	FENCEGRD	138.32
669	407018.19	3777660.96	FENCEGRD	138.61
670	407022.65	3777659.00	FENCEGRD	138.73
671	407027.11	3777657.04	FENCEGRD	138.57
672	407031.58	3777655.08	FENCEGRD	138.36
673	407036.04	3777653.11	FENCEGRD	138.15
674	407032.46	3777633.02	FENCEGRD	133.61
675	407037.09	3777631.17	FENCEGRD	133.55
676	407041.72	3777629.32	FENCEGRD	133.47

# Receptor Pathway

AERMOD

677	407046.34	3777627.47	FENCEGRD	133.52
678	407050.97	3777625.61	FENCEGRD	133.56
679	407055.60	3777623.76	FENCEGRD	133.61
680	407060.23	3777621.91	FENCEGRD	133.63
681	407064.86	3777620.06	FENCEGRD	133.54
682	407069.49	3777618.21	FENCEGRD	133.49
683	407074.12	3777616.35	FENCEGRD	133.52
684	407078.75	3777614.50	FENCEGRD	133.58
685	407083.38	3777612.65	FENCEGRD	133.63
686	407088.01	3777610.80	FENCEGRD	133.67
687	407092.64	3777608.95	FENCEGRD	133.68
688	407097.27	3777607.10	FENCEGRD	133.62
689	407101.90	3777605.24	FENCEGRD	133.63
690	407106.53	3777603.39	FENCEGRD	133.70
691	407034.31	3777637.66	FENCEGRD	133.66
692	407038.94	3777635.81	FENCEGRD	133.70
693	407043.57	3777633.96	FENCEGRD	133.75
694	407048.20	3777632.11	FENCEGRD	133.76
695	407052.83	3777630.26	FENCEGRD	133.59
696	407057.46	3777628.40	FENCEGRD	133.55
697	407062.09	3777626.55	FENCEGRD	133.58
698	407066.72	3777624.70	FENCEGRD	133.56
699	407071.35	3777622.85	FENCEGRD	133.66
700	407075.98	3777621.00	FENCEGRD	133.66
701	407080.61	3777619.15	FENCEGRD	133.55
702	407085.24	3777617.29	FENCEGRD	133.61
703	407089.87	3777615.44	FENCEGRD	133.65
704	407094.50	3777613.59	FENCEGRD	133.69
705	407099.13	3777611.74	FENCEGRD	133.67
706	407103.75	3777609.89	FENCEGRD	133.64
707	407108.38	3777608.03	FENCEGRD	133.64
708	407036.17	3777642.31	FENCEGRD	134.47
709	407040.80	3777640.45	FENCEGRD	134.04
710	407045.43	3777638.60	FENCEGRD	134.26
711	407050.06	3777636.75	FENCEGRD	134.49
712	407054.69	3777634.90	FENCEGRD	134.61
713	407059.32	3777633.05	FENCEGRD	134.49
714	407063.95	3777631.19	FENCEGRD	134.14

# Receptor Pathway

AERMOD

715	407068.58	3777629.34	FENCEGRD	133.74
716	407073.21	3777627.49	FENCEGRD	134.01
717	407077.83	3777625.64	FENCEGRD	134.23
718	407082.46	3777623.79	FENCEGRD	134.36
719	407087.09	3777621.94	FENCEGRD	134.26
720	407091.72	3777620.08	FENCEGRD	133.94
721	407096.35	3777618.23	FENCEGRD	133.77
722	407100.98	3777616.38	FENCEGRD	133.84
723	407105.61	3777614.53	FENCEGRD	133.91
724	407110.24	3777612.68	FENCEGRD	133.94
725	407042.66	3777645.10	FENCEGRD	136.14
726	407047.29	3777643.24	FENCEGRD	136.05
727	407051.92	3777641.39	FENCEGRD	135.89
728	407056.54	3777639.54	FENCEGRD	135.88
729	407061.17	3777637.69	FENCEGRD	136.03
730	407065.80	3777635.84	FENCEGRD	135.95
731	407070.43	3777633.99	FENCEGRD	135.76
732	407075.06	3777632.13	FENCEGRD	135.48
733	407079.69	3777630.28	FENCEGRD	135.30
734	407084.32	3777628.43	FENCEGRD	135.40
735	407088.95	3777626.58	FENCEGRD	135.52
736	407093.58	3777624.73	FENCEGRD	135.44
737	407098.21	3777622.87	FENCEGRD	135.20
738	407102.84	3777621.02	FENCEGRD	134.82
739	407107.47	3777619.17	FENCEGRD	134.34
740	407112.10	3777617.32	FENCEGRD	134.44
741	407044.51	3777649.74	FENCEGRD	138.43
742	407049.14	3777647.89	FENCEGRD	138.47
743	407053.77	3777646.03	FENCEGRD	138.36
744	407058.40	3777644.18	FENCEGRD	138.24
745	407063.03	3777642.33	FENCEGRD	138.00
746	407067.66	3777640.48	FENCEGRD	137.96
747	407072.29	3777638.63	FENCEGRD	138.01
748	407076.92	3777636.78	FENCEGRD	137.91
749	407081.55	3777634.92	FENCEGRD	137.80
750	407086.18	3777633.07	FENCEGRD	137.59
751	407090.81	3777631.22	FENCEGRD	137.33
752	407095.44	3777629.37	FENCEGRD	137.12



# Receptor Pathway

AERMOD

753	407100.07	3777627.52	FENCEGRD	137.05
754	407104.70	3777625.67	FENCEGRD	136.82
755	407109.33	3777623.81	FENCEGRD	136.46
756	407113.95	3777621.96	FENCEGRD	136.16
757	407110.84	3777601.95	FENCEGRD	133.74
758	407115.43	3777600.41	FENCEGRD	133.80
759	407120.01	3777598.87	FENCEGRD	133.81
760	407124.59	3777597.33	FENCEGRD	133.77
761	407129.17	3777595.79	FENCEGRD	133.78
762	407133.75	3777594.25	FENCEGRD	133.82
763	407138.33	3777592.71	FENCEGRD	133.89
764	407142.91	3777591.16	FENCEGRD	133.96
765	407147.49	3777589.62	FENCEGRD	133.97
766	407152.07	3777588.08	FENCEGRD	133.96
767	407156.65	3777586.54	FENCEGRD	133.88
768	407161.23	3777585.00	FENCEGRD	133.85
769	407165.81	3777583.46	FENCEGRD	133.89
770	407170.39	3777581.92	FENCEGRD	133.93
771	407174.97	3777580.38	FENCEGRD	133.97
772	407179.55	3777578.84	FENCEGRD	134.02
773	407184.13	3777577.30	FENCEGRD	134.07
774	407188.71	3777575.76	FENCEGRD	134.04
775	407117.02	3777605.15	FENCEGRD	133.75
776	407121.60	3777603.61	FENCEGRD	133.78
777	407126.18	3777602.07	FENCEGRD	133.76
778	407130.76	3777600.53	FENCEGRD	133.78
779	407135.34	3777598.98	FENCEGRD	133.76
780	407139.92	3777597.44	FENCEGRD	133.79
781	407144.50	3777595.90	FENCEGRD	133.86
782	407149.08	3777594.36	FENCEGRD	133.90
783	407153.66	3777592.82	FENCEGRD	133.92
784	407158.24	3777591.28	FENCEGRD	133.90
785	407162.82	3777589.74	FENCEGRD	133.89
786	407167.41	3777588.20	FENCEGRD	133.89
787	407171.99	3777586.66	FENCEGRD	133.91
788	407176.57	3777585.12	FENCEGRD	133.96
789	407181.15	3777583.58	FENCEGRD	134.00
790	407185.73	3777582.04	FENCEGRD	134.06

