



Lakeview Plaza Project

Air Quality and Greenhouse Gas Emissions Study

prepared for

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1 Project Description and Impact Summary

1.1 Introduction

This study analyzes the potential air quality and greenhouse gas (GHG) emissions impacts of the proposed construction and operation of the Lakeview Plaza Project (project). Rincon Consultants, Inc. (Rincon) prepared this study under contract to Lakeview Centre, LLC. Table 1 provides a summary of project impacts.

Table 1 Summary of Impacts

Impact Statement	Proposed Project's Level of Significance	Applicable Recommendations
Air Quality		
Conflict with or obstruct implementation of the applicable air quality plan?	Less than significant impact	None
Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	Less than significant impact	Maximum Daily Hauling Trips
Expose sensitive receptors to substantial pollutant concentrations?	Less than significant impact	DPM Reduction Measures
Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant impact	None
Greenhouse Gas Emissions		
Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than significant impact with mitigation	Greenhouse Gas Reduction Plan
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant impact	None

Applicable Air Quality Regulations

The project would comply with the following existing requirements and reasonably-anticipated standard conditions based on local, state, or federal regulations and laws required independently of environmental review. These measures are not included as mitigation measures since the project is required to comply with them through state and local regulations.

Fugitive Dust Control

The project would comply with all applicable standards of the South Coast Air Quality Management District (SCAQMD), including the following provisions of Rule 403:

- All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403.
- The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.

- All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 miles per hour), so as to prevent excessive amounts of dust.
- All dirt/soil shall be secured by trimming, watering, or other appropriate means to prevent spillage and dust.
- All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
- Trucks having no current hauling activity shall not idle but be turned off.
- Exposed surfaces shall be maintained at a minimum soil moisture of 12 percent and vehicle speeds shall be limited to 15 miles per hour on unpaved roads.

Engine Idling

In accordance with Section 2485 of Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.

Engine Emission Standards

In accordance with Section 93115 of Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Architectural Coatings

The project shall comply with SCAQMD Rule 1113 limiting the volatile organic compound (VOC) content of architectural coatings.

1.2 Project Summary

Project Location

The project site is located in the Lake Edge District in an area which consists primarily of private, large-lot residential development of central Lake Elsinore, California. The project site is a 4.32-acre site (Assessor's Parcel Numbers [APN] 375-092-002, 375-092-003, 375-092-004, 375-092-005, 375-092-006) along the north side of Lakeshore Drive, west of Manning Street. A designated Recreation and Lakeshore Zone is located south and southeast of the project site, along the Lake Elsinore shoreline which is 0.15 mile from the project site. The Country Club Heights District with dispersed single-family homes is located north and northeast of the project site. Commercial development is located west of the site, along Lakeshore Drive.

Figure 1 shows the location of the site in the region, Figure 2 shows the project site in its neighborhood context, and Figure 3 shows the project site plan.

Project Description

The project would involve the construction of six commercial retail spaces in four buildings on a currently vacant lot. The property size would be approximately four acres after required street widening along Lakeshore Drive to be conducted as part of the project. The total building area

Figure 1 Regional Location



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★ Project Location

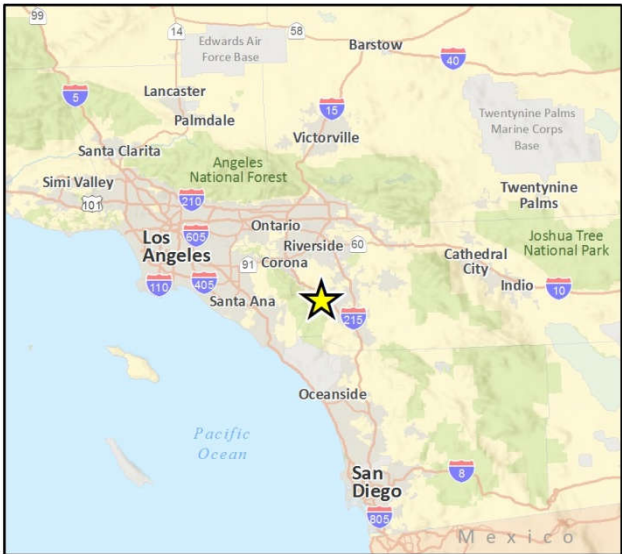
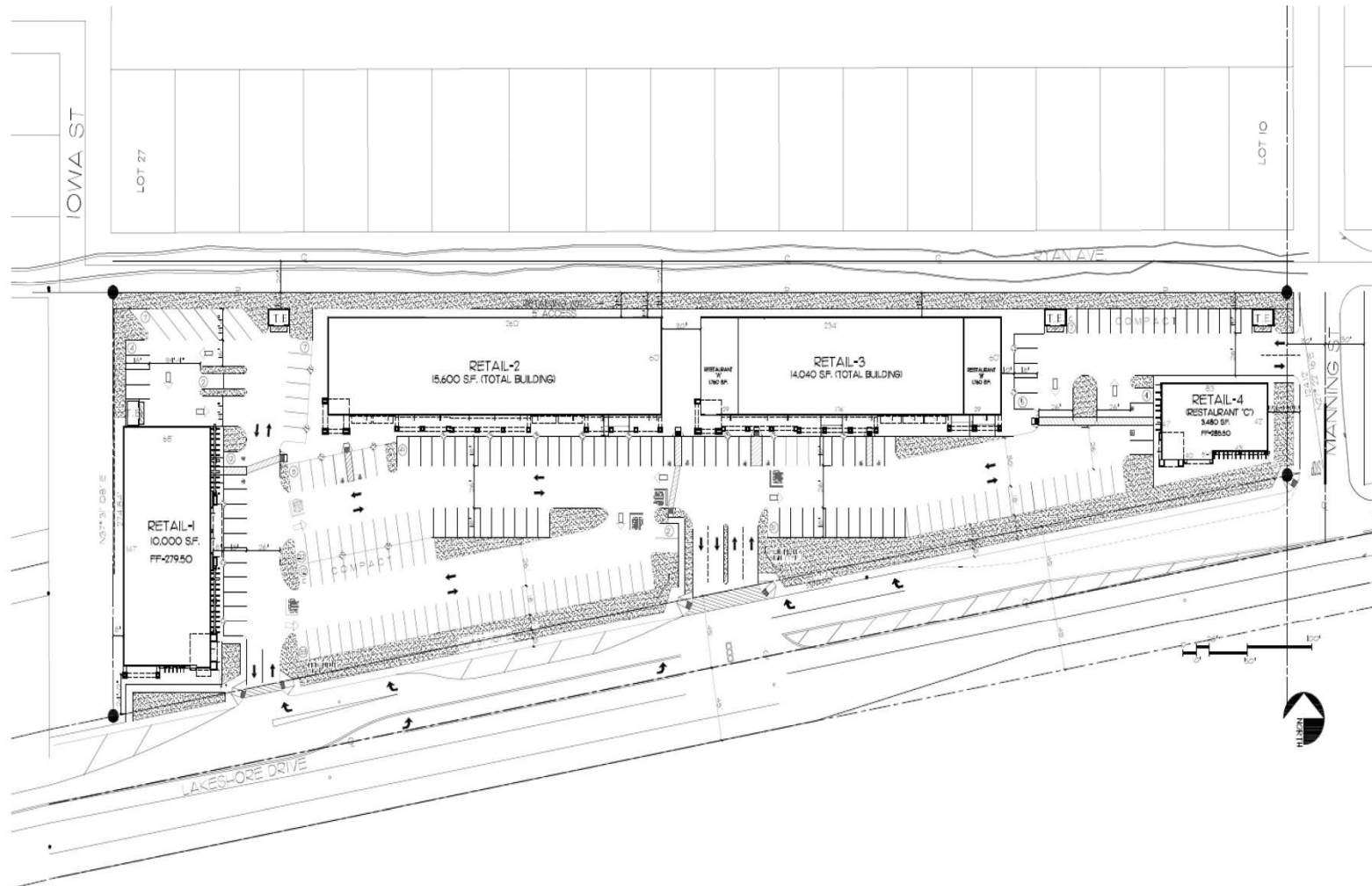


Fig. 1 Regional Location

Figure 2 Project Location



Figure 3 Project Site Plan



Source: AB Group 2019

would be 43,120 square feet in four separate buildings, which would cover approximately 24 percent of the project site, as shown in the site plan in Figure 3. Building one would include 10,000 square feet of retail space, building two would include 15,600 square feet of retail space, building three would include 14,040 square feet of space for two restaurants and one retail shop, and building four would include 3,480 square feet of restaurant space.

The building facades would include recessed planes, varying colors and materials, awnings, trellises, and varying rooflines. The maximum height of the structures would be 30 feet and rooflines would block line of sight to rooftop equipment. The project would provide 207 parking spaces, including 12 ADA parking spaces, and 29 compact parking spaces. Site access would be provided via two driveways. The main driveway would be located off Lakeshore Drive and a secondary driveway on Manning Street.

Construction would last approximately 14 months, commencing in July 2020 and concluding in September 2021. Construction activities would involve site preparation, grading, building construction, paving, and architectural coating. The topography of the project site is relatively steep, sloping down to the south and southwest towards Lake Elsinore. Therefore, project construction would include the export of 84,910 cubic yards (cy) of material off-site during grading activities. A stepped retaining wall would be installed in the northern project boundary after the leveling of the project site.

Project landscaping would include street trees and shrubs along Lakeshore Drive and Manning Street to buffer the proposed development. Trees and shrubs would be planted throughout the parking area and along the building facades to provide shade. Ground cover would be planted along the northern slope and retailing wall. Overall, the project would provide approximately 29,000 square feet of landscaped area.

2 Background

2.1 Air Quality

Local Climate and Meteorology

The project site is within the South Coast Air Basin (SCAB), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area in Riverside County. The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Air quality in the SCAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry.

Air pollutant emissions in the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

The predominant wind direction in the vicinity of the project site is from the north/northeast and the average wind speed is approximately four miles per hour (Iowa Environmental Mesonet 2019). The maximum average daily temperature in the project area ranges from approximately 65 degrees Fahrenheit (°F) in January to approximately 98°F in July and August, and the minimum average daily temperature ranges from approximately 36°F in January to 60°F in August. Total precipitation in the project area averages approximately 12 inches annually (Western Regional Climate Center 2016).

Air Quality Regulations

Federal Air Quality Regulations

The Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, to achieve the purposes of Section 109 of the CAA [42 USC 7409], the United States Environmental Protection Agency (U.S. EPA) developed primary and secondary National Ambient Air Quality Standards (NAAQS). NAAQS have been designated for the following criteria pollutants of primary concern: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter with diameters of up to ten microns (PM₁₀) and up to 2.5 microns (PM_{2.5}), and lead (Pb). The primary NAAQS "in the judgment of the Administrator¹, based on such criteria and allowing an adequate margin of safety, are requisite to

¹ The term "Administrator" means the Administrator of the Environmental Protection Agency

protect the public health” and the secondary standards are to “protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air” [42 USC 7409(b)(2)]. The U.S. EPA classifies specific geographic areas as either “attainment” or “non-attainment” areas for each pollutant based on the comparison of measured data with the NAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS. State plans also must control emissions that drift across state lines and harm air quality in downwind states. Table 2 lists the current federal standards for regulated pollutants.

Table 2 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS	CAAQS
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	–	–
	24-Hour	–	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	–	20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
PM _{2.5}	Annual	12 µg/m ³	12 µg/m ³
	24-Hour	35 µg/m ³	–
Lead	30-Day Average	–	1.5 µg/m ³
	3-Month Average	0.15 µg/m ³	–

ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards

µg/m³ = micrograms per cubic meter

Source: California Air Resources Board (CARB) 2016

The SCAQMD is the designated air quality control agency in the SCAB, which is a non-attainment area for the federal standards for ozone and PM_{2.5}. The SCAB is designated unclassifiable or in attainment for all other federal standards.

State Air Quality Regulations

CALIFORNIA AMBIENT AIR QUALITY STANDARDS

The California Clean Air Act (CCAA) was enacted in 1988 (California Health and Safety Code §39000 et seq.). Under the CCAA the state has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 2 lists the current state

standards for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Similar to the federal CAA, the CCAA classifies specific geographic areas as either “attainment” or “non-attainment” areas for each pollutant, based on the comparison of measured data within the CAAQS. The SCAB is a non-attainment area for the state standards for ozone, PM₁₀ and PM_{2.5} (SCAQMD 2016).

TOXIC AIR CONTAMINANTS

A toxic air contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM); however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities.

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics “Hot Spots” Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics “Hot Spots” Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children’s Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children’s exposure to air pollutants. The act requires California Air Resources Board (CARB) to review its air quality standards from a children’s health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children’s health.

STATE IMPLEMENTATION PLAN

The SIP is a collection of documents that set forth the state’s strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and

other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the SCAB. The air pollution control district for each county adopts rules, regulations, and programs to attain federal and state air quality standards, and appropriates money (including permit fees) to achieve these objectives.

Local Air Quality Regulations

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The SCAQMD updates the plan every three years. Each SCAQMD Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal 8-hour ozone standard of 0.070 parts per million (ppm) that was finalized in 2015. The Final 2016 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models. The Southern California Association of Governments' (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP.

The plan builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal CAA, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The plan also demonstrates strategies for attainment of the new federal 8-hour ozone standard and vehicle miles traveled (VMT) emissions offsets, pursuant to recent U.S. EPA requirements (SCAQMD 2017).

Criteria Pollutants

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and reactive organic gases (ROG²). NO_x are formed during the combustion of fuels, while ROG are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it usually occurs in substantial concentrations between the months of April and October.

² Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in various acronyms, such as TOG (total organic gases), ROG (reactive organic gases), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, two groups are important from an air quality perspective: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (ROG and VOC). SCAQMD uses the term VOC to denote organic precursors.

Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

CO is a local pollutant that is found in high concentrations near fuel combustion equipment and other sources of CO. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Therefore, elevated concentrations are usually found near areas of high traffic volumes. The health effects from CO are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

Nitrogen Dioxide

NO₂ is a byproduct of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ is an acute irritant. A relationship between NO₂ and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 ppm may occur. NO₂ absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. It can also contribute to the formation of ozone/smog and acid rain.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM₁₀ (small particulate matter which measures no more than 10 microns in diameter) and PM_{2.5} (fine particulate matter which measures no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with PM₁₀ and PM_{2.5} can be different. Major man-made sources of PM₁₀ are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer PM_{2.5} particulates are generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. PM_{2.5} is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Current Air Quality

The SCAQMD operates a network of air quality monitoring stations throughout the SCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The monitoring station closest to the project site is the Lake Elsinore-W. Flint Street monitoring station, located at 506 W Flint Street in Lake Elsinore, approximately 1.7 miles southeast of the project site. The Lake Elsinore-W. Flint monitoring station did not report state and federal particulate matter

concentrations. Therefore, this information was obtained from the nearest station reporting state and federal particulate matter data, the Perris station, located at 237 ½ N. D Street in Perris approximately 10.5 miles northeast of the project site, and the Riverside-Rubidoux station, located at 5888 Mission Boulevard in Riverside approximately 22 miles north of the project site. Table 3 indicates the number of days that each of the federal and state standards has been exceeded at monitoring station near the project site in each of the last three years for which data is available. In the vicinity of the project site, the federal and state 8-hour ozone standards were exceeded each year from 2016 to 2018, and the state worst hour ozone standard was exceeded each year from 2016 to 2018. In addition, the PM₁₀ state standard was exceeded each year and the PM_{2.5} federal standard was exceeded in 2015. No other state or federal standards were exceeded at nearby monitoring stations.

Table 3 Ambient Air Quality

Pollutant	2016	2017	2018
Ozone (ppm), maximum concentration 8-hours	0.093	0.098	0.095
Number of days of federal exceedances (>0.070 ppm) ¹	44	54	30
Number of days of state exceedances (>0.070 ppm) ¹	25	35	26
Ozone (ppm), maximum concentration 1-hour	0.124	0.121	0.116
Number of days of state exceedances (>0.09 ppm)	15	23	16
Nitrogen Dioxide (ppm), maximum concentration 1-hour	0.051	0.049	0.041
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.100 ppm)	0	0	0
Particulate Matter <10 microns (µg/m ³), maximum concentration 24-hours ²	76.0	75.4	64.4
Number of days of state exceedances (>50 µg/m ³)	0	0	0
Number of days of federal exceedances (>150 µg/m ³)	5	11	2
Particulate Matter <2.5 microns (µg/m ³), maximum concentration 24-hours ³	51.5	50.3	66.3
Estimated number of days of federal exceedances (>35 µg/m ³)	5	7	3

¹State and federal exceedances differ due to different data collection and analysis methodologies.

²Particulate Matter < 10 microns data was obtained from the Perris Station, the nearest monitoring station reporting both state and federal Particulate Matter < 10 microns data. The Perris Station is located at 237 N. D Street in Perris, approximately 10.5 miles northeast of the project site.

³Particulate Matter < 2.5 microns data was obtained from the Riverside-Rubidoux Station, the nearest monitoring station reporting both state and federal Particulate Matter < 2.5 microns data. The Riverside-Rubidoux Station is located at 5888 Mission Blvd. in Riverside, approximately 22 miles north of the project site.

Source: CARB 2019a

Sensitive Receptors

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005, OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors.

Examples of these sensitive receptors are residences, schools, hospitals, religious facilities, and daycare centers.

The closest sensitive receptors include single-family residences located approximately 35 feet northeast of the project site along Ryan Avenue and approximately 60 feet east of the project site across Manning Street.

2.2 Greenhouse Gas Emissions

Greenhouse Gas Overview

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely byproducts of fossil fuel combustion, whereas CH₄ largely results from off-gassing associated with agricultural practices and landfills.

Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (U.S. EPA 2018). However, because the project is a non-industrial development, the quantity of fluorinated gases would not be significant since fluorinated gases are primarily associated with industrial processes; therefore, fluorinated gases are not analyzed further in this document. Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, CH₄ has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2014a). N₂O has a global warming potential of 265 (IPCC 2014a).

Greenhouse Gas Emissions Inventory

Federal

Total United States GHG emissions were 6,456.7 million metric tons (MMT or gigatonnes) of CO₂e in 2017 (U.S. EPA 2019). Total United States emissions have increased by 1.3 percent since 1990; emissions decreased by 0.5 percent from 2016 to 2017 (U.S. EPA 2019). The decrease from 2016 to 2017 was a result of multiple factors, including: (1) substitution from coal to natural gas and other non-fossil energy sources in the electric power sector and (2) milder weather conditions that contributed to less overall electricity use (U.S. EPA 2019). Since 1990, U.S. emissions have increased at an average annual rate of 0.1 percent. In 2017, the transportation and industrial end-use sectors accounted for 36.7 and 27 percent each of GHG emissions (with electricity-related emissions

distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 19 percent and 17 percent of CO₂e emissions, respectively (U.S. EPA 2019).

California

Based on the CARB California Greenhouse Gas Inventory for 2000-2016, California produced 429.4 MMT of CO₂e in 2016 (CARB 2018a). The major source of GHGs in California is associated with transportation, contributing 41 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 23 percent of the state's GHG emissions, and electric power accounted for approximately 16 percent (CARB 2018a). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. CARB has projected that statewide unregulated GHG emissions for the year 2020 will be 509 MMT of CO₂e (CARB 2018b). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

Local

The City of Lake Elsinore's Climate Action Plan contains GHG emissions inventory and forecasts for both community-wide activities, including municipal operations. In 2008, GHG emissions for community-wide activities were estimated at 506,727 metric tons (MT) CO₂e. The majority of community-wide activities emissions were associated with on-road transportation (60.6 percent), followed by energy consumed in residential, commercial, and industrial buildings (32.4 percent). Municipal operations emissions constituted 0.9 percent of the community's total emissions (City of Lake Elsinore 2011a).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature for the decade from 2006 to 2015 was approximately 0.87°C (0.75°C to 0.99°C) higher than the global mean surface temperature over the period from 1850 to 1900. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations agree that LSAT as well as sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014b; 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snow pack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018a). While there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In addition to statewide projections,

California's Fourth Climate Change Assessment includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state as well as regionally-specific climate change case studies (State of California 2018a), including for the greater Los Angeles region that includes where the project is located in eastern Los Angeles County (State of California 2018b). Below is a summary of some of the potential effects that could be experienced in California and the Los Angeles region as a result of climate change.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. As temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have been occurring at higher elevations in the Sierra Nevada Mountains (State of California 2018a). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality would worsen. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Natural Resources Agency 2009).

In the southern California region, changes in meteorological conditions under climate change will affect future air quality. Regional stagnation conditions may occur more often in the future, which would increase pollutant concentrations (State of California 2018b). Hotter future temperatures will act to increase surface ozone concentrations both due to chemistry producing more ozone and higher rates of biogenic emissions, while increases of water vapor also influence chemistry by increasing ozone production in already polluted areas

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. For example, many southern California cities have experienced their lowest recorded annual precipitation twice within the past decade; however, in a span of only two years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR] 2008). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. However, the average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 5.9 inches along the central and southern California coast (State of California 2018a). The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. A warmer climate is predicted to reduce the fraction of precipitation falling as snow and result in less snowfall at lower elevations, thereby reducing the total snowpack (DWR 2008; State of California 2018a). The State of California projects that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern

California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018a).

Like the rest of the state, the southern California region is expected to face a challenging combination of decreased water supply and increased water demand (State of California 2018b). Greater interannual variability of rainfall and sharp decreases in snowpack will create surface water limitations for the region. Although the effect of climate change on average precipitation in the region is still unclear, more frequent occurrences of extreme events similar to the 2011-2016 drought could significantly decrease groundwater recharge, which is essential for the sustainability of agriculture in the region since the vast majority of water used in agriculture in the region is groundwater from local wells. Furthermore, higher temperatures mean that dry years will more quickly develop into severe drought conditions.

Hydrology

As discussed above, climate change could potentially affect the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion.

In the southern California region, despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late 21st century, the wettest day of the year is expected to increase across most of the region. Increased frequency and severity of atmospheric river events are also projected to occur for this region.

Ecosystems and Wildlife

Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the annual average maximum daily temperatures in California could rise by 4.4 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century (State of California 2018a). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals related to (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of nonnative species within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018a).

Many of the impacts identified above would impact ecosystems and wildlife in the Los Angeles region. Increases in wildfire would further remove sensitive habitat; increased severity in droughts would potentially starve plants and animals of water; and sea level rise will affect sensitive coastal ecosystems.

Greenhouse Gas Regulations

Federal Regulations

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines,

and requires annual reporting of emissions. In 2012, the U.S. EPA issued a Final Rule that establishes the GHG permitting thresholds that determine when CAA permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In 2014, the U.S. Supreme Court in *Utility Air Regulatory Group v. EPA* (134 S. Ct. 2427 [2014]) held that 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 PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT).

California Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. California has numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

CALIFORNIA ADVANCED CLEAN CARS PROGRAM

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, U.S. EPA granted the waiver of CAA preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. The Scoping Plan was approved by CARB on December 11, 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan Update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer-term GHG reduction strategies with other state policy

priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2018c).

SENATE BILL 32

Senate Bill (SB) 32, signed into law on September 8, 2016, extends AB 32 by requiring the state to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 350 and SB 1383 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with statewide per capita goals of six metric tons (MT) CO₂e by 2030 and two MT CO₂e by 2050 (CARB 2017a). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017a).

SENATE BILL 97

SB 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Natural Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

SENATE BILL 375

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. SCAG was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

SENATE BILL 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

The bill also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

SENATE BILL 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

EXECUTIVE ORDER B-55-18

On September 10, 2018, Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT (ASSEMBLY BILL 341)

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) diversion of 75 percent of all solid waste by 2020, and annually thereafter. CalRecycle is required to develop strategies to implement AB 341, including source reduction.

California Building Standards Code

CALIFORNIA CODE OF REGULATIONS, TITLE 24 – CALIFORNIA BUILDING CODE

The California Code of Regulations (CCR), Title 24, is referred to as the California Building Code, or CBC. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility, and so on. The CBC's energy efficiency and green building standards are outlined below.

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS

The CCR, Title 24, Part 6 is the Building Energy Efficiency Standards. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. The Building Energy Efficiency Standards is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval

of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC).

The 2019 standards will be in effect on January 1, 2020, and therefore would be applicable to the project. The 2019 standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and single-family homes will be 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2016 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- 20 percent reduction in indoor water use relative to specified baseline levels
- 50 percent construction/demolition waste diverted from landfills
- Inspections of energy systems to ensure optimal working efficiency
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards
- Dedicated circuitry to facilitate installation of EV charging stations in newly constructed attached garages for single-family and duplex dwellings
- Installation of EV charging stations at least three percent of the parking spaces for all new multi-family developments with 17 or more units

The voluntary standards require:

- **Tier I.** 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, cool/solar reflective roof
- **Tier II.** 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, and 30 percent cement reduction, cool/solar reflective roof

Similar to the compliance reporting procedure for demonstrating Building Energy Efficiency Standards compliance in new buildings and major renovations, compliance with the CALGreen water-reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

Regional and Local Regulations

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California regarding compliance with the federal and state air quality requirements, including the Transportation Conformity Rule and other applicable federal, state, and air district laws and regulations. As the federally designated MPO for the six-county Southern California region, SCAG is required by law to develop transportation activities that conform to, and are supportive of, the goals of regional and state air quality plans to attain NAAQS. In addition, SCAG is a co-producer with the SCAQMD of the transportation strategy and transportation control measure sections of the AQMP for the Basin. With regard to future growth, SCAG adopted the 2016 RTP/SCS in April 2016, which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the 2016 RTP/SCS are based in part on projections originating under county and city general plans. These growth projections were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2016 AQMP.

CITY OF LAKE ELSINORE CLIMATE ACTION PLAN

Adopted in December 13, 2011, the City of Lake Elsinore's Climate Action Plan (CAP) is a long-range plan to reduce local greenhouse gas emissions that contribute to climate change (Lake Elsinore 2011). The CAP includes an inventory of existing GHG emissions and projects future emissions trends. The CAP also describes local GHG emissions targets for the years 2020 and 2030, and strategies and measures to achieve the targets.

3 Impact Analysis

3.1 Methodology

Criteria pollutant and GHG emissions for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The model calculates criteria pollutant emissions of CO, PM₁₀, PM_{2.5}, SO₂, the ozone precursors, ROG and NO_x, and GHGs emissions of CO₂, N₂O, and CH₄, reported as CO₂e. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, D, and E (CAPCOA 2017). The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. CalEEMod output files for the project are included in Appendix A to this report.

Construction Emissions

Project construction would primarily generate temporary criteria pollutant and GHG emissions from construction equipment operation on-site, construction worker vehicle trips to and from the site, and from export of materials off-site. Construction input data for CalEEMod include but are not limited to: (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the project site. The analysis assessed maximum daily emissions from individual construction activities, including site preparation, grading, building construction, and architectural coating. Construction would require heavy equipment during site preparation, grading, and building construction. Construction phase timing and equipment estimates are based on surveys of construction projects in California conducted by members of CAPCOA. Project construction is assumed to commence in July 2020 and conclude in September 2021. Approximately 85,019 cy of soil would be cut during the grading phase and approximately 109 cy of excavated soil would be used as fill during the grading phase, with the remainder exported off-site. Therefore, a total of 84,910 cy of soil would be exported from the site. Given the extent of earthwork required, the grading phase of construction was extended from the CalEEMod default of 14 days to 50 days to account for onsite grading/excavation and hauling offsite.

