Air Quality Assessment
Gardner Rosecrans Avenue Project
City of Gardena, California

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LIST OF ABBREVIATED TERMS

AQMP	air quality management plan
AB	Assembly Bill
ADT	average daily traffic
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
cy	cubic yards
DPM	diesel particulate matter
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
H_2S	hydrogen sulfide
Pb	Lead
LST	local significance threshold
µg/m^3	micrograms per cubic meter
mg/m^3	milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
O_3	Ozone
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
ROG	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SRA	source receptor area
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SF	square foot
SO_{4-2}	Sulfates
SO_2	sulfur dioxide
TAC	toxic air contaminant
C_2H_3Cl	vinyl chloride
VOC	volatile organic compound

1 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for the Gardner Rosecrans Project (Project). The purpose of this Air Quality Assessment is to evaluate the Project's potential construction and operational emissions and determine the Project's level of impact on the environment.

1.1 Project Location and Setting

The Gardner Rosecrans Avenue Project (Project) site is in the County of Los Angeles (County), in the City of Gardena (City), approximately 9.3 miles southwest of downtown Los Angeles; see Exhibit 1: Regional Vicinity Map. The Project site is northwest of the City, approximately 0.5 mile south of the City's jurisdictional limits with the City of Hawthorne. The 5.46-acre Project site consists of two parcels (APN # 4061-028-049 and -018) located northeast of the Rosecrans Avenue at Van Ness Avenue intersection, at 2101 and 2129 Rosecrans Avenue; see Exhibit 2: Site Vicinity Map.

Regional access to the Project site is provided via the Artesia Freeway (State Route 91 (SR-91)) located to the south, the San Diego Freeway (Interstate 405 (I 405)) located to both the south and west, the Harbor Freeway (State Route 110 (SR-110)) located to the east, and the Glenn Anderson Freeway (Interstate Route 105 (I-105)), located to the north. Local access to the Project site is provided via Rosecrans Avenue to the south, South Western Avenue to the east, and Van Ness Avenue to the west. One driveway on Rosecrans Ave at the Project site's southwest corner provides vehicular access.

As depicted on Exhibit 2, the site is fully developed except an approximately 1.6-acre undeveloped area on the southeastern corner. Existing development consists of approximately 42,400 square feet (SF) of commercial uses (circa 1976) comprised of three buildings (an approximately 11,500-SF office building, an approximately 5,400-SF building ancillary to the office building, and an approximately 25,500-SF automotive repair service building), surface parking, and drive aisles. It is assumed the existing onsite land uses are fully occupied.

The Project site is designated General Commercial with a Mixed-Use Overlay[1]. The General Commercial designation provides for a wide range of larger-scale commercial uses to serve both the needs of the City and the region[2]. The Mixed-Use Overlay permits residential development on selected areas designated for commercial and industrial land uses.

1.2 Project Description

The Project proposes a mixed-use development consisting of an approximately 0.54-acre commercial lot (on the Project site's southwest corner) and an approximately 4.93-acre residential lot (encompassing the site's remainder). One approximately 5,080-SF retail building and 35 parking spaces are proposed on the commercial lot. In total, 105 three-story residential dwelling units (DU) at a gross density of 21.3 dwelling units per acre and 274 parking spaces are proposed on the residential lot; see Exhibit 3: Conceptual Site Plan. The Project proposes to remove all existing on-site improvements, including the commercial and automotive repair buildings, associated surface parking lot, and storage (approximately 42,400 SF).

[1] City of Gardena. (2006, Updated February 2013). *Gardena General Plan 2006*. Figure LU-2: 2013 General Plan Land Use Policy Map. Gardena, CA: City of Gardena.

[2] City of Gardena. (2006, Updated February 2013). *Gardena General Plan 2006*. Page LU-12. Gardena, CA: City of Gardena.

Commercial Lot

The commercial lot includes 35 parking spaces for the approximately 5,080 SF retail commercial building. Landscaping and sidewalks border the parking lot. Access to the commercial lot is provided through the site's primary entrance at Rosecrans Avenue. The retail commercial building's frontage would be east toward the commercial parking spaces. The commercial lot would include a patio with an outdoor fireplace, shade provided by metal trellises and outdoor tables and chairs. The patio space would be on the northern edge of the commercial lot facing the live-work spaces. A service walk along the western edge of the building would lead to electrical service rooms for the building.