# Receptor Pathway

AERMOD

791	407190.31	3777580.50	FENCEGRD	134.04
792	407118.61	3777609.89	FENCEGRD	133.93
793	407123.19	3777608.35	FENCEGRD	133.78
794	407127.77	3777606.81	FENCEGRD	133.83
795	407132.35	3777605.26	FENCEGRD	133.92
796	407136.94	3777603.72	FENCEGRD	133.96
797	407141.52	3777602.18	FENCEGRD	133.98
798	407146.10	3777600.64	FENCEGRD	133.98
799	407150.68	3777599.10	FENCEGRD	133.94
800	407155.26	3777597.56	FENCEGRD	133.93
801	407159.84	3777596.02	FENCEGRD	133.98
802	407164.42	3777594.48	FENCEGRD	134.02
803	407169.00	3777592.94	FENCEGRD	134.06
804	407173.58	3777591.40	FENCEGRD	134.04
805	407178.16	3777589.86	FENCEGRD	134.03
806	407182.74	3777588.32	FENCEGRD	134.02
807	407187.32	3777586.78	FENCEGRD	134.04
808	407191.90	3777585.24	FENCEGRD	134.07
809	407120.21	3777614.63	FENCEGRD	134.75
810	407124.79	3777613.08	FENCEGRD	134.80
811	407129.37	3777611.54	FENCEGRD	134.71
812	407133.95	3777610.00	FENCEGRD	134.51
813	407138.53	3777608.46	FENCEGRD	134.22
814	407143.11	3777606.92	FENCEGRD	134.25
815	407147.69	3777605.38	FENCEGRD	134.31
816	407152.27	3777603.84	FENCEGRD	134.32
817	407156.85	3777602.30	FENCEGRD	134.43
818	407161.43	3777600.76	FENCEGRD	134.44
819	407166.01	3777599.22	FENCEGRD	134.36
820	407170.59	3777597.68	FENCEGRD	134.22
821	407175.17	3777596.14	FENCEGRD	134.20
822	407179.75	3777594.60	FENCEGRD	134.19
823	407184.33	3777593.06	FENCEGRD	134.20
824	407188.92	3777591.52	FENCEGRD	134.21
825	407193.50	3777589.98	FENCEGRD	134.21
826	407121.80	3777619.36	FENCEGRD	135.90
827	407126.38	3777617.82	FENCEGRD	136.02
828	407130.96	3777616.28	FENCEGRD	136.07

# Receptor Pathway

AERMOD

829	407135.54	3777614.74	FENCEGRD	136.01
830	407140.12	3777613.20	FENCEGRD	135.85
831	407144.70	3777611.66	FENCEGRD	135.60
832	407149.28	3777610.12	FENCEGRD	135.27
833	407153.86	3777608.58	FENCEGRD	134.94
834	407158.45	3777607.04	FENCEGRD	135.06
835	407163.03	3777605.50	FENCEGRD	135.18
836	407167.61	3777603.96	FENCEGRD	135.20
837	407172.19	3777602.42	FENCEGRD	135.12
838	407176.77	3777600.88	FENCEGRD	134.94
839	407181.35	3777599.34	FENCEGRD	134.72
840	407185.93	3777597.80	FENCEGRD	134.43
841	407190.51	3777596.26	FENCEGRD	134.40
842	407195.09	3777594.72	FENCEGRD	134.41
843	407196.34	3777574.72	FENCEGRD	133.97
844	407204.83	3777573.47	FENCEGRD	134.04
845	407213.33	3777572.22	FENCEGRD	134.14
846	407197.07	3777579.66	FENCEGRD	134.01
847	407205.56	3777578.41	FENCEGRD	134.04
848	407214.06	3777577.16	FENCEGRD	134.06
849	407197.80	3777584.61	FENCEGRD	134.13
850	407206.29	3777583.36	FENCEGRD	134.23
851	407214.78	3777582.11	FENCEGRD	134.28
852	407198.53	3777589.56	FENCEGRD	134.29
853	407207.02	3777588.31	FENCEGRD	134.42
854	407215.51	3777587.06	FENCEGRD	134.50
855	407203.50	3777593.88	FENCEGRD	134.54
856	407211.99	3777592.63	FENCEGRD	134.60
857	407218.08	3777571.46	FENCEGRD	134.15
858	407222.76	3777570.71	FENCEGRD	134.15
859	407227.45	3777569.96	FENCEGRD	134.13
860	407232.13	3777569.21	FENCEGRD	134.17
861	407218.87	3777576.39	FENCEGRD	134.09
862	407223.55	3777575.64	FENCEGRD	134.12
863	407228.24	3777574.89	FENCEGRD	134.14
864	407232.92	3777574.14	FENCEGRD	134.18
865	407219.66	3777581.33	FENCEGRD	134.28
866	407224.34	3777580.58	FENCEGRD	134.28

# Receptor Pathway

AERMOD

867	407229.03	3777579.83	FENCEGRD	134.27
868	407233.71	3777579.08	FENCEGRD	134.26
869	407220.45	3777586.27	FENCEGRD	134.50
870	407225.13	3777585.52	FENCEGRD	134.47
871	407229.82	3777584.77	FENCEGRD	134.45
872	407234.50	3777584.02	FENCEGRD	134.42
873	407216.55	3777591.96	FENCEGRD	134.65
874	407221.24	3777591.21	FENCEGRD	134.68
875	407225.92	3777590.46	FENCEGRD	134.70
876	407230.61	3777589.71	FENCEGRD	134.70
877	407235.29	3777588.96	FENCEGRD	134.67
878	407240.94	3777569.36	FENCEGRD	134.30
879	407245.77	3777569.41	FENCEGRD	134.36
880	407250.59	3777569.46	FENCEGRD	134.34
881	407255.42	3777569.50	FENCEGRD	134.33
882	407260.24	3777569.55	FENCEGRD	134.36
883	407265.07	3777569.60	FENCEGRD	134.39
884	407269.89	3777569.64	FENCEGRD	134.40
885	407274.72	3777569.69	FENCEGRD	134.45
886	407279.54	3777569.74	FENCEGRD	134.54
887	407284.37	3777569.79	FENCEGRD	134.60
888	407289.19	3777569.83	FENCEGRD	134.67
889	407294.02	3777569.88	FENCEGRD	134.76
890	407298.84	3777569.93	FENCEGRD	134.85
891	407303.67	3777569.97	FENCEGRD	134.95
892	407308.49	3777570.02	FENCEGRD	135.03
893	407240.89	3777574.36	FENCEGRD	134.23
894	407245.72	3777574.41	FENCEGRD	134.27
895	407250.54	3777574.46	FENCEGRD	134.28
896	407255.37	3777574.50	FENCEGRD	134.29
897	407260.19	3777574.55	FENCEGRD	134.32
898	407265.02	3777574.60	FENCEGRD	134.34
899	407269.84	3777574.64	FENCEGRD	134.36
900	407274.67	3777574.69	FENCEGRD	134.40
901	407279.49	3777574.74	FENCEGRD	134.45
902	407284.32	3777574.79	FENCEGRD	134.53
903	407289.14	3777574.83	FENCEGRD	134.63
904	407293.97	3777574.88	FENCEGRD	134.75