The quantity, duration, and the intensity of construction activity influences the amount of construction emissions and their related pollutant concentrations that occur at any one time. The emission forecasts modeled for this report reflect conservative assumptions where a relatively large amount of construction is occurring in a relatively intensive manner. If construction is delayed or occurs over a longer period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in the CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

CalEEMod has the capability to calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. Emissions calculations assume application of water during grading in compliance with SCAQMD Rule 403, Fugitive Dust, and Rule 1113, Architectural Coatings (as detailed in Section 1, *Project Description and Impact Summary*). Based on CalEEMod version 2016.3.2, the PM₁₀ and PM_{2.5} reduction for watering two times per day is 55 percent.

Pursuant to SCAQMD Guidance, total construction GHG emissions resulting from the project are amortized over 30 years and added to operational GHG emissions.

Operational Emissions

In CalEEMod, operational sources of criteria pollutant emissions include area, energy, and mobile sources; GHG emissions include water and solid waste sources in addition to area, energy, and mobile sources. The project's retail use was modeled using the "Strip Mall" and "High Turnover (Sit Down Restaurant)" land use subtypes respectively, with total square footage of 43,120 consistent with the project plans. In addition, a "Parking Lot" land use subtype was modeled with 248 parking spaces covered three acres.

Energy Sources

Emissions from energy use include electricity and natural gas use. The emissions factors for natural gas combustion are based on EPA's AP-42 (*Compilation of Air Pollutant Emissions Factors*) and California Climate Action Registry (CCAR) General Reporting Protocol (CCAR 2009). Natural gas emissions are calculated by multiplying the emissions factors for combustion by the project's natural gas demand. Electricity only apply to GHG emissions (as the energy is generated off-site and therefore may not be relevant for local and regional air quality conditions) and are calculated by multiplying the electricity use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2017). The project would be served by Southern California Edison (SCE). The default electricity and natural gas consumption values in CalEEMod include the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. CalEEMod currently incorporates California's 2016 Title 24 building energy efficiency standards. Non-residential electricity usage was reduced by 30 percent to account for the requirements of 2019 Title 24 standards (California Energy Commission 2018b).

Area Sources

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, U.S. EPA, and emission factor values provided by the local air district (CAPCOA 2017). Area source modeling assumes compliance with SCAQMD Rule 1113, which limits the VOC content of architectural coatings.

Waste Sources

GHG emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2017). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Water and Wastewater Sources

GHG emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for northern and southern California. CalEEMod does not incorporate water use reductions achieved by 2016 CALGreen (Part 11 of Title 24). New development would be subject to CalGreen, which requires a 20 percent increase in indoor water use efficiency. Thus, in order to account for compliance with CalGreen, a 20 percent reduction in indoor water use was included in the water consumption calculations for new development.

Mobile Sources

Mobile source emissions are generated by the increase in vehicle trips to and from the project site associated with operation of on-site development. Vehicle trips for the project were determined by the Traffic Impact Analysis (TIA) prepared by TJW Engineering, Inc.

NITROUS OXIDE EMISSIONS

Because CalEEMod does not calculate N₂O emissions from mobile sources, N₂O emissions were quantified using guidance from CARB (CARB 2013; see Appendix A for calculations), which states the following:

- For gasoline vehicles, use 4.16 percent of NO_x emissions (from CalEEMod) to calculate N₂O for all gasoline vehicles; and
- For diesel vehicles, use 0.3316 grams of N₂O per gallon fuel used.

CalEEMod does not list the percentage breakdown of gasoline and diesel vehicles used in the model's fleet mixes. To determine this percentage, EMFAC2014 Emissions Inventory were obtained in a spreadsheet output for the SCAQMD region, for the project's operational year (2021), using EMFAC2011 categories (CARB 2019b). The vehicle population totals for gasoline and for diesel vehicles were separately summed, and the total for each was divided by the overall total vehicles to determine their percentage.

The percentage of gasoline vehicles was then multiplied by the NO_x emissions output from CalEEMod. This result was then multiplied by the aforementioned 4.16 percent and converted to MT to result in MT N₂O per year from gasoline vehicles. The miles per gallon for diesel vehicles was obtained from the EMFAC2014 spreadsheet by dividing the VMT by fuel consumption for each diesel vehicle type, then averaging the miles per gallon for all diesel vehicle types. The miles per gallon was then converted to MT N₂O per year for diesel vehicles through the aforementioned grams of N₂O per gallon and the yearly VMT (multiplied by the percentage of diesel vehicles compared to total vehicles).

Finally, the MT N₂O per year for gasoline and diesel vehicles were added together and converted into CO₂e by using the GWP of N₂O of 265 (IPCC 2014a), and then added to the mobile source emissions for CO₂ and CH₄ output in CalEEMod.

3.2 Significance Thresholds

Air Quality

To determine whether a project would result in a significant impact to air quality, Appendix G of the *CEQA Guidelines* requires consideration of whether a project would:

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

Regional Significance Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB, shown in Table 4.

Table 4 SCAQMD Regional Significance Thresholds

Construction Thresholds	Operational Thresholds
75 pounds per day of ROG	55 pounds per day of ROG
100 pounds per day of NO _x	55 pounds per day of NO _x
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO _x	150 pounds per day of SO _x
150 pounds per day of PM ₁₀	150 pounds per day of PM ₁₀
55 pounds per day of PM _{2.5}	55 pounds per day of PM _{2.5}

Source: SCAQMD 2015

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_x, CO, PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions in construction areas up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008). As such, LSTs are typically applied only to construction emissions because the majority of operational emissions are associated with project-generated vehicle trips.

The SCAQMD provides LST lookup tables for project sites that measure one, two, or five acres. If a site is greater than five acres, SCAQMD recommends a dispersion analysis be performed. Project construction would disturb an area of approximately 4.3 acres; therefore, this analysis uses a regression calculator to determine an applicable LST based on the project site area and the LST

lookup values for two- and five-acre construction sites. LSTs are provided for receptors at a distance of 82 to 1,640 feet from the project disturbance boundary to the sensitive receptors. Construction activity would occur approximately 35 feet south of the closest sensitive receptors, an existing single-family residence. According to the SCAQMD's publication, *Final LST Methodology*, projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet. Therefore, the analysis below uses the LST values for 82 feet. In addition, the project is located in SRA-25 (Lake Elsinore). LSTs for construction in SRA-25 on a 4.3-acre site with a receptor 82 feet away are shown in Table 5.

Table 5 SCAQMD LSTs for Construction (SRA-25)

Pollutant	Allowable Emissions for a 4.3-acre Site in SRA-25 for a Receptor 82 Feet Away (lbs/day)
Gradual conversion of NO _x to NO ₂	339
CO	1,763
PM ₁₀	12
PM _{2.5}	7
Source: SCAQMD 2009	

Greenhouse Gas Emissions

Based on Appendix G of the *CEQA Guidelines*, impacts related to GHG emissions from the project would be significant if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases

In addition, *CEQA Guidelines* Section 15064.4(b) states that a lead agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions.

The City's CAP establishes quantitative targets 6.6 MT CO₂e per service population by 2020 and 4.4 MT CO₂e per service population by 2030.³ The CAP further demonstrates that these targets are sufficient to achieve GHG reduction targets set by AB 32 (1990 levels by 2020) and Executive Order S-3-05 (80 percent below 1990 levels by 2050). However, the City's CAP pre-dates passage of SB 32,

³ Service population is defined as the total number of employees and residents generated by a project.

which calls for a 40 percent reduction of GHG emissions below 1990 levels by 2030. While the City's CAP establishes a 2030 target of 4.4 MT CO₂e per service population, this target was established based on a linear trajectory of emissions reduction from 1990 levels in 2020 to 80 percent reduction below such levels in 2050. Under this trajectory, a 40 percent reduction of emissions from 1990 levels would not occur until 2035 and, consequently, this 2030 target is not sufficient to demonstrate compliance with SB 32.

Nevertheless, the City's CAP states that it is intended to "serve as the programmatic tiering document for the purposes of CEQA within the City of Lake Elsinore for GHG emissions, by which applicable projects will be reviewed. If a proposed development project can demonstrate it is consistent with the applicable emissions reduction measures included in the CAP, the programs and standards that would be implemented as a result of the CAP, the General Plan Update growth projections, the project's environmental review pertaining to GHG impacts may be streamlined as allowed by CEQA Guidelines Sections 15152 and 15183.5" (City of Lake Elsinore 2011a). Given that the City's CAP was adopted for the purposes of determining impact significance for the purposes of CEQA and that the role of land use strategies in achieving the reductions set forth by SB 32 remains unclear, this analysis determines the significance of GHG impacts based on consistency with the City's CAP and other applicable plans and policies intended to reduce GHG emissions.

CEQA Guidelines Section 15064.4(a) states that a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. Therefore, GHG emissions as estimated by CalEEMod are provided for informational purposes.

3.3 Impact Analysis

Air Quality

CEQA Appendix G Air Quality Threshold 1

Conflict with or obstruct implementation of the applicable air quality plan (*Less Than Significant*).

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. With regard to air quality planning, SCAG has prepared the RTP/SCS, a long-range transportation plan that uses growth forecasts to project trends for regional population, housing and employment growth out to 2040 to identify regional transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the 2016 AQMP.

The updated growth forecasts in SCAG's 2016 RTP/SCS estimate that the employment numbers in Lake Elsinore would be 31,700 in 2040, up 19,900 from an employment number of 11,800 in 2012 (SCAG 2016). Based on employee density factors in the Employee Density Report produced by the Southern California Association of Governments (SCAG), the proposed project could result in approximately 147 employees, as shown in Table 6. This would amount to an approximately 1 percent increase compared to 2012 employment in the city.

Table 6 Commercial Employee Generation Rates

Land Use	Employee Rate (sf)	Proposed Size (sf)	Total Employees
Regional Retail	268	36,120	135
Other Retail/Services	629	7,000	12
Total			147
Sf = square feet			
Source: Table 10A (SCAG 2001).			

The anticipated increase in employment would be within the SCAG's projected 2040 employment increase of 19,900 from 2012 and the project would not cause Lake Elsinore to exceed official regional population projections.

In addition, the AQMP provides strategies and measures to reach attainment with the thresholds for 8-hour and 1-hour ozone and PM_{2.5}. As shown in Table 7 and Table 8, the project would not generate criteria pollutant emissions that would exceed SCAQMD thresholds for ozone precursors (ROG and NO_x) and PM_{2.5}.

Given the aforementioned, the project would be consistent with the AQMP and would have a less than significant impact.

CEQA Appendix G Air Quality Threshold 2

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (*Less Than Significant*).

Pursuant to CEQA Guidelines Section 15064(h)(3), the SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. If the project's mass regional emissions do not exceed the applicable SCAQMD, then the project's criteria pollutant emissions would not be cumulatively considerable.

Construction

Table 7 summarizes the estimated maximum daily emissions (lbs) of pollutants associated with construction of the proposed project. As shown below, ROG, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions would not exceed SCAQMD regional thresholds or LSTs. Because the project would not exceed SCAQMD's regional construction thresholds or LSTs, project construction would not result in a cumulatively considerable net increase of a criteria pollutant and impacts would be less than significant. To be consistent with the assumptions made in the grading phase, it is recommended that a project measure be implemented to ensure the number of hauling trips does not exceed 107 trips per day during construction.

Table 7 Project Construction Emissions

	Maximum Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Construction Year 2020	4.2	84.9	29.0	0.2	10.5	6.5
Construction Year 2021	14.2	21.1	21.1	<0.1	1.9	1.2
Maximum Emissions	14.2	84.9	29.0	0.2	10.5	6.5
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum On-site Emissions	11.7	42.4	21.5	<0.1	8.1	4.7
SCAQMD Localized Significance Thresholds (LSTs)	N/A	339	1,763	N/A	12	7
Threshold Exceeded?	N/A	No	No	N/A	No	No

Notes: See Appendix A for modeling results. Some numbers may not add up precisely to the numbers indicated due to rounding. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Operational

Table 8 summarizes the project's operational emissions by emission source (area, energy, and mobile). As shown below, the emissions generated by operation of the proposed project would not exceed SCAQMD regional thresholds for criteria pollutants. Therefore, the project would not contribute substantially to an existing or projected air quality violation. In addition, because criteria pollutant emissions and regional thresholds are cumulative in nature, the project would not result in a cumulatively considerable net increase of criteria pollutants.

Table 8 Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	0.9	<0.1	<0.1	0	<0.1	<0.1
Energy	<0.1	0.5	0.5	<0.1	<0.1	<0.1
Mobile	5.8	27.3	60.5	0.2	15.9	4.4
Project Emissions	6.8	27.8	61.0	0.2	16.0	4.4
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: See Appendix A for modeling results. Some numbers may not add up precisely to the numbers indicated due to rounding.

CEQA Appendix G Air Quality Threshold 3

Expose sensitive receptors to substantial pollutant concentrations (*Less Than Significant*).

Toxic Air Contaminants

CONSTRUCTION

Construction-related activities would result in temporary project-generated emissions of DPM exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2017b).

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 14 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 14 months) is approximately 1.7 percent of the total exposure period used for health risk calculation. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District [BAAQMD] 2017).

The maximum PM₁₀ and PM_{2.5} emissions would occur during site preparation and grading activities. These activities would last for approximately three months. PM emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less construction equipment. While the maximum DPM emissions associated with site preparation and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent less than one percent of the total exposure period for health risk calculation. Therefore, given the aforementioned, DPM generated by project construction would not create conditions where the probability is greater than one in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. In addition, measures to reduce DPM exposure from construction activities at nearby residences are recommended. These measures include Tier 4 engine requirements (assuming availability), construction vehicle staging areas, and prohibiting the operation of on-site diesel equipment during Stage 4 Air Alerts when there is an “Unhealthy” Air Quality Index (AQI). This impact would be less than significant.