# Receptor Pathway

AERMOD

905	407298.79	3777574.93	FENCEGRD	134.87
906	407303.62	3777574.97	FENCEGRD	134.99
907	407308.44	3777575.02	FENCEGRD	135.07
908	407240.84	3777579.36	FENCEGRD	134.30
909	407245.67	3777579.41	FENCEGRD	134.33
910	407250.49	3777579.46	FENCEGRD	134.39
911	407255.32	3777579.50	FENCEGRD	134.45
912	407260.14	3777579.55	FENCEGRD	134.50
913	407264.97	3777579.60	FENCEGRD	134.54
914	407269.79	3777579.64	FENCEGRD	134.58
915	407274.62	3777579.69	FENCEGRD	134.62
916	407279.44	3777579.74	FENCEGRD	134.66
917	407284.27	3777579.78	FENCEGRD	134.76
918	407289.09	3777579.83	FENCEGRD	134.88
919	407293.92	3777579.88	FENCEGRD	135.01
920	407298.74	3777579.93	FENCEGRD	135.12
921	407303.57	3777579.97	FENCEGRD	135.20
922	407308.39	3777580.02	FENCEGRD	135.25
923	407240.80	3777584.36	FENCEGRD	134.46
924	407245.62	3777584.41	FENCEGRD	134.50
925	407250.45	3777584.46	FENCEGRD	134.62
926	407255.27	3777584.50	FENCEGRD	134.73
927	407260.10	3777584.55	FENCEGRD	134.81
928	407264.92	3777584.60	FENCEGRD	134.88
929	407269.75	3777584.64	FENCEGRD	134.92
930	407274.57	3777584.69	FENCEGRD	134.96
931	407279.40	3777584.74	FENCEGRD	134.99
932	407284.22	3777584.78	FENCEGRD	135.10
933	407289.05	3777584.83	FENCEGRD	135.22
934	407293.87	3777584.88	FENCEGRD	135.35
935	407298.70	3777584.93	FENCEGRD	135.44
936	407303.52	3777584.97	FENCEGRD	135.45
937	407308.35	3777585.02	FENCEGRD	135.47
938	407240.75	3777589.36	FENCEGRD	134.76
939	407245.57	3777589.41	FENCEGRD	134.85
940	407250.40	3777589.46	FENCEGRD	135.00
941	407255.22	3777589.50	FENCEGRD	135.16
942	407260.05	3777589.55	FENCEGRD	135.28

# Receptor Pathway

AERMOD

943	407264.87	3777589.60	FENCEGRD	135.39
944	407269.70	3777589.64	FENCEGRD	135.47
945	407274.52	3777589.69	FENCEGRD	135.56
946	407279.35	3777589.74	FENCEGRD	135.66
947	407284.17	3777589.78	FENCEGRD	135.72
948	407289.00	3777589.83	FENCEGRD	135.77
949	407293.82	3777589.88	FENCEGRD	135.82
950	407298.65	3777589.93	FENCEGRD	135.85
951	407303.47	3777589.97	FENCEGRD	135.82
952	407308.30	3777590.02	FENCEGRD	135.75
953	407313.54	3777565.05	FENCEGRD	135.09
954	407313.57	3777560.13	FENCEGRD	134.94
955	407313.60	3777555.22	FENCEGRD	134.79
956	407313.62	3777550.31	FENCEGRD	134.74
957	407313.65	3777545.39	FENCEGRD	134.69
958	407313.68	3777540.48	FENCEGRD	134.60
959	407313.71	3777535.57	FENCEGRD	134.51
960	407313.73	3777530.65	FENCEGRD	134.44
961	407313.76	3777525.74	FENCEGRD	134.37
962	407313.79	3777520.82	FENCEGRD	134.31
963	407313.82	3777515.91	FENCEGRD	134.25
964	407313.85	3777511.00	FENCEGRD	134.15
965	407313.87	3777506.08	FENCEGRD	134.05
966	407313.90	3777501.17	FENCEGRD	133.92
967	407313.93	3777496.26	FENCEGRD	133.78
968	407313.96	3777491.34	FENCEGRD	133.66
969	407313.98	3777486.43	FENCEGRD	133.58
970	407314.01	3777481.52	FENCEGRD	133.50
971	407314.04	3777476.60	FENCEGRD	133.43
972	407314.07	3777471.69	FENCEGRD	133.37
973	407314.10	3777466.77	FENCEGRD	133.33
974	407314.12	3777461.86	FENCEGRD	133.29
975	407314.15	3777456.95	FENCEGRD	133.26
976	407314.18	3777452.03	FENCEGRD	133.24
977	407314.21	3777447.12	FENCEGRD	133.29
978	407314.23	3777442.21	FENCEGRD	133.34
979	407314.26	3777437.29	FENCEGRD	133.37
980	407314.29	3777432.38	FENCEGRD	133.39

# Receptor Pathway

AERMOD

981	407317.05	3777568.61	FENCEGRD	135.13
982	407318.57	3777560.16	FENCEGRD	134.99
983	407318.60	3777555.25	FENCEGRD	134.88
984	407318.62	3777550.34	FENCEGRD	134.81
985	407318.65	3777545.42	FENCEGRD	134.74
986	407318.68	3777540.51	FENCEGRD	134.65
987	407318.71	3777535.59	FENCEGRD	134.56
988	407318.73	3777530.68	FENCEGRD	134.48
989	407318.76	3777525.77	FENCEGRD	134.40
990	407318.79	3777520.85	FENCEGRD	134.32
991	407318.82	3777515.94	FENCEGRD	134.25
992	407318.85	3777511.03	FENCEGRD	134.17
993	407318.87	3777506.11	FENCEGRD	134.07
994	407318.90	3777501.20	FENCEGRD	133.97
995	407318.93	3777496.28	FENCEGRD	133.86
996	407318.96	3777491.37	FENCEGRD	133.75
997	407318.98	3777486.46	FENCEGRD	133.65
998	407319.01	3777481.54	FENCEGRD	133.56
999	407319.04	3777476.63	FENCEGRD	133.47
1,000	407319.07	3777471.72	FENCEGRD	133.39
1,001	407319.10	3777466.80	FENCEGRD	133.32
1,002	407319.12	3777461.89	FENCEGRD	133.26
1,003	407319.15	3777456.98	FENCEGRD	133.23
1,004	407319.18	3777452.06	FENCEGRD	133.20
1,005	407319.21	3777447.15	FENCEGRD	133.25
1,006	407319.23	3777442.23	FENCEGRD	133.29
1,007	407319.26	3777437.32	FENCEGRD	133.34
1,008	407319.29	3777432.41	FENCEGRD	133.40
1,009	407322.05	3777568.64	FENCEGRD	135.15
1,010	407315.51	3777577.14	FENCEGRD	135.19
1,011	407323.57	3777560.19	FENCEGRD	135.00
1,012	407323.60	3777555.28	FENCEGRD	134.93
1,013	407323.62	3777550.36	FENCEGRD	134.85
1,014	407323.65	3777545.45	FENCEGRD	134.76
1,015	407323.68	3777540.54	FENCEGRD	134.67
1,016	407323.71	3777535.62	FENCEGRD	134.57
1,017	407323.73	3777530.71	FENCEGRD	134.48
1,018	407323.76	3777525.80	FENCEGRD	134.39

# Receptor Pathway

AERMOD

1,019	407323.79	3777520.88	FENCEGRD	134.31
1,020	407323.82	3777515.97	FENCEGRD	134.23
1,021	407323.85	3777511.05	FENCEGRD	134.14
1,022	407323.87	3777506.14	FENCEGRD	134.05
1,023	407323.90	3777501.23	FENCEGRD	133.95
1,024	407323.93	3777496.31	FENCEGRD	133.86
1,025	407323.96	3777491.40	FENCEGRD	133.77
1,026	407323.98	3777486.49	FENCEGRD	133.67
1,027	407324.01	3777481.57	FENCEGRD	133.57
1,028	407324.04	3777476.66	FENCEGRD	133.48
1,029	407324.07	3777471.74	FENCEGRD	133.39
1,030	407324.10	3777466.83	FENCEGRD	133.30
1,031	407324.12	3777461.92	FENCEGRD	133.23
1,032	407324.15	3777457.00	FENCEGRD	133.18
1,033	407324.18	3777452.09	FENCEGRD	133.15
1,034	407324.21	3777447.18	FENCEGRD	133.20
1,035	407324.23	3777442.26	FENCEGRD	133.25
1,036	407324.26	3777437.35	FENCEGRD	133.33
1,037	407324.29	3777432.43	FENCEGRD	133.40
1,038	407327.05	3777568.67	FENCEGRD	135.03
1,039	407324.06	3777575.74	FENCEGRD	135.25
1,040	407319.02	3777580.71	FENCEGRD	135.35
1,041	407328.57	3777560.22	FENCEGRD	134.90
1,042	407328.60	3777555.31	FENCEGRD	134.88
1,043	407328.62	3777550.39	FENCEGRD	134.78
1,044	407328.65	3777545.48	FENCEGRD	134.69
1,045	407328.68	3777540.56	FENCEGRD	134.59
1,046	407328.71	3777535.65	FENCEGRD	134.49
1,047	407328.73	3777530.74	FENCEGRD	134.39
1,048	407328.76	3777525.82	FENCEGRD	134.30
1,049	407328.79	3777520.91	FENCEGRD	134.21
1,050	407328.82	3777516.00	FENCEGRD	134.13
1,051	407328.85	3777511.08	FENCEGRD	134.03
1,052	407328.87	3777506.17	FENCEGRD	133.91
1,053	407328.90	3777501.25	FENCEGRD	133.82
1,054	407328.93	3777496.34	FENCEGRD	133.75
1,055	407328.96	3777491.43	FENCEGRD	133.67
1,056	407328.98	3777486.51	FENCEGRD	133.61



# Receptor Pathway

AERMOD

1,057	407329.01	3777481.60	FENCEGRD	133.54
1,058	407329.04	3777476.69	FENCEGRD	133.44
1,059	407329.07	3777471.77	FENCEGRD	133.36
1,060	407329.10	3777466.86	FENCEGRD	133.27
1,061	407329.12	3777461.95	FENCEGRD	133.20
1,062	407329.15	3777457.03	FENCEGRD	133.13
1,063	407329.18	3777452.12	FENCEGRD	133.07
1,064	407329.21	3777447.20	FENCEGRD	133.15
1,065	407329.23	3777442.29	FENCEGRD	133.22
1,066	407329.26	3777437.38	FENCEGRD	133.32
1,067	407329.29	3777432.46	FENCEGRD	133.41
1,068	407331.68	3777569.58	FENCEGRD	134.93
1,069	407329.81	3777574.00	FENCEGRD	135.06
1,070	407327.95	3777578.42	FENCEGRD	135.23
1,071	407321.64	3777584.63	FENCEGRD	135.47
1,072	407317.19	3777586.43	FENCEGRD	135.53
1,073	407312.74	3777588.22	FENCEGRD	135.60
1,074	407333.54	3777565.16	FENCEGRD	134.92
1,075	407333.57	3777560.25	FENCEGRD	134.92
1,076	407333.60	3777555.33	FENCEGRD	134.92
1,077	407333.62	3777550.42	FENCEGRD	134.85
1,078	407333.65	3777545.51	FENCEGRD	134.78
1,079	407333.68	3777540.59	FENCEGRD	134.68
1,080	407333.71	3777535.68	FENCEGRD	134.57
1,081	407333.73	3777530.77	FENCEGRD	134.48
1,082	407333.76	3777525.85	FENCEGRD	134.40
1,083	407333.79	3777520.94	FENCEGRD	134.31
1,084	407333.82	3777516.02	FENCEGRD	134.21
1,085	407333.85	3777511.11	FENCEGRD	134.10
1,086	407333.87	3777506.20	FENCEGRD	133.96
1,087	407333.90	3777501.28	FENCEGRD	133.85
1,088	407333.93	3777496.37	FENCEGRD	133.77
1,089	407333.96	3777491.46	FENCEGRD	133.70
1,090	407333.98	3777486.54	FENCEGRD	133.67
1,091	407334.01	3777481.63	FENCEGRD	133.63
1,092	407334.04	3777476.71	FENCEGRD	133.58
1,093	407334.07	3777471.80	FENCEGRD	133.52
1,094	407334.10	3777466.89	FENCEGRD	133.45

# Receptor Pathway

AERMOD

1,095	407334.12	3777461.97	FENCEGRD	133.36
1,096	407334.15	3777457.06	FENCEGRD	133.23
1,097	407334.18	3777452.15	FENCEGRD	133.11
1,098	407334.21	3777447.23	FENCEGRD	133.21
1,099	407334.23	3777442.32	FENCEGRD	133.30
1,100	407334.26	3777437.41	FENCEGRD	133.38
1,101	407334.29	3777432.49	FENCEGRD	133.46
1,102	407308.54	3777565.02	FENCEPRI	134.98
1,103	407309.29	3777432.35	FENCEPRI	133.30
1,104	406926.29	3777562.02	FENCEPRI	134.79
1,105	406924.79	3777663.96	FENCEPRI	134.48
1,106	406932.28	3777671.45	FENCEPRI	134.36
1,107	407025.97	3777630.23	FENCEPRI	133.78
1,108	407104.67	3777598.75	FENCEPRI	133.77
1,109	407187.12	3777571.02	FENCEPRI	134.02
1,110	407212.60	3777567.27	FENCEPRI	134.24
1,111	407231.34	3777564.27	FENCEPRI	134.21
1,112	407308.57	3777560.11	FENCEINT	134.82
1,113	407308.60	3777555.19	FENCEINT	134.67
1,114	407308.62	3777550.28	FENCEINT	134.66
1,115	407308.65	3777545.37	FENCEINT	134.66
1,116	407308.68	3777540.45	FENCEINT	134.56
1,117	407308.71	3777535.54	FENCEINT	134.46
1,118	407308.73	3777530.62	FENCEINT	134.38
1,119	407308.76	3777525.71	FENCEINT	134.30
1,120	407308.79	3777520.80	FENCEINT	134.24
1,121	407308.82	3777515.88	FENCEINT	134.19
1,122	407308.85	3777510.97	FENCEINT	134.11
1,123	407308.87	3777506.06	FENCEINT	134.02
1,124	407308.90	3777501.14	FENCEINT	133.92
1,125	407308.93	3777496.23	FENCEINT	133.82
1,126	407308.96	3777491.31	FENCEINT	133.72
1,127	407308.98	3777486.40	FENCEINT	133.63
1,128	407309.01	3777481.49	FENCEINT	133.53
1,129	407309.04	3777476.57	FENCEINT	133.41
1,130	407309.07	3777471.66	FENCEINT	133.32
1,131	407309.10	3777466.75	FENCEINT	133.25
1,132	407309.12	3777461.83	FENCEINT	133.19