OPERATION

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and state eight-hour standard of 9.0 ppm (CARB 2016).

The SCAB is in conformance with state and federal CO standards, and most air quality monitoring stations no longer report CO levels. No stations in the vicinity of the project site have monitored CO since 2012. In 2012, the Lake Elsinore station detected an 8-hour maximum CO concentration of 0.5 ppm, which is substantially below the state and federal standards (CARB 2019a). The proposed project would result in CO emissions of approximately 61 pounds per day, well below the 550 pounds per day threshold. Based on the low background level of CO in the project area, improving vehicle emissions standards for new cars in accordance with state and federal regulations, and the project's low level of operational CO emissions, the project would not create new hotspots or contribute substantially to existing hotspots, and impacts would be less than significant.

CEQA Appendix G Air Quality Threshold 4

Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (*Less Than Significant*).

For construction activities, odors would be temporary in nature and are subject to SCAQMD Rule 402, *Nuisance*. Construction activities would be temporary and transitory and associated odors would cease upon construction completion. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

Common sources of operational odor complaints include sewage treatment plants, landfills, recycling facilities, and agricultural uses. The proposed project, a commercial retail and restaurant development, would not include any of these uses. Solid waste generated by the proposed on-site uses would be stored on-site in four enclosed trash areas and collected by a contracted waste hauler, thereby managing and collecting on-site waste in a manner to prevent the proliferation of odors. Operational odor impacts would be less than significant.

Greenhouse Gas Emissions

CEQA Appendix G Greenhouse Gas Emissions Threshold 1

Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (*Less Than Significant*).

CEQA Appendix G Greenhouse Gas Emissions Threshold 2

Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (*Less Than Significant*).

This section discusses GHG emissions associated with construction emissions and operation emissions from the project. As described in Section 3.2, *Significance Thresholds*, the determination of significance with respect to GHG impacts is based on consistency with applicable plans and policies. Emissions generated by the project have been quantified and are presented for informational purposes.

Construction Emissions

It was assumed that construction activity would begin in September 2020 with completion by September 2021. As shown in Table 9, construction activity for the project would generate an estimated 897 MT CO₂e. When amortized over a 30-year period, construction of the project would generate approximately 30 MT CO₂e per year.

Table 9 Estimated Construction Emissions of Greenhouse Gases

Construction Year	Annual Emissions MT CO ₂ e
2020	608.7
2021	288.0
Total	896.7
Amortized over 30 years	29.9

Notes: Emissions modeling was completed using CalEEMod. See Appendix A for modeling results.

Operational and Total Project Emissions

Table 10 combines the construction and operational GHG emissions associated with development of the project. As shown, annual emissions from the proposed project would be approximately 3,843 MT CO₂e, or approximately 0.4 percent of Lake Elsinore's 2020 GHG emissions (1,064,565 MT CO₂e) as projected in the City's CAP (City of Lake Elsinore 2011a).

Table 10 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions MT CO ₂ e
Construction	29.9
Operational	
Area	<0.1
Energy	344.3
Solid Waste	61.0
Water	27.5
Mobile	
CO ₂ and CH ₄	3,329.1
N ₂ O	51.0
Total Emissions	3,842.8

See Appendix A for CalEEMod results and N₂O mobile emissions modeling.

Based on the estimated number of employees shown in Table 6, the project would produce 26.1 MT CO₂e per service population per year, which is higher than Lake Elsinore's city-wide efficiency-based target of 4.4 MT CO₂e per service population per year in the CAP. However, according to the CAP, if projects are consistent with General Plan and CAP Consistency Checklist, then the project would be consistent with the CAP and the environmental review pertaining to GHG impacts may be

streamlined. As discussed below under Consistency with Applicable Plans and Policies, the project is consistent with the CAP Consistency Checklist. In addition, mobile emissions account for 80 percent of total project emissions as summarized in Table 10. The project would involve construction of neighborhood commercial development intended to serve nearby residents of the surrounding community. The project would potentially reduce travel by these residents to further retail destinations, either elsewhere in Lake Elsinore or in neighboring communities. As a result, mobile emissions generated by the project would not necessarily be new emissions, but rather existing emissions associated with travel to other, more distant retail services that would instead be captured by the project.

Consistency with Applicable Plans and Policies

The principal state plan and policy adopted to reduce GHG emissions is AB 32, the California Global Warming Solutions Act of 2006, and the follow up, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. The 2017 Scoping Plan, which outlines a framework to achieve SB 32's 2030 target, emphasizes innovation, adoption of existing technology, and strategic investment to support its strategies. Statewide plans and regulations in support of these strategies, such as GHG emissions standards for vehicles (AB 1493), the Low Carbon Fuel Standard, and regulations requiring an increasing fraction of electricity to be generated from renewable sources, are being implemented at the statewide level; as such, compliance at a project level would occur as implementation continues statewide.

As mentioned above, Senate Bill 375, signed in August 2008, is a state-level policy directing each of California's 18 major MPO to prepare a SCS that contains a growth strategy to meet emission targets for inclusion in the RTP. The applicable MPO for the project site is SCAG, and project consistency with the goals contained in SCAG's 2016-2040 RTP/SCS is discussed below.

SCAG 2016-2040 RTP/SCS

SCAG's 2016-2040 RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development to comply with SB 375. The proposed commercial retail project would not conflict with any of the SCAG's 2016-2040 RTP/SCS goals, as outlined in Table 11.

Table 11 Consistency with Applicable SCAG RTP/SCS GHG Emission Reduction Strategies

Strategy/Action	Project Consistency
Land Use and Transportation	
<i>Plan for growth around livable corridors.</i> The Livable Corridors strategy seeks to create neighborhood retail nodes that would be walking and biking destinations by integrating three different planning components: 1. Transit improvements 2. Active transportation improvements (i.e., improved safety for walking and biking) 3. Land use policies that include the development of mixed-use retail centers at key nodes and better integrate different types of retail uses.	Consistent. The project site is located on the southern end of a commercial corridor near existing single-family, large lot neighborhoods. There is limited commercial services in the area and this project would provide additional local-serving commercial retail options for nearby residents, which would shorten vehicle trip lengths and reduce VMT. The project would also add a sidewalk and pedestrian facilities along Lakeshore Drive where there currently is none.
<i>Provide more options for short trips.</i> 38 percent of all trips in the SCAG region are less than three miles. The 2016 RTP/SCS provides two strategies to promote the use of active transport for short trips. Neighborhood Mobility Areas are meant to reduce short trips in a suburban setting, while “complete communities” support the creation of mixed-use districts in strategic growth areas and are applicable to an urban setting.	Consistent. As detailed above, the project would provide retail and food services closer to existing large lot, single-family residences. This would promote the reduction in trips by providing services within walking distance from these residences. In addition, the project is 0.3 miles from the Riverside FS Lakeshore Bus Stop, which would allow for easy access to public transportation for employees and other customers.
Transit Initiatives	
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.	Consistent. The project would be developed approximately 0.3 miles (walking distance) from the Riverside FS Lakeshore Bus Stop on Riverside Transit Agency Route 8. This would allow for easy access to public transportation for project customers and employees to reduce VMT.
Other Initiatives	
Reduce emissions resulting from a project through implementation of project features, project design, or other measures. Incorporate design measures to reduce energy consumption and increase use of renewable energy.	Consistent. The design and implementation of the proposed project would comply with all requirements of the 2019 Title 24 standards, which include measures to reduce emissions.
Source: SCAG 2016	

Lake Elsinore Climate Action Plan (CAP)

The City’s CAP, adopted in 2011, certified that the City’s target is consistent with AB 32’s 2020 goals. The City CAP ensures that the City will provide local GHG reductions that will complement state efforts to reduce GHG emissions to the AB 32 target by 2020 and the Executive Order S-3-05 target by 2030. The proposed commercial project with retail and restaurant uses would not conflict with the applicable CAP reduction measures, as shown in Table 12.

Table 12 Consistency with Applicable Lake Elsinore CAP Measures

Measure	Project Consistency
Measure T-1.2: Pedestrian Infrastructure. Through the development review process, require the installation of sidewalks along new and reconstructed streets. Also require new subdivisions and large developments to provide sidewalks or paths to internally link all uses where applicable and provide connections to neighborhood activity centers, major destinations, and transit facilities contiguous with the project site; implement through conditions of approval.	Consistent. The project would be required to provide sidewalks along Lakeshore Drive and Manning Street, which would be reviewed by the City for compliance with adopted standards and specifications.
Measure T-2.1: Designated Parking for Fuel-Efficient Vehicles. Revise the Municipal Code to require that new nonresidential development designate 10% of total parking spaces for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles (consistent with CalGreen Tier 1, Sections A5.106.5.1 and A5.106.5.3), and implement through conditions of approval. Parking stalls shall be marked "Clean Air Vehicle."	Consistent. The project would provide fuel-efficient parking spaces in compliance with the Municipal Code and conditions of approval applied to the project.
Measure E-1.1: Tree Planting Program. Through the development review process, require new development to plant at minimum one 15-gallon non-deciduous, umbrella-form tree per 30 linear feet of boundary length near buildings, per the Municipal Code. Trees shall be planted in strategic locations around buildings or to shade pavement in parking lots and streets.	Consistent. The project would comply with all applicable Municipal Code policies related to tree planting. The project would include a number of street trees and trees throughout the parking lot and adjacent to proposed structures.
Measure E-1.2: Cool Roof Requirements. Amend the City Municipal Code to require new non-residential development to use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index (SRI) consistent with CalGreen Tier 1 values (Table A5.106.11.2.1), and implement through conditions of approval.	Consistent. The project's roofing material would be reviewed and approved for compliance with the City's Municipal Code. The proposed Project elements would be required to comply with the City ordinances and conditions of approval. As such, the proposed project would not conflict with this measure.
Measure E-3.2: Energy Efficient Street and Traffic Signal Lights. Work with Southern California Edison to replace existing high-pressure sodium streetlights and traffic lights with high efficiency alternatives, such as Low Emitting Diode (LED) lights. Replace existing City owned traffic lights with LED lights. Require any new street and traffic lights to be LED and implement through conditions of approval.	Consistent. The project would be required to comply with the City's conditions of approval related to new streetlights.
Measure E-4.1: Landscaping Ordinance. Through the development review process, enforce the City's Assembly Bill 1881 Landscaping Ordinance; implement through conditions of approval.	Consistent. The project's landscape plan would be reviewed and approved by the City's Planning and Public Works Department for compliance with Assembly Bill 1881 and the City's Landscaping Ordinance.
Measure S-1.4: Construction and Demolition Waste Diversion. Amend the Municipal Code to require development projects to divert to recycle or salvage nonhazardous construction and demolition debris generated at the site, resulting in at least a 65% reduction by 2020 (consistent with CalGreen Tier 1, Section A5.408.3.1). Require all new projects to be accompanied by a waste management plan for the project and a copy of the completed waste management report shall be provided upon completion.	Consistent. A Waste Management Plan would be prepared for the project, reviewed by the City for consistency with the City's Municipal Code, and be subject to City approval.

Given the aforementioned, the project is consistent with state and local policies aimed at reducing GHG emissions. Therefore, the project would have a less than significant impact with respect to GHG emissions and climate change.

4 Conclusions and Recommendations

Construction and operation of the project would not exceed any established air quality or GHG emissions thresholds of conflict with any applicable plans or policies relating to air quality or reduction of GHG emissions. Furthermore, the project would comply with all applicable air quality regulatory requirements, as detailed in Section 1, *Project Description and Impact Summary*. Such measures include fugitive dust control pursuant to SCAQMD Rule 403, use of low-VOC architectural coatings pursuant to SCAQMD Rule 1113, engine idling restrictions pursuant to Section 2485, Title 13 of the California Code of Regulations, and engine emissions standards pursuant to Section 93115, Title 17 of the California Code of Regulations. For consistency with the grading phase assumptions, the following measures are recommended for construction activities:

4.1 Maximum Daily Hauling Trips

The number of hauling trips during construction activities, including exporting material off-site during grading, shall not exceed 107 daily trips.

4.2 DPM Reduction Measures

In order to reduce DPM exposure from construction activities at nearby residences, the following measures are recommended:

- All off-road construction equipment should be fitted with Tier 4 engines
- Construction vehicle staging areas should be located as far as possible from nearby residences
- The operation of on-site diesel equipment should be suspended during Stage 4 Air Alerts when SCAQMD identifies the AQI as “Unhealthy:” <http://www.aqmd.gov/home/air-quality>

As detailed above, with adherence to existing regulatory requirements, the project would not result in any significant air quality or GHG related impacts.

5 References

- Bay Area Air Quality Management District (BAAQMD). 2017. *California Environmental Quality Act Air Quality Guidelines*. May.
- California Air Pollution Control Officers Association (CAPCOA). 2017. *California Emissions Estimator Model User's Guide Version 2016.3.2*. November 2017.
- California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. Available at: <https://www.arb.ca.gov/ch/handbook.pdf>
- _____. 2011. *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider the "LEV III" Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards and Test Procedures and to the On-Board Diagnostic System Requirements for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, and to the Evaporative Emission Requirements for Heavy-Duty Vehicles*. December 7, 2011. Available at: <http://www.arb.ca.gov/regact/2012/leviiighg2012/levisor.pdf>
- _____. 2013. *Mobile Source Emission Inventory – EMFAC2011 Frequently Asked Questions*. January. Available at: <https://www.arb.ca.gov/msei/emfac2011-faq.htm>
- _____. 2016. *Ambient Air Quality Standards*. Last modified: May 4, 2016. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf> (accessed September 2019).
- _____. 2017a. *California's 2017 Climate Change Scoping Plan*. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf
- _____. 2017b. *2017 Amendments Health Risk Analysis*.
- _____. 2018a. *California Greenhouse Gas Emission Inventory – 2018 Edition*. Last modified: August 26, 2019. Available at: <https://www.arb.ca.gov/cc/inventory/data/data.htm> (accessed September 2019).
- _____. 2018b. *2020 Business-as-Usual (BAU) Emissions Projection – 2014 Edition*. Last modified: August 12, 2019. Available at: <http://www.arb.ca.gov/cc/inventory/data/bau.htm> (accessed September 2019).
- _____. 2018c. *AB 32 Scoping Plan Website*. Updated January 8, 2018. Accessed June 2019. Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
- _____. 2019a. *iADAM Air Quality Data Statistics Top 4 Summary*. Available at: <https://www.arb.ca.gov/adam/topfour/topfour1.php> (accessed September 2019).
- _____. 2019b. *EMFAC 2014 Web Database*. Available at: <https://www.arb.ca.gov/emfac/2014/>
- California Climate Action Registry (CCAR). 2009. *General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1*.
- California Department of Water Resources. 2008. *Managing an Uncertain Future: Climate Change Adaption Strategies for California's Water*. October 2008. Available at: <http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf>

- California Energy Commission. 2018a. *News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation*. Available at: http://www.energy.ca.gov/releases/2018_releases/2018-05-09_building_standards_adopted_nr.html
- 2018b. *2019 Building Energy Efficiency Standards*. March. Available at: https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf (accessed September 2019)
- California Natural Resources Agency. 2009. *2009 California Climate Adaptation Strategy*. March 2009. Available at: http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf (accessed September 2019).
- _____. 2014a. *Climate Change 2014: Synthesis Report*. Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva, Switzerland, 151 pp.
- _____. 2014b. *Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers* - Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- _____. 2018. *Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. <https://www.ipcc.ch/sr15/> (accessed September 2019).
- Iowa Environmental Mesonet. 2019. *Murrieta Station Data*. Available at: https://mesonet.agron.iastate.edu/sites/site.php?station=F70&network=CA_ASOS
- Lake Elsinore, City of. 2011a. *Climate Action Plan*. Adopted December 13, 2011.
- _____. 2011b. *General Plan*. December 13, 2011.
- Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Available at: <https://oehha.ca.gov/air/cnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>.
- Parmesan, C. 2006. *Ecological and Evolutionary Responses to Recent Climate Change*.
- State of California. 2018a. *California's Fourth Climate Change Assessment Statewide Summary Report*. August 27, 2018. <http://www.climateassessment.ca.gov/state/> (accessed September 2019).
- _____. 2018b. *California's Fourth Climate Change Assessment Los Angeles Region Report*. <http://www.climateassessment.ca.gov/regions/docs/20180928-LosAngeles.pdf> (accessed September 2019).
- South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook*. April 1993.

- _____. 2008. *Final Localized Significance Threshold Methodology*. July 2008.
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf> (accessed September 2019).
- _____. 2009. *Appendix C – Mass Rate LST Look-up Tables*. Last modified: October 21, 2009.
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2> (accessed September 2019).
- _____. 2015. *SCAQMD Air Quality Significance Thresholds*. Last modified: March 2015.
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf> (accessed September 2019).
- _____. 2016. *National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin*. Available at:
<http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2> (accessed September 2019).
- _____. 2017. *Final 2016 Air Quality Management Plan (AQMP)*. March 3, 2017.
- Southern California Association of Governments (SCAG). 2016. *2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*. Demographics and Growth Forecast Appendix. April 7, 2016.
- United States Environmental Protection Agency (U.S. EPA). 2018. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*. U. S. EPA #430-R-18-003. April 2018. Available at:
https://www.epa.gov/sites/production/files/2018-01/documents/2018_complete_report.pdf
- _____. 2019. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2017*. EPA 430-R-19-001. Published April 11, 2019. Available at: <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf>
- Western Region Climate Center. 2016. Elsinore, California 042805, Period of Record Monthly Climate Summary. Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805>
- World Meteorological Organization (WMO). 2013. *A summary of current and climate change findings and figures: a WMO information note*. March 2013.
https://library.wmo.int/opac/index.php?lvl=notice_display&id=15892#.Wt9-Z8gvzIU (accessed September 2019).

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Appendix A

CalEEMod Output Files and N₂O Emissions Calculations

Lakeview Plaza - South Coast AQMD Air District, Winter

Lakeview Plaza
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	207.00	Space	3.00	82,800.00	0
High Turnover (Sit Down Restaurant)	7.00	1000sqft	0.16	7,000.00	0
Strip Mall	36.12	1000sqft	0.83	36,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Lakeview Plaza - South Coast AQMD Air District, Winter

Project Characteristics - Energy Intensity Factors remain at defaults.

Land Use - Pursuant to project site plans.

Construction Phase - Site is vacant (demolition not anticipated). Site preparation and building phases expanded to account for substantial grading.

Grading - Material exported based on preliminary grading plan.

Architectural Coating - Assumed compliance with SCAQMD Rule 1113.

Vehicle Trips - Weekday and weekend trip generation rates adjusted based on rates used in Traffic Study. Pass by information also adjusted based on TIA

Area Coating - Assumed compliance with SCAQMD Rule 1113

Energy Use - Title 24 energy use reduced by 30 percent for compliance with 2019 Title 24 standards for commercial uses.

Water And Wastewater - Indoor water consumption reduced by 20 percent based on compliance with 2016 Title 24 standards.

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403

Mobile Land Use Mitigation - Site would provide sidewalk improvements along Lakeshore Drive and Manning Street. Project site is 0.3 mile from Riverside/Lakeshore Bus Stop.

Area Mitigation - Assumed compliance with SCAQMD Rule 1113.

Lakeview Plaza - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	8.00	50.00
tblConstructionPhase	NumDays	5.00	14.00
tblEnergyUse	T24E	12.38	8.67
tblEnergyUse	T24E	4.58	3.21
tblGrading	MaterialExported	0.00	84,910.00
tblLandUse	LotAcreage	1.86	3.00
tblVehicleTrips	PB_TP	43.00	20.00
tblVehicleTrips	PB_TP	15.00	10.00
tblVehicleTrips	PR_TP	37.00	60.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	158.37	112.18
tblVehicleTrips	ST_TR	42.04	83.28
tblVehicleTrips	SU_TR	131.84	112.18
tblVehicleTrips	SU_TR	20.43	83.28
tblVehicleTrips	WD_TR	127.15	112.18
tblVehicleTrips	WD_TR	44.32	83.28
tblWater	IndoorWaterUseRate	2,124,735.99	1,699,788.79
tblWater	IndoorWaterUseRate	2,675,499.48	2,140,399.58

Lakeview Plaza - South Coast AQMD Air District, Winter

2.0 Emissions Summary**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.1653	84.9478	28.9793	0.1928	18.2675	2.1989	20.4664	9.9840	2.0230	12.0071	0.0000	20,501.51 95	20,501.51 95	2.1797	0.0000	20,556.01 3
2021	14.1965	21.1323	20.9220	0.0412	0.7939	1.0617	1.8556	0.2136	1.0038	1.2174	0.0000	4,001.4114	4,001.4114	0.6889	0.0000	4,018.633 3
Maximum	14.1965	84.9478	28.9793	0.1928	18.2675	2.1989	20.4664	9.9840	2.0230	12.0071	0.0000	20,501.51 95	20,501.51 95	2.1797	0.0000	20,556.01 13

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	4.1653	84.9478	28.9793	0.1928	8.3310	2.1989	10.5300	4.5222	2.0230	6.5452	0.0000	20,501.51 95	20,501.51 95	2.1797	0.0000	20,556.01 3
2021	14.1965	21.1323	20.9220	0.0412	0.7939	1.0617	1.8556	0.2136	1.0038	1.2174	0.0000	4,001.4114	4,001.4114	0.6889	0.0000	4,018.633 3
Maximum	14.1965	84.9478	28.9793	0.1928	8.3310	2.1989	10.5300	4.5222	2.0230	6.5452	0.0000	20,501.51 95	20,501.51 95	2.1797	0.0000	20,556.01 13

Lakeview Plaza - South Coast AQMD Air District, 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	52.13	0.00	44.51	53.56	0.00	41.30	0.00	0.00	0.00	0.00	0.00	0.00

Lakeview Plaza - South Coast AQMD Air District, 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	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Energy	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132
Mobile	5.6047	28.0886	60.8083	0.2057	16.7540	0.1738	16.9278	4.4828	0.1623	4.6451		20,944.3236	20,944.3236	1.1490		20,973.0475
Total	6.6070	28.6245	61.2839	0.2089	16.7540	0.2146	16.9686	4.4828	0.2031	4.6859		21,587.1717	21,587.1717	1.1614	0.0118	21,619.7190

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	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Energy	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132
Mobile	5.4993	27.3052	58.1879	0.1945	15.7571	0.1649	15.9220	4.2161	0.1540	4.3701		19,809.4469	19,809.4469	1.1012		19,836.9762
Total	6.5016	27.8411	58.6635	0.1977	15.7571	0.2057	15.9628	4.2161	0.1948	4.4109		20,452.2950	20,452.2950	1.1136	0.0118	20,483.6477

Lakeview Plaza - South Coast AQMD Air District, 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	1.60	2.74	4.28	5.34	5.95	4.14	5.93	5.95	4.09	5.87	0.00	5.26	5.26	4.11	0.00	5.25

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/20/2020	5	14	
2	Grading	Grading	7/21/2020	9/28/2020	5	50	
3	Building Construction	Building Construction	9/29/2020	8/16/2021	5	230	
4	Architectural Coating	Architectural Coating	8/4/2021	8/27/2021	5	18	
5	Paving	Paving	8/17/2021	9/9/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 64,680; Non-Residential Outdoor: 21,560; Striped Parking Area: 4,968 (Architectural Coating – sqft)

OffRoad Equipment

Lakeview Plaza - South Coast AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
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	10,614.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Lakeview Plaza - South Coast AQMD Air District, Winter

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Lakeview Plaza - South Coast AQMD Air District, Winter

3.2 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	0.0888	0.0599	0.6626	1.9300e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		192.6657	192.6657	5.5300e-003		192.8038
Total	0.0888	0.0599	0.6626	1.9300e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		192.6657	192.6657	5.5300e-003		192.8038

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	8.1298	2.1974	10.3272	4.4688	2.0216	6.4904	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Lakeview Plaza - South Coast AQMD Air District, Winter

3.2 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	0.0888	0.0599	0.6626	1.9300e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		192.6657	192.6657	5.5300e-003		192.8038
Total	0.0888	0.0599	0.6626	1.9300e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		192.6657	192.6657	5.5300e-003		192.8038

3.3 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					6.7444	0.0000	6.7444	3.3966	0.0000	3.3966			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
Total	2.4288	26.3859	16.0530	0.0297	6.7444	1.2734	8.0178	3.3966	1.1716	4.5681		2,872.4851	2,872.4851	0.9290		2,895.7106

Lakeview Plaza - South Coast AQMD Air District, Winter

3.3 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	1.6586	58.5120	12.3742	0.1616	3.7094	0.1891	3.8985	1.0166	0.1809	1.1975		17,468.4796	17,468.4796	1.2461		17,499.6309
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0500	0.5521	1.6100e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		160.5547	160.5547	4.6000e-003		160.6699
Total	1.7326	58.5619	12.9264	0.1632	3.8771	0.1904	4.0674	1.0610	0.1821	1.2431		17,629.0343	17,629.0343	1.2507		17,660.3007

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0350	0.0000	3.0350	1.5285	0.0000	1.5285			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
Total	2.4288	26.3859	16.0530	0.0297	3.0350	1.2734	4.3084	1.5285	1.1716	2.7000	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106

Lakeview Plaza - South Coast AQMD Air District, Winter

3.3 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	1.6586	58.5120	12.3742	0.1616	3.7094	0.1891	3.8985	1.0166	0.1809	1.1975		17,468.4796	17,468.4796	1.2461		17,499.6309
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0500	0.5521	1.6100e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		160.5547	160.5547	4.6000e-003		160.6699
Total	1.7326	58.5619	12.9264	0.1632	3.8771	0.1904	4.0674	1.0610	0.1821	1.2431		17,629.0343	17,629.0343	1.2507		17,660.3007

3.4 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Winter

3.4 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	0.0722	2.2014	0.5850	5.2500e-003	0.1344	0.0111	0.1455	0.0387	0.0106	0.0493		559.6769	559.6769	0.0389		560.6485
Worker	0.2418	0.1632	1.8036	5.2600e-003	0.5477	4.1500e-003	0.5519	0.1453	3.8300e-003	0.1491		524.4788	524.4788	0.0150		524.8549
Total	0.3140	2.3645	2.3887	0.0105	0.6821	0.0152	0.6973	0.1839	0.0144	0.1984		1,084.1557	1,084.1557	0.0539		1,085.5033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Winter

3.4 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	0.0722	2.2014	0.5850	5.2500e-003	0.1344	0.0111	0.1455	0.0387	0.0106	0.0493		559.6769	559.6769	0.0389		560.6485
Worker	0.2418	0.1632	1.8036	5.2600e-003	0.5477	4.1500e-003	0.5519	0.1453	3.8300e-003	0.1491		524.4788	524.4788	0.0150		524.8549
Total	0.3140	2.3645	2.3887	0.0105	0.6821	0.0152	0.6973	0.1839	0.0144	0.1984		1,084.1557	1,084.1557	0.0539		1,085.5033

3.4 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Winter

3.4 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	0.0615	1.9965	0.5319	5.2100e-003	0.1344	4.1600e-003	0.1386	0.0387	3.9800e-003	0.0427		555.5554	555.5554	0.0372		556.4847
Worker	0.2260	0.1468	1.6589	5.0900e-003	0.5477	4.0300e-003	0.5517	0.1453	3.7100e-003	0.1490		507.4773	507.4773	0.0136		507.8173
Total	0.2875	2.1434	2.1907	0.0103	0.6821	8.1900e-003	0.6903	0.1839	7.6900e-003	0.1916		1,063.0327	1,063.0327	0.0508		1,064.3020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Winter