# Receptor Pathway

AERMOD

1,133	407309.15	3777456.92	FENCEINT	133.18
1,134	407309.18	3777452.00	FENCEINT	133.18
1,135	407309.21	3777447.09	FENCEINT	133.23
1,136	407309.23	3777442.18	FENCEINT	133.28
1,137	407309.26	3777437.26	FENCEINT	133.29
1,138	407304.56	3777433.95	FENCEINT	133.17
1,139	407299.83	3777435.55	FENCEINT	133.12
1,140	407295.10	3777437.15	FENCEINT	133.00
1,141	407290.38	3777438.75	FENCEINT	132.86
1,142	407285.65	3777440.35	FENCEINT	132.87
1,143	407280.92	3777441.96	FENCEINT	133.05
1,144	407276.19	3777443.56	FENCEINT	133.14
1,145	407271.46	3777445.16	FENCEINT	133.08
1,146	407266.73	3777446.76	FENCEINT	132.96
1,147	407262.01	3777448.36	FENCEINT	132.79
1,148	407257.28	3777449.96	FENCEINT	132.84
1,149	407252.55	3777451.56	FENCEINT	133.11
1,150	407247.82	3777453.16	FENCEINT	133.30
1,151	407243.09	3777454.76	FENCEINT	133.22
1,152	407238.36	3777456.36	FENCEINT	133.12
1,153	407233.64	3777457.96	FENCEINT	133.01
1,154	407228.91	3777459.56	FENCEINT	133.01
1,155	407224.18	3777461.17	FENCEINT	133.05
1,156	407219.45	3777462.77	FENCEINT	133.30
1,157	407214.72	3777464.37	FENCEINT	133.42
1,158	407209.99	3777465.97	FENCEINT	133.29
1,159	407205.27	3777467.57	FENCEINT	133.18
1,160	407200.54	3777469.17	FENCEINT	133.10
1,161	407195.81	3777470.77	FENCEINT	133.22
1,162	407191.08	3777472.37	FENCEINT	133.30
1,163	407186.35	3777473.97	FENCEINT	133.51
1,164	407181.62	3777475.57	FENCEINT	133.50
1,165	407176.89	3777477.17	FENCEINT	133.34
1,166	407172.17	3777478.78	FENCEINT	133.21
1,167	407167.44	3777480.38	FENCEINT	133.17
1,168	407162.71	3777481.98	FENCEINT	133.26
1,169	407157.98	3777483.58	FENCEINT	133.53
1,170	407153.25	3777485.18	FENCEINT	133.71

# Receptor Pathway

AERMOD

1,171	407148.52	3777486.78	FENCEINT	133.53
1,172	407143.80	3777488.38	FENCEINT	133.34
1,173	407139.07	3777489.98	FENCEINT	133.24
1,174	407134.34	3777491.58	FENCEINT	133.37
1,175	407129.61	3777493.18	FENCEINT	133.38
1,176	407124.88	3777494.78	FENCEINT	133.67
1,177	407120.15	3777496.38	FENCEINT	133.72
1,178	407115.43	3777497.99	FENCEINT	133.51
1,179	407110.70	3777499.59	FENCEINT	133.38
1,180	407105.97	3777501.19	FENCEINT	133.38
1,181	407101.24	3777502.79	FENCEINT	133.63
1,182	407096.51	3777504.39	FENCEINT	133.63
1,183	407091.78	3777505.99	FENCEINT	133.78
1,184	407087.06	3777507.59	FENCEINT	132.40
1,185	407082.33	3777509.19	FENCEINT	131.32
1,186	407077.60	3777510.79	FENCEINT	130.56
1,187	407072.87	3777512.39	FENCEINT	130.71
1,188	407068.14	3777513.99	FENCEINT	132.61
1,189	407063.41	3777515.59	FENCEINT	133.70
1,190	407058.69	3777517.20	FENCEINT	133.90
1,191	407053.96	3777518.80	FENCEINT	133.57
1,192	407049.23	3777520.40	FENCEINT	133.27
1,193	407044.50	3777522.00	FENCEINT	133.35
1,194	407039.77	3777523.60	FENCEINT	133.70
1,195	407035.04	3777525.20	FENCEINT	133.78
1,196	407030.31	3777526.80	FENCEINT	134.06
1,197	407025.59	3777528.40	FENCEINT	133.91
1,198	407020.86	3777530.00	FENCEINT	133.68
1,199	407016.13	3777531.60	FENCEINT	133.73
1,200	407011.40	3777533.20	FENCEINT	133.73
1,201	407006.67	3777534.81	FENCEINT	133.95
1,202	407001.94	3777536.41	FENCEINT	134.05
1,203	406997.22	3777538.01	FENCEINT	134.29
1,204	406992.49	3777539.61	FENCEINT	134.06
1,205	406987.76	3777541.21	FENCEINT	133.90
1,206	406983.03	3777542.81	FENCEINT	133.92
1,207	406978.30	3777544.41	FENCEINT	133.95
1,208	406973.57	3777546.01	FENCEINT	134.10

# Receptor Pathway

AERMOD

1,209	406968.85	3777547.61	FENCEINT	134.32
1,210	406964.12	3777549.21	FENCEINT	134.37
1,211	406959.39	3777550.81	FENCEINT	134.16
1,212	406954.66	3777552.41	FENCEINT	134.01
1,213	406949.93	3777554.02	FENCEINT	134.06
1,214	406945.20	3777555.62	FENCEINT	134.25
1,215	406940.48	3777557.22	FENCEINT	134.43
1,216	406935.75	3777558.82	FENCEINT	134.66
1,217	406931.02	3777560.42	FENCEINT	134.74
1,218	406926.22	3777566.87	FENCEINT	134.79
1,219	406926.15	3777571.73	FENCEINT	134.77
1,220	406926.08	3777576.58	FENCEINT	134.72
1,221	406926.00	3777581.44	FENCEINT	134.67
1,222	406925.93	3777586.29	FENCEINT	134.61
1,223	406925.86	3777591.15	FENCEINT	134.56
1,224	406925.79	3777596.00	FENCEINT	134.54
1,225	406925.72	3777600.85	FENCEINT	134.51
1,226	406925.65	3777605.71	FENCEINT	134.43
1,227	406925.58	3777610.56	FENCEINT	134.35
1,228	406925.50	3777615.42	FENCEINT	134.33
1,229	406925.43	3777620.27	FENCEINT	134.31
1,230	406925.36	3777625.13	FENCEINT	134.33
1,231	406925.29	3777629.98	FENCEINT	134.34
1,232	406925.22	3777634.83	FENCEINT	134.37
1,233	406925.15	3777639.69	FENCEINT	134.39
1,234	406925.08	3777644.54	FENCEINT	134.39
1,235	406925.00	3777649.40	FENCEINT	134.39
1,236	406924.93	3777654.25	FENCEINT	134.41
1,237	406924.86	3777659.11	FENCEINT	134.45
1,238	406927.29	3777666.46	FENCEINT	134.43
1,239	406929.78	3777668.95	FENCEINT	134.39
1,240	406936.74	3777669.49	FENCEINT	134.30
1,241	406941.20	3777667.52	FENCEINT	134.27
1,242	406945.66	3777665.56	FENCEINT	134.26
1,243	406950.13	3777663.60	FENCEINT	134.26
1,244	406954.59	3777661.64	FENCEINT	134.28
1,245	406959.05	3777659.67	FENCEINT	134.19
1,246	406963.51	3777657.71	FENCEINT	134.10