3.4 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	0.0615	1.9965	0.5319	5.2100e-003	0.1344	4.1600e-003	0.1386	0.0387	3.9800e-003	0.0427		555.5554	555.5554	0.0372		556.4847
Worker	0.2260	0.1468	1.6589	5.0900e-003	0.5477	4.0300e-003	0.5517	0.1453	3.7100e-003	0.1490		507.4773	507.4773	0.0136		507.8173
Total	0.2875	2.1434	2.1907	0.0103	0.6821	8.1900e-003	0.6903	0.1839	7.6900e-003	0.1916		1,063.0327	1,063.0327	0.0508		1,064.3020

3.5 Architectural Coating - 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					
Archit. Coating	11.7430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	11.9619	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Lakeview Plaza - South Coast AQMD Air District, Winter

3.5 Architectural Coating - 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	0.0461	0.0300	0.3385	1.0400e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.5668	103.5668	2.7800e-003		103.6362
Total	0.0461	0.0300	0.3385	1.0400e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.5668	103.5668	2.7800e-003		103.6362

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.7430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	11.9619	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Lakeview Plaza - South Coast AQMD Air District, Winter

3.5 Architectural Coating - 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	0.0461	0.0300	0.3385	1.0400e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.5668	103.5668	2.7800e-003		103.6362
Total	0.0461	0.0300	0.3385	1.0400e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.5668	103.5668	2.7800e-003		103.6362

3.6 Paving - 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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.4367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5306	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270

Lakeview Plaza - South Coast AQMD Air District, Winter

3.6 Paving - 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	0.0922	0.0599	0.6771	2.0800e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		207.1336	207.1336	5.5500e-003		207.2724
Total	0.0922	0.0599	0.6771	2.0800e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		207.1336	207.1336	5.5500e-003		207.2724

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.4367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5306	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270

Lakeview Plaza - South Coast AQMD Air District, Winter

3.6 Paving - 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	0.0922	0.0599	0.6771	2.0800e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		207.1336	207.1336	5.5500e-003		207.2724
Total	0.0922	0.0599	0.6771	2.0800e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		207.1336	207.1336	5.5500e-003		207.2724

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

Increase Transit Accessibility

Improve Pedestrian Network

Lakeview Plaza - South Coast AQMD Air District, 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	5.4993	27.3052	58.1879	0.1945	15.7571	0.1649	15.9220	4.2161	0.1540	4.3701		19,809.44 69	19,809.44 69	1.1012		19,836.97 62
Unmitigated	5.6047	28.0886	60.8083	0.2057	16.7540	0.1738	16.9278	4.4828	0.1623	4.6451		20,944.32 36	20,944.32 36	1.1490		20,973.04 75

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	785.26	785.26	785.26	1,642,920	1,545,167
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,008.07	3,008.07	3,008.07	6,236,465	5,865,395
Total	3,793.33	3,793.33	3,793.33	7,879,385	7,410,562

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
High Turnover (Sit Down)	16.60	8.40	6.90	8.50	72.50	19.00	60	20	20
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	40	10

4.4 Fleet Mix

Lakeview Plaza - South Coast AQMD Air District, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Parking Lot	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Strip Mall	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

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	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132
NaturalGas Unmitigated	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132

Lakeview Plaza - South Coast AQMD Air District, 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					
High Turnover (Sit Down Restaurant)	5244.05	0.0566	0.5141	0.4319	3.0800e-003		0.0391	0.0391		0.0391	0.0391		616.9476	616.9476	0.0118	0.0113	620.6138
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	219.689	2.3700e-003	0.0215	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003		25.8457	25.8457	5.0000e-004	4.7000e-004	25.9993
Total		0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132

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					
High Turnover (Sit Down Restaurant)	5.24405	0.0566	0.5141	0.4319	3.0800e-003		0.0391	0.0391		0.0391	0.0391		616.9476	616.9476	0.0118	0.0113	620.6138
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.219689	2.3700e-003	0.0215	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003		25.8457	25.8457	5.0000e-004	4.7000e-004	25.9993
Total		0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132

6.0 Area Detail

Lakeview Plaza - South Coast AQMD Air District, Winter

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Unmitigated	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584

Lakeview Plaza - South Coast AQMD Air District, 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	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8831					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3900e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Total	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584

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	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8831					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3900e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Total	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584

7.0 Water Detail

Lakeview Plaza - South Coast AQMD Air District, Winter

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**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

Lakeview Plaza - South Coast AQMD Air District, Summer

Lakeview Plaza
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	207.00	Space	3.00	82,800.00	0
High Turnover (Sit Down Restaurant)	7.00	1000sqft	0.16	7,000.00	0
Strip Mall	36.12	1000sqft	0.83	36,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Lakeview Plaza - South Coast AQMD Air District, Summer

Project Characteristics - Energy Intensity Factors remain at defaults.

Land Use - Pursuant to project site plans.

Construction Phase - Site is vacant (demolition not anticipated). Site preparation and building phases expanded to account for substantial grading.

Grading - Material exported based on preliminary grading plan.

Architectural Coating - Assumed compliance with SCAQMD Rule 1113.

Vehicle Trips - Weekday and weekend trip generation rates adjusted based on rates used in Traffic Study. Pass by information also adjusted based on TIA

Area Coating - Assumed compliance with SCAQMD Rule 1113

Energy Use - Title 24 energy use reduced by 30 percent for compliance with 2019 Title 24 standards for commercial uses.

Water And Wastewater - Indoor water consumption reduced by 20 percent based on compliance with 2016 Title 24 standards.

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403

Mobile Land Use Mitigation - Site would provide sidewalk improvements along Lakeshore Drive and Manning Street. Project site is 0.3 mile from Riverside/Lakeshore Bus Stop.

Area Mitigation - Assumed compliance with SCAQMD Rule 1113.

Lakeview Plaza - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	8.00	50.00
tblConstructionPhase	NumDays	5.00	14.00
tblEnergyUse	T24E	12.38	8.67
tblEnergyUse	T24E	4.58	3.21
tblGrading	MaterialExported	0.00	84,910.00
tblLandUse	LotAcreage	1.86	3.00
tblVehicleTrips	PB_TP	43.00	20.00
tblVehicleTrips	PB_TP	15.00	10.00
tblVehicleTrips	PR_TP	37.00	60.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	158.37	112.18
tblVehicleTrips	ST_TR	42.04	83.28
tblVehicleTrips	SU_TR	131.84	112.18
tblVehicleTrips	SU_TR	20.43	83.28
tblVehicleTrips	WD_TR	127.15	112.18
tblVehicleTrips	WD_TR	44.32	83.28
tblWater	IndoorWaterUseRate	2,124,735.99	1,699,788.79
tblWater	IndoorWaterUseRate	2,675,499.48	2,140,399.58

Lakeview Plaza - South Coast AQMD Air District, Summer

2.0 Emissions Summary**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.1579	84.2018	28.1611	0.1960	18.2675	2.1989	20.4664	9.9840	2.0230	12.0071	0.0000	20,840.20 02	20,840.20 02	2.1282	0.0000	20,893.40 40
2021	14.1703	21.1234	21.0907	0.0418	0.7939	1.0616	1.8555	0.2136	1.0037	1.2173	0.0000	4,060.300 7	4,060.300 7	0.6875	0.0000	4,077.488 4
Maximum	14.1703	84.2018	28.1611	0.1960	18.2675	2.1989	20.4664	9.9840	2.0230	12.0071	0.0000	20,840.20 02	20,840.20 02	2.1282	0.0000	20,893.40 40

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	4.1579	84.2018	28.1611	0.1960	8.3310	2.1989	10.5300	4.5222	2.0230	6.5452	0.0000	20,840.20 02	20,840.20 02	2.1282	0.0000	20,893.40 40
2021	14.1703	21.1234	21.0907	0.0418	0.7939	1.0616	1.8555	0.2136	1.0037	1.2173	0.0000	4,060.300 7	4,060.300 7	0.6875	0.0000	4,077.488 4
Maximum	14.1703	84.2018	28.1611	0.1960	8.3310	2.1989	10.5300	4.5222	2.0230	6.5452	0.0000	20,840.20 02	20,840.20 02	2.1282	0.0000	20,893.40 40

Lakeview Plaza - South Coast AQMD Air District, 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	52.13	0.00	44.51	53.56	0.00	41.30	0.00	0.00	0.00	0.00	0.00	0.00

Lakeview Plaza - South Coast AQMD Air District, 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	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Energy	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132
Mobile	5.9137	27.7760	63.4869	0.2176	16.7540	0.1723	16.9262	4.4828	0.1608	4.6436		22,154.8337	22,154.8337	1.1353		22,183.2156
Total	6.9160	28.3119	63.9625	0.2209	16.7540	0.2131	16.9670	4.4828	0.2016	4.6844		22,797.6818	22,797.6818	1.1478	0.0118	22,829.8872

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	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Energy	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132
Mobile	5.8049	27.0344	60.5409	0.2059	15.7571	0.1634	15.9205	4.2161	0.1525	4.3686		20,959.7879	20,959.7879	1.0859		20,986.9357
Total	6.8073	27.5703	61.0165	0.2091	15.7571	0.2042	15.9613	4.2161	0.1933	4.4094		21,602.6360	21,602.6360	1.0984	0.0118	21,633.6072

Lakeview Plaza - South Coast AQMD Air District, 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	1.57	2.62	4.61	5.33	5.95	4.17	5.93	5.95	4.12	5.87	0.00	5.24	5.24	4.30	0.00	5.24

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/20/2020	5	14	
2	Grading	Grading	7/21/2020	9/28/2020	5	50	
3	Building Construction	Building Construction	9/29/2020	8/16/2021	5	230	
4	Architectural Coating	Architectural Coating	8/4/2021	8/27/2021	5	18	
5	Paving	Paving	8/17/2021	9/9/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 64,680; Non-Residential Outdoor: 21,560; Striped Parking Area: 4,968 (Architectural Coating – sqft)

OffRoad Equipment

Lakeview Plaza - South Coast AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
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	10,614.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Lakeview Plaza - South Coast AQMD Air District, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Lakeview Plaza - South Coast AQMD Air District, Summer

3.2 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	0.0814	0.0547	0.7359	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.9951	205.9951	5.9200e-003		206.1432
Total	0.0814	0.0547	0.7359	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.9951	205.9951	5.9200e-003		206.1432

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	8.1298	2.1974	10.3272	4.4688	2.0216	6.4904	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Lakeview Plaza - South Coast AQMD Air District, Summer

3.2 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	0.0814	0.0547	0.7359	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.9951	205.9951	5.9200e-003		206.1432
Total	0.0814	0.0547	0.7359	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.9951	205.9951	5.9200e-003		206.1432

3.3 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					6.7444	0.0000	6.7444	3.3966	0.0000	3.3966			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
Total	2.4288	26.3859	16.0530	0.0297	6.7444	1.2734	8.0178	3.3966	1.1716	4.5681		2,872.4851	2,872.4851	0.9290		2,895.7106

Lakeview Plaza - South Coast AQMD Air District, Summer

3.3 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	1.6123	57.7703	11.4949	0.1646	3.7094	0.1862	3.8956	1.0166	0.1782	1.1947		17,796.05 25	17,796.05 25	1.1942		17,825.90 74
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	1.6802	57.8160	12.1081	0.1663	3.8771	0.1875	4.0646	1.0610	0.1793	1.2404		17,967.71 51	17,967.71 51	1.1991		17,997.69 34

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0350	0.0000	3.0350	1.5285	0.0000	1.5285			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	3.0350	1.2734	4.3084	1.5285	1.1716	2.7000	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6

Lakeview Plaza - South Coast AQMD Air District, Summer

3.3 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	1.6123	57.7703	11.4949	0.1646	3.7094	0.1862	3.8956	1.0166	0.1782	1.1947		17,796.05 25	17,796.05 25	1.1942		17,825.90 74
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	1.6802	57.8160	12.1081	0.1663	3.8771	0.1875	4.0646	1.0610	0.1793	1.2404		17,967.71 51	17,967.71 51	1.1991		17,997.69 34

3.4 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		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Lakeview Plaza - South Coast AQMD Air District, Summer

3.4 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	0.0690	2.2036	0.5247	5.4000e-003	0.1344	0.0109	0.1453	0.0387	0.0104	0.0491		576.3418	576.3418	0.0362		577.2464
Worker	0.2217	0.1490	2.0032	5.6300e-003	0.5477	4.1500e-003	0.5519	0.1453	3.8300e-003	0.1491		560.7646	560.7646	0.0161		561.1676
Total	0.2907	2.3527	2.5279	0.0110	0.6821	0.0151	0.6972	0.1839	0.0143	0.1982		1,137.1063	1,137.1063	0.0523		1,138.4140

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Summer

3.4 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	0.0690	2.2036	0.5247	5.4000e-003	0.1344	0.0109	0.1453	0.0387	0.0104	0.0491		576.3418	576.3418	0.0362		577.2464
Worker	0.2217	0.1490	2.0032	5.6300e-003	0.5477	4.1500e-003	0.5519	0.1453	3.8300e-003	0.1491		560.7646	560.7646	0.0161		561.1676
Total	0.2907	2.3527	2.5279	0.0110	0.6821	0.0151	0.6972	0.1839	0.0143	0.1982		1,137.1063	1,137.1063	0.0523		1,138.4140

3.4 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Summer

3.4 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	0.0584	2.0029	0.4753	5.3600e-003	0.1344	4.0300e-003	0.1384	0.0387	3.8600e-003	0.0426		572.1208	572.1208	0.0346		572.9860
Worker	0.2068	0.1342	1.8460	5.4500e-003	0.5477	4.0300e-003	0.5517	0.1453	3.7100e-003	0.1490		542.6276	542.6276	0.0146		542.9924
Total	0.2653	2.1370	2.3212	0.0108	0.6821	8.0600e-003	0.6902	0.1839	7.5700e-003	0.1915		1,114.7484	1,114.7484	0.0492		1,115.9784

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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
Total	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

Lakeview Plaza - South Coast AQMD Air District, Summer

3.4 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	0.0584	2.0029	0.4753	5.3600e-003	0.1344	4.0300e-003	0.1384	0.0387	3.8600e-003	0.0426		572.1208	572.1208	0.0346		572.9860
Worker	0.2068	0.1342	1.8460	5.4500e-003	0.5477	4.0300e-003	0.5517	0.1453	3.7100e-003	0.1490		542.6276	542.6276	0.0146		542.9924
Total	0.2653	2.1370	2.3212	0.0108	0.6821	8.0600e-003	0.6902	0.1839	7.5700e-003	0.1915		1,114.7484	1,114.7484	0.0492		1,115.9784

3.5 Architectural Coating - 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					
Archit. Coating	11.7430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	11.9619	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Lakeview Plaza - South Coast AQMD Air District, Summer

3.5 Architectural Coating - 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	0.0422	0.0274	0.3767	1.1100e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.7403	110.7403	2.9800e-003		110.8148
Total	0.0422	0.0274	0.3767	1.1100e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.7403	110.7403	2.9800e-003		110.8148

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.7430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	11.9619	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Lakeview Plaza - South Coast AQMD Air District, Summer

3.5 Architectural Coating - 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	0.0422	0.0274	0.3767	1.1100e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.7403	110.7403	2.9800e-003		110.8148
Total	0.0422	0.0274	0.3767	1.1100e-003	0.1118	8.2000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.7403	110.7403	2.9800e-003		110.8148

3.6 Paving - 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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.4367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5306	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270

Lakeview Plaza - South Coast AQMD Air District, Summer

3.6 Paving - 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	0.0844	0.0548	0.7535	2.2200e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		221.4807	221.4807	5.9600e-003		221.6296
Total	0.0844	0.0548	0.7535	2.2200e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		221.4807	221.4807	5.9600e-003		221.6296

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.4367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5306	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270

Lakeview Plaza - South Coast AQMD Air District, Summer

3.6 Paving - 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	0.0844	0.0548	0.7535	2.2200e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		221.4807	221.4807	5.9600e-003		221.6296
Total	0.0844	0.0548	0.7535	2.2200e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		221.4807	221.4807	5.9600e-003		221.6296

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

Increase Transit Accessibility

Improve Pedestrian Network

Lakeview Plaza - South Coast AQMD Air District, 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	5.8049	27.0344	60.5409	0.2059	15.7571	0.1634	15.9205	4.2161	0.1525	4.3686		20,959.78 79	20,959.78 79	1.0859		20,986.93 57
Unmitigated	5.9137	27.7760	63.4869	0.2176	16.7540	0.1723	16.9262	4.4828	0.1608	4.6436		22,154.83 37	22,154.83 37	1.1353		22,183.21 56

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	785.26	785.26	785.26	1,642,920	1,545,167
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,008.07	3,008.07	3,008.07	6,236,465	5,865,395
Total	3,793.33	3,793.33	3,793.33	7,879,385	7,410,562

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
High Turnover (Sit Down)	16.60	8.40	6.90	8.50	72.50	19.00	60	20	20
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	40	10

4.4 Fleet Mix

Lakeview Plaza - South Coast AQMD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Parking Lot	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Strip Mall	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

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	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132
NaturalGas Unmitigated	0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132

Lakeview Plaza - South Coast AQMD Air District, 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					
High Turnover (Sit Down Restaurant)	5244.05	0.0566	0.5141	0.4319	3.0800e-003		0.0391	0.0391		0.0391	0.0391		616.9476	616.9476	0.0118	0.0113	620.6138
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	219.689	2.3700e-003	0.0215	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003		25.8457	25.8457	5.0000e-004	4.7000e-004	25.9993
Total		0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132

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					
High Turnover (Sit Down Restaurant)	5.24405	0.0566	0.5141	0.4319	3.0800e-003		0.0391	0.0391		0.0391	0.0391		616.9476	616.9476	0.0118	0.0113	620.6138
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.219689	2.3700e-003	0.0215	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003		25.8457	25.8457	5.0000e-004	4.7000e-004	25.9993
Total		0.0589	0.5357	0.4500	3.2100e-003		0.0407	0.0407		0.0407	0.0407		642.7934	642.7934	0.0123	0.0118	646.6132

6.0 Area Detail

Lakeview Plaza - South Coast AQMD Air District, Summer

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Unmitigated	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584

Lakeview Plaza - South Coast AQMD Air District, 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	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8831					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3900e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Total	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584

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	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8831					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3900e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584
Total	0.9434	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0547	0.0547	1.5000e-004		0.0584

7.0 Water Detail

Lakeview Plaza - South Coast AQMD Air District, Summer

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**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

Lakeview Plaza - South Coast AQMD Air District, Annual

Lakeview Plaza
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	207.00	Space	3.00	82,800.00	0
High Turnover (Sit Down Restaurant)	7.00	1000sqft	0.16	7,000.00	0
Strip Mall	36.12	1000sqft	0.83	36,120.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Lakeview Plaza - South Coast AQMD Air District, Annual

Project Characteristics - Energy Intensity Factors remain at defaults.

Land Use - Pursuant to project site plans.

Construction Phase - Site is vacant (demolition not anticipated). Site preparation and building phases expanded to account for substantial grading.

Grading - Material exported based on preliminary grading plan.

Architectural Coating - Assumed compliance with SCAQMD Rule 1113.

Vehicle Trips - Weekday and weekend trip generation rates adjusted based on rates used in Traffic Study. Pass by information also adjusted based on TIA

Area Coating - Assumed compliance with SCAQMD Rule 1113

Energy Use - Title 24 energy use reduced by 30 percent for compliance with 2019 Title 24 standards for commercial uses.

Water And Wastewater - Indoor water consumption reduced by 20 percent based on compliance with 2016 Title 24 standards.

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403

Mobile Land Use Mitigation - Site would provide sidewalk improvements along Lakeshore Drive and Manning Street. Project site is 0.3 mile from Riverside/Lakeshore Bus Stop.

Area Mitigation - Assumed compliance with SCAQMD Rule 1113.

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	8.00	50.00
tblConstructionPhase	NumDays	5.00	14.00
tblEnergyUse	T24E	12.38	8.67
tblEnergyUse	T24E	4.58	3.21
tblGrading	MaterialExported	0.00	84,910.00
tblLandUse	LotAcreage	1.86	3.00
tblVehicleTrips	PB_TP	43.00	20.00
tblVehicleTrips	PB_TP	15.00	10.00
tblVehicleTrips	PR_TP	37.00	60.00
tblVehicleTrips	PR_TP	45.00	50.00
tblVehicleTrips	ST_TR	158.37	112.18
tblVehicleTrips	ST_TR	42.04	83.28
tblVehicleTrips	SU_TR	131.84	112.18
tblVehicleTrips	SU_TR	20.43	83.28
tblVehicleTrips	WD_TR	127.15	112.18
tblVehicleTrips	WD_TR	44.32	83.28
tblWater	IndoorWaterUseRate	2,124,735.99	1,699,788.79
tblWater	IndoorWaterUseRate	2,675,499.48	2,140,399.58

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2.0 Emissions Summary**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2142	3.1817	1.5227	6.4200e-003	0.4146	0.0904	0.5050	0.1871	0.0842	0.2713	0.0000	606.7468	606.7468	0.0772	0.0000	608.6772
2021	0.2979	1.7010	1.6578	3.2500e-003	0.0572	0.0844	0.1416	0.0154	0.0793	0.0947	0.0000	286.6974	286.6974	0.0538	0.0000	288.0416
Maximum	0.2979	3.1817	1.6578	6.4200e-003	0.4146	0.0904	0.5050	0.1871	0.0842	0.2713	0.0000	606.7468	606.7468	0.0772	0.0000	608.6772

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	0.2142	3.1817	1.5227	6.4200e-003	0.2523	0.0904	0.3427	0.1022	0.0842	0.1863	0.0000	606.7466	606.7466	0.0772	0.0000	608.6770
2021	0.2979	1.7009	1.6578	3.2500e-003	0.0572	0.0844	0.1416	0.0154	0.0793	0.0947	0.0000	286.6972	286.6972	0.0538	0.0000	288.0413
Maximum	0.2979	3.1817	1.6578	6.4200e-003	0.2523	0.0904	0.3427	0.1022	0.0842	0.1863	0.0000	606.7466	606.7466	0.0772	0.0000	608.6770

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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
Percent Reduction	0.00	0.00	0.00	0.00	34.40	0.00	25.10	41.94	0.00	23.21	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	7-1-2020	9-30-2020	2.5579	2.5579
2	10-1-2020	12-31-2020	0.7881	0.7881
3	1-1-2021	3-31-2021	0.6996	0.6996
4	4-1-2021	6-30-2021	0.7064	0.7064
5	7-1-2021	9-30-2021	0.5883	0.5883
		Highest	2.5579	2.5579

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	0.1720	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003
Energy	0.0108	0.0978	0.0821	5.9000e-004		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	342.8646	342.8646	0.0118	3.9700e-003	344.3429
Mobile	0.9930	5.2031	11.1788	0.0380	2.9939	0.0314	3.0254	0.8023	0.0294	0.8317	0.0000	3,514.1655	3,514.1655	0.1875	0.0000	3,518.8517
Waste						0.0000	0.0000		0.0000	0.0000	24.6086	0.0000	24.6086	1.4543	0.0000	60.9668
Water						0.0000	0.0000		0.0000	0.0000	1.2183	22.2169	23.4352	0.1261	3.1400e-003	27.5235
Total	1.1758	5.3009	11.2641	0.0386	2.9939	0.0389	3.0328	0.8023	0.0368	0.8391	25.8269	3,879.2533	3,905.0802	1.7797	7.1100e-003	3,951.6915

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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	0.1720	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003
Energy	0.0108	0.0978	0.0821	5.9000e-004		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	342.8646	342.8646	0.0118	3.9700e-003	344.3429
Mobile	0.9737	5.0578	10.6876	0.0360	2.8158	0.0298	2.8456	0.7546	0.0278	0.7824	0.0000	3,324.5630	3,324.5630	0.1795	0.0000	3,329.0507
Waste						0.0000	0.0000		0.0000	0.0000	24.6086	0.0000	24.6086	1.4543	0.0000	60.9668
Water						0.0000	0.0000		0.0000	0.0000	1.2183	22.2169	23.4352	0.1261	3.1400e-003	27.5235
Total	1.1564	5.1556	10.7729	0.0366	2.8158	0.0373	2.8530	0.7546	0.0353	0.7898	25.8269	3,689.6508	3,715.4777	1.7717	7.1100e-003	3,761.8905

	ROG	NOx	CO	SO2	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	1.65	2.74	4.36	5.31	5.95	4.14	5.93	5.95	4.10	5.87	0.00	4.89	4.86	0.45	0.00	4.80

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2020	7/20/2020	5	14	
2	Grading	Grading	7/21/2020	9/28/2020	5	50	
3	Building Construction	Building Construction	9/29/2020	8/16/2021	5	230	
4	Architectural Coating	Architectural Coating	8/4/2021	8/27/2021	5	18	
5	Paving	Paving	8/17/2021	9/9/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

Acres of Paving: 3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 64,680; Non-Residential Outdoor: 21,560; Striped Parking Area: 4,968 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
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	10,614.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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					0.1265	0.0000	0.1265	0.0695	0.0000	0.0695	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.2969	0.1506	2.7000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	23.4015	23.4015	7.5700e-003	0.0000	23.5907
Total	0.0285	0.2969	0.1506	2.7000e-004	0.1265	0.0154	0.1418	0.0695	0.0142	0.0837	0.0000	23.4015	23.4015	7.5700e-003	0.0000	23.5907

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3.2 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	5.6000e-004	4.3000e-004	4.7700e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2445	1.2445	4.0000e-005	0.0000	1.2454
Total	5.6000e-004	4.3000e-004	4.7700e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2445	1.2445	4.0000e-005	0.0000	1.2454

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0569	0.0000	0.0569	0.0313	0.0000	0.0313	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.2969	0.1506	2.7000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	23.4015	23.4015	7.5700e-003	0.0000	23.5907
Total	0.0285	0.2969	0.1506	2.7000e-004	0.0569	0.0154	0.0723	0.0313	0.0142	0.0454	0.0000	23.4015	23.4015	7.5700e-003	0.0000	23.5907

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3.2 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	5.6000e-004	4.3000e-004	4.7700e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2445	1.2445	4.0000e-005	0.0000	1.2454
Total	5.6000e-004	4.3000e-004	4.7700e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2445	1.2445	4.0000e-005	0.0000	1.2454

3.3 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					0.1686	0.0000	0.1686	0.0849	0.0000	0.0849	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0607	0.6597	0.4013	7.4000e-004		0.0318	0.0318		0.0293	0.0293	0.0000	65.1469	65.1469	0.0211	0.0000	65.6736
Total	0.0607	0.6597	0.4013	7.4000e-004	0.1686	0.0318	0.2005	0.0849	0.0293	0.1142	0.0000	65.1469	65.1469	0.0211	0.0000	65.6736

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3.3 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	0.0408	1.4892	0.2970	4.0800e-003	0.0913	4.6900e-003	0.0959	0.0251	4.4800e-003	0.0295	0.0000	400.4874	400.4874	0.0276	0.0000	401.1773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6700e-003	1.2800e-003	0.0142	4.0000e-005	4.1100e-003	3.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.7038	3.7038	1.1000e-004	0.0000	3.7064
Total	0.0425	1.4905	0.3112	4.1200e-003	0.0954	4.7200e-003	0.1001	0.0261	4.5100e-003	0.0307	0.0000	404.1912	404.1912	0.0277	0.0000	404.8837