# Receptor Pathway

AERMOD

1,247	406967.97	3777655.75	FENCEINT	134.10
1,248	406972.43	3777653.78	FENCEINT	134.15
1,249	406976.89	3777651.82	FENCEINT	134.14
1,250	406981.36	3777649.86	FENCEINT	134.10
1,251	406985.82	3777647.90	FENCEINT	134.02
1,252	406990.28	3777645.93	FENCEINT	133.95
1,253	406994.74	3777643.97	FENCEINT	133.97
1,254	406999.20	3777642.01	FENCEINT	133.98
1,255	407003.66	3777640.04	FENCEINT	133.85
1,256	407008.12	3777638.08	FENCEINT	133.76
1,257	407012.59	3777636.12	FENCEINT	133.79
1,258	407017.05	3777634.16	FENCEINT	133.80
1,259	407021.51	3777632.19	FENCEINT	133.81
1,260	407030.60	3777628.38	FENCEINT	133.67
1,261	407035.23	3777626.53	FENCEINT	133.62
1,262	407039.86	3777624.67	FENCEINT	133.60
1,263	407044.49	3777622.82	FENCEINT	133.61
1,264	407049.12	3777620.97	FENCEINT	133.64
1,265	407053.75	3777619.12	FENCEINT	133.67
1,266	407058.38	3777617.27	FENCEINT	133.65
1,267	407063.01	3777615.42	FENCEINT	133.55
1,268	407067.63	3777613.56	FENCEINT	133.52
1,269	407072.26	3777611.71	FENCEINT	133.55
1,270	407076.89	3777609.86	FENCEINT	133.60
1,271	407081.52	3777608.01	FENCEINT	133.62
1,272	407086.15	3777606.16	FENCEINT	133.60
1,273	407090.78	3777604.31	FENCEINT	133.59
1,274	407095.41	3777602.45	FENCEINT	133.62
1,275	407100.04	3777600.60	FENCEINT	133.71
1,276	407109.25	3777597.21	FENCEINT	133.78
1,277	407113.83	3777595.67	FENCEINT	133.82
1,278	407118.41	3777594.13	FENCEINT	133.88
1,279	407122.99	3777592.59	FENCEINT	133.87
1,280	407127.57	3777591.05	FENCEINT	133.89
1,281	407132.15	3777589.51	FENCEINT	133.94
1,282	407136.73	3777587.97	FENCEINT	134.00
1,283	407141.31	3777586.43	FENCEINT	133.99
1,284	407145.90	3777584.89	FENCEINT	133.95

# Receptor Pathway

AERMOD

1,285	407150.48	3777583.34	FENCEINT	133.89
1,286	407155.06	3777581.80	FENCEINT	133.86
1,287	407159.64	3777580.26	FENCEINT	133.87
1,288	407164.22	3777578.72	FENCEINT	133.91
1,289	407168.80	3777577.18	FENCEINT	133.94
1,290	407173.38	3777575.64	FENCEINT	133.96
1,291	407177.96	3777574.10	FENCEINT	133.99
1,292	407182.54	3777572.56	FENCEINT	134.01
1,293	407191.37	3777570.40	FENCEINT	134.01
1,294	407195.61	3777569.77	FENCEINT	134.03
1,295	407199.86	3777569.15	FENCEINT	134.07
1,296	407204.11	3777568.52	FENCEINT	134.12
1,297	407208.35	3777567.90	FENCEINT	134.19
1,298	407217.29	3777566.52	FENCEINT	134.23
1,299	407221.97	3777565.77	FENCEINT	134.20
1,300	407226.66	3777565.02	FENCEINT	134.17
1,301	407236.17	3777564.32	FENCEINT	134.28
1,302	407240.99	3777564.36	FENCEINT	134.34
1,303	407245.82	3777564.41	FENCEINT	134.40
1,304	407250.64	3777564.46	FENCEINT	134.35
1,305	407255.47	3777564.50	FENCEINT	134.33
1,306	407260.29	3777564.55	FENCEINT	134.36
1,307	407265.12	3777564.60	FENCEINT	134.39
1,308	407269.94	3777564.65	FENCEINT	134.42
1,309	407274.77	3777564.69	FENCEINT	134.49
1,310	407279.59	3777564.74	FENCEINT	134.59
1,311	407284.42	3777564.79	FENCEINT	134.64
1,312	407289.24	3777564.83	FENCEINT	134.69
1,313	407294.07	3777564.88	FENCEINT	134.75
1,314	407298.89	3777564.93	FENCEINT	134.82
1,315	407303.72	3777564.97	FENCEINT	134.89

## Plant Boundary Receptors

# Receptor Pathway

AERMOD

## Cartesian Plant Boundary

### Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	407308.54	3777565.02	FENCEPRI	134.98	
2	407309.29	3777432.35	FENCEPRI	133.30	
3	406926.29	3777562.02	FENCEPRI	134.79	
4	406924.79	3777663.96	FENCEPRI	134.48	
5	406932.28	3777671.45	FENCEPRI	134.36	
6	407025.97	3777630.23	FENCEPRI	133.78	
7	407104.67	3777598.75	FENCEPRI	133.77	
8	407187.12	3777571.02	FENCEPRI	134.02	
9	407212.60	3777567.27	FENCEPRI	134.24	
10	407231.34	3777564.27	FENCEPRI	134.21	

### Intermediate

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	407308.57	3777560.11	FENCEINT	134.82	
2	407308.60	3777555.19	FENCEINT	134.67	
3	407308.62	3777550.28	FENCEINT	134.66	
4	407308.65	3777545.37	FENCEINT	134.66	
5	407308.68	3777540.45	FENCEINT	134.56	
6	407308.71	3777535.54	FENCEINT	134.46	
7	407308.73	3777530.62	FENCEINT	134.38	
8	407308.76	3777525.71	FENCEINT	134.30	
9	407308.79	3777520.80	FENCEINT	134.24	
10	407308.82	3777515.88	FENCEINT	134.19	
11	407308.85	3777510.97	FENCEINT	134.11	
12	407308.87	3777506.06	FENCEINT	134.02	
13	407308.90	3777501.14	FENCEINT	133.92	
14	407308.93	3777496.23	FENCEINT	133.82	
15	407308.96	3777491.31	FENCEINT	133.72	
16	407308.98	3777486.40	FENCEINT	133.63	
17	407309.01	3777481.49	FENCEINT	133.53	
18	407309.04	3777476.57	FENCEINT	133.41	
19	407309.07	3777471.66	FENCEINT	133.32	
20	407309.10	3777466.75	FENCEINT	133.25	
21	407309.12	3777461.83	FENCEINT	133.19	
22	407309.15	3777456.92	FENCEINT	133.18	
23	407309.18	3777452.00	FENCEINT	133.18	



# Receptor Pathway

AERMOD

24	407309.21	3777447.09	FENCEINT	133.23	
25	407309.23	3777442.18	FENCEINT	133.28	
26	407309.26	3777437.26	FENCEINT	133.29	
27	407304.56	3777433.95	FENCEINT	133.17	
28	407299.83	3777435.55	FENCEINT	133.12	
29	407295.10	3777437.15	FENCEINT	133.00	
30	407290.38	3777438.75	FENCEINT	132.86	
31	407285.65	3777440.35	FENCEINT	132.87	
32	407280.92	3777441.96	FENCEINT	133.05	
33	407276.19	3777443.56	FENCEINT	133.14	
34	407271.46	3777445.16	FENCEINT	133.08	
35	407266.73	3777446.76	FENCEINT	132.96	
36	407262.01	3777448.36	FENCEINT	132.79	
37	407257.28	3777449.96	FENCEINT	132.84	
38	407252.55	3777451.56	FENCEINT	133.11	
39	407247.82	3777453.16	FENCEINT	133.30	
40	407243.09	3777454.76	FENCEINT	133.22	
41	407238.36	3777456.36	FENCEINT	133.12	
42	407233.64	3777457.96	FENCEINT	133.01	
43	407228.91	3777459.56	FENCEINT	133.01	
44	407224.18	3777461.17	FENCEINT	133.05	
45	407219.45	3777462.77	FENCEINT	133.30	
46	407214.72	3777464.37	FENCEINT	133.42	
47	407209.99	3777465.97	FENCEINT	133.29	
48	407205.27	3777467.57	FENCEINT	133.18	
49	407200.54	3777469.17	FENCEINT	133.10	
50	407195.81	3777470.77	FENCEINT	133.22	
51	407191.08	3777472.37	FENCEINT	133.30	
52	407186.35	3777473.97	FENCEINT	133.51	
53	407181.62	3777475.57	FENCEINT	133.50	
54	407176.89	3777477.17	FENCEINT	133.34	
55	407172.17	3777478.78	FENCEINT	133.21	
56	407167.44	3777480.38	FENCEINT	133.17	
57	407162.71	3777481.98	FENCEINT	133.26	
58	407157.98	3777483.58	FENCEINT	133.53	
59	407153.25	3777485.18	FENCEINT	133.71	
60	407148.52	3777486.78	FENCEINT	133.53	
61	407143.80	3777488.38	FENCEINT	133.34	
62	407139.07	3777489.98	FENCEINT	133.24	
63	407134.34	3777491.58	FENCEINT	133.37	
64	407129.61	3777493.18	FENCEINT	133.38	

# Receptor Pathway

AERMOD

65	407124.88	3777494.78	FENCEINT	133.67	
66	407120.15	3777496.38	FENCEINT	133.72	
67	407115.43	3777497.99	FENCEINT	133.51	
68	407110.70	3777499.59	FENCEINT	133.38	
69	407105.97	3777501.19	FENCEINT	133.38	
70	407101.24	3777502.79	FENCEINT	133.63	
71	407096.51	3777504.39	FENCEINT	133.63	
72	407091.78	3777505.99	FENCEINT	133.78	
73	407087.06	3777507.59	FENCEINT	132.40	
74	407082.33	3777509.19	FENCEINT	131.32	
75	407077.60	3777510.79	FENCEINT	130.56	
76	407072.87	3777512.39	FENCEINT	130.71	
77	407068.14	3777513.99	FENCEINT	132.61	
78	407063.41	3777515.59	FENCEINT	133.70	
79	407058.69	3777517.20	FENCEINT	133.90	
80	407053.96	3777518.80	FENCEINT	133.57	
81	407049.23	3777520.40	FENCEINT	133.27	
82	407044.50	3777522.00	FENCEINT	133.35	
83	407039.77	3777523.60	FENCEINT	133.70	
84	407035.04	3777525.20	FENCEINT	133.78	
85	407030.31	3777526.80	FENCEINT	134.06	
86	407025.59	3777528.40	FENCEINT	133.91	
87	407020.86	3777530.00	FENCEINT	133.68	
88	407016.13	3777531.60	FENCEINT	133.73	
89	407011.40	3777533.20	FENCEINT	133.73	
90	407006.67	3777534.81	FENCEINT	133.95	
91	407001.94	3777536.41	FENCEINT	134.05	
92	406997.22	3777538.01	FENCEINT	134.29	
93	406992.49	3777539.61	FENCEINT	134.06	
94	406987.76	3777541.21	FENCEINT	133.90	
95	406983.03	3777542.81	FENCEINT	133.92	
96	406978.30	3777544.41	FENCEINT	133.95	
97	406973.57	3777546.01	FENCEINT	134.10	
98	406968.85	3777547.61	FENCEINT	134.32	
99	406964.12	3777549.21	FENCEINT	134.37	
100	406959.39	3777550.81	FENCEINT	134.16	
101	406954.66	3777552.41	FENCEINT	134.01	
102	406949.93	3777554.02	FENCEINT	134.06	
103	406945.20	3777555.62	FENCEINT	134.25	
104	406940.48	3777557.22	FENCEINT	134.43	
105	406935.75	3777558.82	FENCEINT	134.66	

# Receptor Pathway

AERMOD

106	406931.02	3777560.42	FENCEINT	134.74	
107	406926.22	3777566.87	FENCEINT	134.79	
108	406926.15	3777571.73	FENCEINT	134.77	
109	406926.08	3777576.58	FENCEINT	134.72	
110	406926.00	3777581.44	FENCEINT	134.67	
111	406925.93	3777586.29	FENCEINT	134.61	
112	406925.86	3777591.15	FENCEINT	134.56	
113	406925.79	3777596.00	FENCEINT	134.54	
114	406925.72	3777600.85	FENCEINT	134.51	
115	406925.65	3777605.71	FENCEINT	134.43	
116	406925.58	3777610.56	FENCEINT	134.35	
117	406925.50	3777615.42	FENCEINT	134.33	
118	406925.43	3777620.27	FENCEINT	134.31	
119	406925.36	3777625.13	FENCEINT	134.33	
120	406925.29	3777629.98	FENCEINT	134.34	
121	406925.22	3777634.83	FENCEINT	134.37	
122	406925.15	3777639.69	FENCEINT	134.39	
123	406925.08	3777644.54	FENCEINT	134.39	
124	406925.00	3777649.40	FENCEINT	134.39	
125	406924.93	3777654.25	FENCEINT	134.41	
126	406924.86	3777659.11	FENCEINT	134.45	
127	406927.29	3777666.46	FENCEINT	134.43	
128	406929.78	3777668.95	FENCEINT	134.39	
129	406936.74	3777669.49	FENCEINT	134.30	
130	406941.20	3777667.52	FENCEINT	134.27	
131	406945.66	3777665.56	FENCEINT	134.26	
132	406950.13	3777663.60	FENCEINT	134.26	
133	406954.59	3777661.64	FENCEINT	134.28	
134	406959.05	3777659.67	FENCEINT	134.19	
135	406963.51	3777657.71	FENCEINT	134.10	
136	406967.97	3777655.75	FENCEINT	134.10	
137	406972.43	3777653.78	FENCEINT	134.15	
138	406976.89	3777651.82	FENCEINT	134.14	
139	406981.36	3777649.86	FENCEINT	134.10	
140	406985.82	3777647.90	FENCEINT	134.02	
141	406990.28	3777645.93	FENCEINT	133.95	
142	406994.74	3777643.97	FENCEINT	133.97	
143	406999.20	3777642.01	FENCEINT	133.98	
144	407003.66	3777640.04	FENCEINT	133.85	
145	407008.12	3777638.08	FENCEINT	133.76	
146	407012.59	3777636.12	FENCEINT	133.79	