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0759	0.0000	0.0759	0.0382	0.0000	0.0382	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0607	0.6597	0.4013	7.4000e-004		0.0318	0.0318		0.0293	0.0293	0.0000	65.1468	65.1468	0.0211	0.0000	65.6735
Total	0.0607	0.6597	0.4013	7.4000e-004	0.0759	0.0318	0.1077	0.0382	0.0293	0.0675	0.0000	65.1468	65.1468	0.0211	0.0000	65.6735

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3.3 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	0.0408	1.4892	0.2970	4.0800e-003	0.0913	4.6900e-003	0.0959	0.0251	4.4800e-003	0.0295	0.0000	400.4874	400.4874	0.0276	0.0000	401.1773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6700e-003	1.2800e-003	0.0142	4.0000e-005	4.1100e-003	3.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.7038	3.7038	1.1000e-004	0.0000	3.7064
Total	0.0425	1.4905	0.3112	4.1200e-003	0.0954	4.7200e-003	0.1001	0.0261	4.5100e-003	0.0307	0.0000	404.1912	404.1912	0.0277	0.0000	404.8837

3.4 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	0.0721	0.6523	0.5729	9.2000e-004		0.0380	0.0380		0.0357	0.0357	0.0000	78.7474	78.7474	0.0192	0.0000	79.2277
Total	0.0721	0.6523	0.5729	9.2000e-004		0.0380	0.0380		0.0357	0.0357	0.0000	78.7474	78.7474	0.0192	0.0000	79.2277

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3.4 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	2.3900e-003	0.0762	0.0189	1.8000e-004	4.5000e-003	3.7000e-004	4.8700e-003	1.3000e-003	3.6000e-004	1.6600e-003	0.0000	17.5610	17.5610	1.1500e-003	0.0000	17.5898
Worker	7.4400e-003	5.7000e-003	0.0631	1.8000e-004	0.0183	1.4000e-004	0.0184	4.8500e-003	1.3000e-004	4.9800e-003	0.0000	16.4545	16.4545	4.7000e-004	0.0000	16.4663
Total	9.8300e-003	0.0819	0.0820	3.6000e-004	0.0228	5.1000e-004	0.0233	6.1500e-003	4.9000e-004	6.6400e-003	0.0000	34.0155	34.0155	1.6200e-003	0.0000	34.0561

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0721	0.6523	0.5729	9.2000e-004		0.0380	0.0380		0.0357	0.0357	0.0000	78.7473	78.7473	0.0192	0.0000	79.2276
Total	0.0721	0.6523	0.5729	9.2000e-004		0.0380	0.0380		0.0357	0.0357	0.0000	78.7473	78.7473	0.0192	0.0000	79.2276

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3.4 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	2.3900e-003	0.0762	0.0189	1.8000e-004	4.5000e-003	3.7000e-004	4.8700e-003	1.3000e-003	3.6000e-004	1.6600e-003	0.0000	17.5610	17.5610	1.1500e-003	0.0000	17.5898
Worker	7.4400e-003	5.7000e-003	0.0631	1.8000e-004	0.0183	1.4000e-004	0.0184	4.8500e-003	1.3000e-004	4.9800e-003	0.0000	16.4545	16.4545	4.7000e-004	0.0000	16.4663
Total	9.8300e-003	0.0819	0.0820	3.6000e-004	0.0228	5.1000e-004	0.0233	6.1500e-003	4.9000e-004	6.6400e-003	0.0000	34.0155	34.0155	1.6200e-003	0.0000	34.0561

3.4 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	0.1540	1.4120	1.3426	2.1800e-003		0.0777	0.0777		0.0730	0.0730	0.0000	187.6262	187.6262	0.0453	0.0000	188.7578
Total	0.1540	1.4120	1.3426	2.1800e-003		0.0777	0.0777		0.0730	0.0730	0.0000	187.6262	187.6262	0.0453	0.0000	188.7578

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3.4 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	4.8400e-003	0.1646	0.0408	4.3000e-004	0.0107	3.3000e-004	0.0111	3.0900e-003	3.2000e-004	3.4100e-003	0.0000	41.5293	41.5293	2.6300e-003	0.0000	41.5950
Worker	0.0165	0.0122	0.1383	4.2000e-004	0.0436	3.3000e-004	0.0439	0.0116	3.0000e-004	0.0119	0.0000	37.9302	37.9302	1.0200e-003	0.0000	37.9556
Total	0.0214	0.1768	0.1791	8.5000e-004	0.0543	6.6000e-004	0.0549	0.0147	6.2000e-004	0.0153	0.0000	79.4595	79.4595	3.6500e-003	0.0000	79.5506

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1540	1.4120	1.3426	2.1800e-003		0.0777	0.0777		0.0730	0.0730	0.0000	187.6260	187.6260	0.0453	0.0000	188.7576
Total	0.1540	1.4120	1.3426	2.1800e-003		0.0777	0.0777		0.0730	0.0730	0.0000	187.6260	187.6260	0.0453	0.0000	188.7576

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3.4 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	4.8400e-003	0.1646	0.0408	4.3000e-004	0.0107	3.3000e-004	0.0111	3.0900e-003	3.2000e-004	3.4100e-003	0.0000	41.5293	41.5293	2.6300e-003	0.0000	41.5950
Worker	0.0165	0.0122	0.1383	4.2000e-004	0.0436	3.3000e-004	0.0439	0.0116	3.0000e-004	0.0119	0.0000	37.9302	37.9302	1.0200e-003	0.0000	37.9556
Total	0.0214	0.1768	0.1791	8.5000e-004	0.0543	6.6000e-004	0.0549	0.0147	6.2000e-004	0.0153	0.0000	79.4595	79.4595	3.6500e-003	0.0000	79.5506

3.5 Architectural Coating - 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					
Archit. Coating	0.1057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	0.1077	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019

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3.5 Architectural Coating - 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	3.8000e-004	2.8000e-004	3.1400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8601	0.8601	2.0000e-005	0.0000	0.8607
Total	3.8000e-004	2.8000e-004	3.1400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8601	0.8601	2.0000e-005	0.0000	0.8607

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	0.1077	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019

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3.5 Architectural Coating - 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	3.8000e-004	2.8000e-004	3.1400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8601	0.8601	2.0000e-005	0.0000	0.8607
Total	3.8000e-004	2.8000e-004	3.1400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8601	0.8601	2.0000e-005	0.0000	0.8607

3.6 Paving - 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	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7336	14.7336	4.6300e-003	0.0000	14.8493
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0138	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7336	14.7336	4.6300e-003	0.0000	14.8493

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3.6 Paving - 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	7.5000e-004	5.5000e-004	6.2700e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7202	1.7202	5.0000e-005	0.0000	1.7213
Total	7.5000e-004	5.5000e-004	6.2700e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7202	1.7202	5.0000e-005	0.0000	1.7213

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7335	14.7335	4.6300e-003	0.0000	14.8493
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0138	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7335	14.7335	4.6300e-003	0.0000	14.8493

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3.6 Paving - 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	7.5000e-004	5.5000e-004	6.2700e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7202	1.7202	5.0000e-005	0.0000	1.7213
Total	7.5000e-004	5.5000e-004	6.2700e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7202	1.7202	5.0000e-005	0.0000	1.7213

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

Increase Transit Accessibility

Improve Pedestrian Network

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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	0.9737	5.0578	10.6876	0.0360	2.8158	0.0298	2.8456	0.7546	0.0278	0.7824	0.0000	3,324.5630	3,324.5630	0.1795	0.0000	3,329.0507
Unmitigated	0.9930	5.2031	11.1788	0.0380	2.9939	0.0314	3.0254	0.8023	0.0294	0.8317	0.0000	3,514.1655	3,514.1655	0.1875	0.0000	3,518.8517

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	785.26	785.26	785.26	1,642,920	1,545,167
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,008.07	3,008.07	3,008.07	6,236,465	5,865,395
Total	3,793.33	3,793.33	3,793.33	7,879,385	7,410,562

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
High Turnover (Sit Down)	16.60	8.40	6.90	8.50	72.50	19.00	60	20	20
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	50	40	10

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Parking Lot	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Strip Mall	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

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	236.4430	236.4430	9.7600e-003	2.0200e-003	237.2889
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	236.4430	236.4430	9.7600e-003	2.0200e-003	237.2889
NaturalGas Mitigated	0.0108	0.0978	0.0821	5.9000e-004		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	106.4217	106.4217	2.0400e-003	1.9500e-003	107.0541
NaturalGas Unmitigated	0.0108	0.0978	0.0821	5.9000e-004		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	106.4217	106.4217	2.0400e-003	1.9500e-003	107.0541

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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					
High Turnover (Sit Down Restaurant)	1.91408e+006	0.0103	0.0938	0.0788	5.6000e-004		7.1300e-003	7.1300e-003		7.1300e-003	7.1300e-003	0.0000	102.1426	102.1426	1.9600e-003	1.8700e-003	102.7496
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	80186.4	4.3000e-004	3.9300e-003	3.3000e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2791	4.2791	8.0000e-005	8.0000e-005	4.3045
Total		0.0108	0.0978	0.0821	5.8000e-004		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	106.4217	106.4217	2.0400e-003	1.9500e-003	107.0541

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					
High Turnover (Sit Down Restaurant)	1.91408e+006	0.0103	0.0938	0.0788	5.6000e-004		7.1300e-003	7.1300e-003		7.1300e-003	7.1300e-003	0.0000	102.1426	102.1426	1.9600e-003	1.8700e-003	102.7496
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	80186.4	4.3000e-004	3.9300e-003	3.3000e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2791	4.2791	8.0000e-005	8.0000e-005	4.3045
Total		0.0108	0.0978	0.0821	5.8000e-004		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	106.4217	106.4217	2.0400e-003	1.9500e-003	107.0541

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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			
High Turnover (Sit Down Restaurant)	306390	97.6224	4.0300e-003	8.3000e-004	97.9717
Parking Lot	28980	9.2337	3.8000e-004	8.0000e-005	9.2667
Strip Mall	406711	129.5869	5.3500e-003	1.1100e-003	130.0505
Total		236.4430	9.7600e-003	2.0200e-003	237.2889

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	306390	97.6224	4.0300e-003	8.3000e-004	97.9717
Parking Lot	28980	9.2337	3.8000e-004	8.0000e-005	9.2667
Strip Mall	406711	129.5869	5.3500e-003	1.1100e-003	130.0505
Total		236.4430	9.7600e-003	2.0200e-003	237.2889

6.0 Area Detail

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6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1720	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003
Unmitigated	0.1720	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003

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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	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1612					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-004	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003
Total	0.1720	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003

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	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1612					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-004	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003
Total	0.1720	3.0000e-005	3.2000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.2100e-003	6.2100e-003	2.0000e-005	0.0000	6.6200e-003

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.4352	0.1261	3.1400e-003	27.5235
Unmitigated	23.4352	0.1261	3.1400e-003	27.5235

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	1.69979 / 0.135621	8.0714	0.0557	1.3700e-003	9.8728
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.1404 / 1.63982	15.3639	0.0704	1.7700e-003	17.6508
Total		23.4352	0.1261	3.1400e-003	27.5235

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	1.69979 / 0.135621	8.0714	0.0557	1.3700e-003	9.8728
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.1404 / 1.63982	15.3639	0.0704	1.7700e-003	17.6508
Total		23.4352	0.1261	3.1400e-003	27.5235

8.0 Waste Detail**8.1 Mitigation Measures Waste**

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	24.6086	1.4543	0.0000	60.9668
Unmitigated	24.6086	1.4543	0.0000	60.9668

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	83.3	16.9092	0.9993	0.0000	41.8917
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	37.93	7.6995	0.4550	0.0000	19.0751
Total		24.6086	1.4543	0.0000	60.9668

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	83.3	16.9092	0.9993	0.0000	41.8917
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	37.93	7.6995	0.4550	0.0000	19.0751
Total		24.6086	1.4543	0.0000	60.9668

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: Lakeview Plaza

Vehicle Population Breakdown*	
11089385	Gasoline vehicles
242347	Diesel vehicles
97.9%	Gasoline vehicle %
2.1%	Diesel vehicle %

VMT per Vehicle Type	
7410562	Project VMT (CalEEMod output)
7252075	Gasoline vehicle VMT
158487	Diesel vehicle VMT

Gasoline Vehicles	
97.9%	Gasoline vehicle %
5.1556	Tons per year mobile NOX emissions (annual output in CalEEMod)
5.05	Gasoline vehicle tons per year NOX emissions
4.16%	Percentage to convert NOX emissions to N2O **
0.2099	Tons per year N2O emissions for gasoline vehicles
0.1904	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
0.3316	grams N2O per gallon of fuel for diesel vehicles**
24.46	Diesel average miles per gallon*
0.01356	grams per mile N2O for diesel vehicles
2148.4	grams per year N2O for diesel vehicles
0.0021484	Metric tons per year N2O emissions for diesel vehicles

CO2E Emissions from N2O	
0.1926	Metric tons per year from gasoline + diesel vehicles
265	GWP of N2O***
51.0	CO2E emissions per year from N2O emissions from gasoline + diesel vehicles

Sources
*Vehicle population source: EMFAC2014 (v1.0.7) Emissions Inventory Region Type: Air District Region: SCAQMD Calendar Year: 2022 Season: Annual Vehicle Classification: EMFAC2011 Categories **Methodology source: EMFAC2011 Frequently Asked Questions https://www.arb.ca.gov/msei/emfac2011-faq.htm ***GWP source: Intergovernmental Panel on Climate Change (IPCC). 2014. AR5 Climate Change 2014 Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.