# Receptor Pathway

AERMOD

147	407017.05	3777634.16	FENCEINT	133.80	
148	407021.51	3777632.19	FENCEINT	133.81	
149	407030.60	3777628.38	FENCEINT	133.67	
150	407035.23	3777626.53	FENCEINT	133.62	
151	407039.86	3777624.67	FENCEINT	133.60	
152	407044.49	3777622.82	FENCEINT	133.61	
153	407049.12	3777620.97	FENCEINT	133.64	
154	407053.75	3777619.12	FENCEINT	133.67	
155	407058.38	3777617.27	FENCEINT	133.65	
156	407063.01	3777615.42	FENCEINT	133.55	
157	407067.63	3777613.56	FENCEINT	133.52	
158	407072.26	3777611.71	FENCEINT	133.55	
159	407076.89	3777609.86	FENCEINT	133.60	
160	407081.52	3777608.01	FENCEINT	133.62	
161	407086.15	3777606.16	FENCEINT	133.60	
162	407090.78	3777604.31	FENCEINT	133.59	
163	407095.41	3777602.45	FENCEINT	133.62	
164	407100.04	3777600.60	FENCEINT	133.71	
165	407109.25	3777597.21	FENCEINT	133.78	
166	407113.83	3777595.67	FENCEINT	133.82	
167	407118.41	3777594.13	FENCEINT	133.88	
168	407122.99	3777592.59	FENCEINT	133.87	
169	407127.57	3777591.05	FENCEINT	133.89	
170	407132.15	3777589.51	FENCEINT	133.94	
171	407136.73	3777587.97	FENCEINT	134.00	
172	407141.31	3777586.43	FENCEINT	133.99	
173	407145.90	3777584.89	FENCEINT	133.95	
174	407150.48	3777583.34	FENCEINT	133.89	
175	407155.06	3777581.80	FENCEINT	133.86	
176	407159.64	3777580.26	FENCEINT	133.87	
177	407164.22	3777578.72	FENCEINT	133.91	
178	407168.80	3777577.18	FENCEINT	133.94	
179	407173.38	3777575.64	FENCEINT	133.96	
180	407177.96	3777574.10	FENCEINT	133.99	
181	407182.54	3777572.56	FENCEINT	134.01	
182	407191.37	3777570.40	FENCEINT	134.01	
183	407195.61	3777569.77	FENCEINT	134.03	
184	407199.86	3777569.15	FENCEINT	134.07	
185	407204.11	3777568.52	FENCEINT	134.12	
186	407208.35	3777567.90	FENCEINT	134.19	
187	407217.29	3777566.52	FENCEINT	134.23	

# Receptor Pathway

AERMOD

188	407221.97	3777565.77	FENCEINT	134.20	
189	407226.66	3777565.02	FENCEINT	134.17	
190	407236.17	3777564.32	FENCEINT	134.28	
191	407240.99	3777564.36	FENCEINT	134.34	
192	407245.82	3777564.41	FENCEINT	134.40	
193	407250.64	3777564.46	FENCEINT	134.35	
194	407255.47	3777564.50	FENCEINT	134.33	
195	407260.29	3777564.55	FENCEINT	134.36	
196	407265.12	3777564.60	FENCEINT	134.39	
197	407269.94	3777564.65	FENCEINT	134.42	
198	407274.77	3777564.69	FENCEINT	134.49	
199	407279.59	3777564.74	FENCEINT	134.59	
200	407284.42	3777564.79	FENCEINT	134.64	
201	407289.24	3777564.83	FENCEINT	134.69	
202	407294.07	3777564.88	FENCEINT	134.75	
203	407298.89	3777564.93	FENCEINT	134.82	
204	407303.72	3777564.97	FENCEINT	134.89	

## Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors
2	FENCEGRD	Receptors generated from Fenceline Grid
3	FENCEINT	Cartesian plant boundary Intermediate Receptors

# Source Pathway

AERMOD

## Building Downwash Information

Option not in use

## Emission Rate Units for Output

### For Concentration

Unit Factor:	1E6
Emission Unit Label:	GRAMS/SEC
Concentration Unit Label:	MICROGRAMS/M**3

# Results Summary

C:\Lakes\AERMOD View\Alexan\_ProjectArea\_RCZ\Alexan\_ProjectArea\_RCZ.i

## PM10 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.07087	ug/m^3	406946.81	3777692.37	140.32	0.00	140.72	

HARP2 - HRACalc (dated 16057) 7/30/2018 2:47:36 PM - Output Log

GLCs loaded successfully  
Pollutants loaded successfully

\*\*\*\*\*

RISK SCENARIO SETTINGS

Receptor Type: Resident  
Scenario: Cancer  
Calculation Method: HighEnd

\*\*\*\*\*

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25  
Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25  
0<2 Years Bin: 2  
2<9 Years Bin: 0  
2<16 Years Bin: 14  
16<30 Years Bin: 14  
16 to 70 Years Bin: 0

\*\*\*\*\*

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True  
Soil: False  
Dermal: False  
Mother's milk: False  
Water: False  
Fish: False  
Homegrown crops: False  
Beef: False  
Dairy: False  
Pig: False  
Chicken: False  
Egg: False

\*\*\*\*\*

INHALATION

Daily breathing rate: LongTerm24HR



**\*\*Worker Adjustment Factors\*\***

Worker adjustment factors enabled: NO

**\*\*Fraction at time at home\*\***

3rd Trimester to 16 years: ON

16 years to 70 years: ON

\*\*\*\*\*

**TIER 2 SETTINGS**

Tier2 not used.

\*\*\*\*\*

**Alexan SP Residential Development Draft EIR (Appendix A3)**  
**HARP Output for Alexan SP - MEIR**

\*HARP - HRACalc v16057 7/30/2018 2:50:50 PM - Cancer Risk

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhP	0.03481	2.37E-05	30YrCancel	*	2.37E-05

**Alexan SP Residential Development Draft EIR (Appendix A3)**  
**HARP Output for GP/ZCA - MEIR**

\*HARP - HRACalc v16057 7/30/2018 2:45:56 PM - Cancer Risk

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExp	0.03768	2.57E-05	30YrCancer*		2.57E-05