Residential Lot

On the residential lot, 50 attached townhouse DU, 41 detached single-family (SF) garden court DU, and 14 attached live-work DU with 245 SF of workspace are proposed.

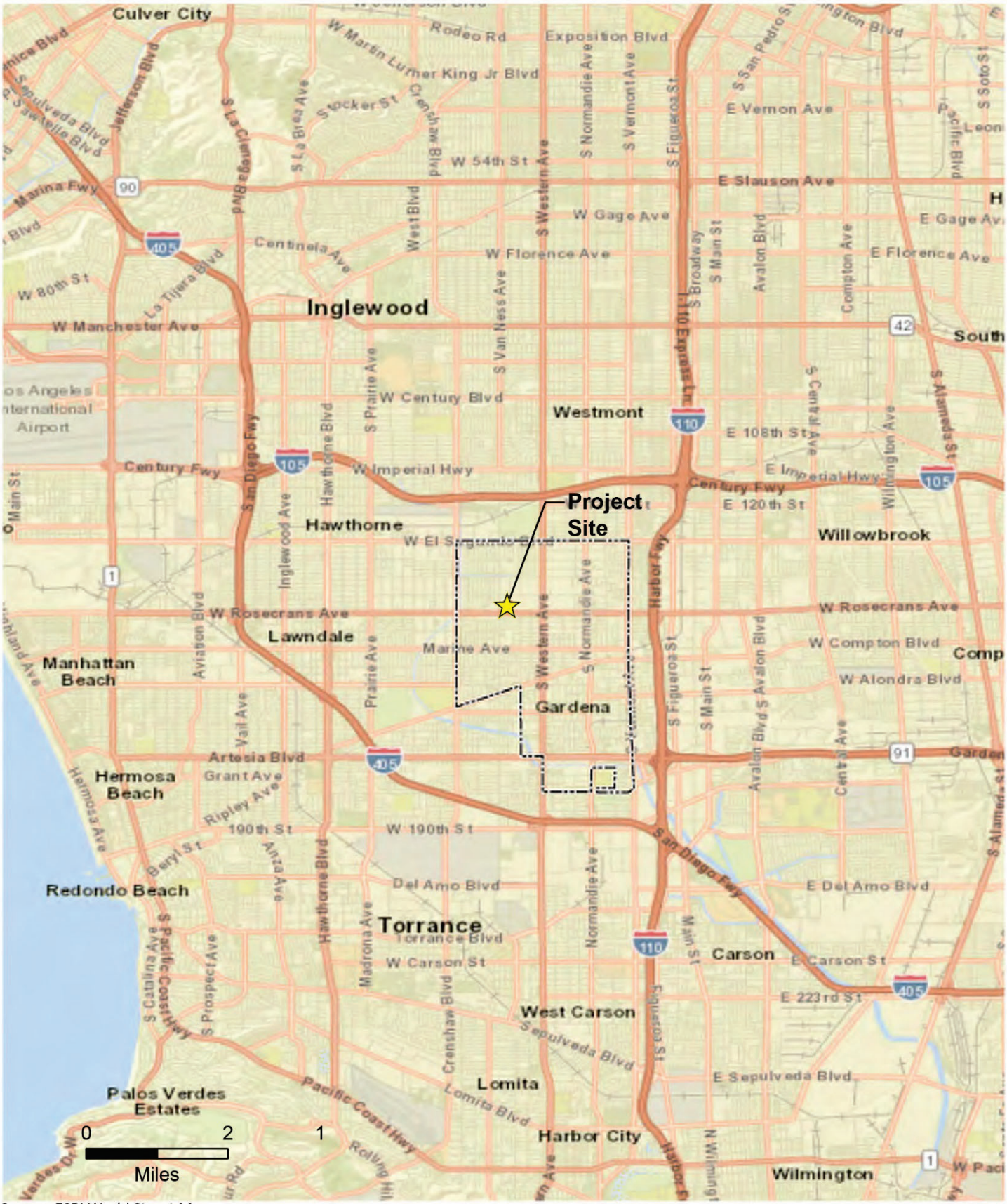
As depicted on Exhibit 3, the proposed Site Plan involves ten building clusters. Five clusters are each on the site's eastern and western portions, with an internal street separating the two areas. Four private driveways running east-west separate clusters on each portion of the site, and an additional private drive running north-south is on the southeastern portion. All residential building parking faces the private driveways, with building frontages oriented to the shared walkways within the clusters.

Project Construction and Phasing

Project construction is anticipated to begin March 2020 and end in September 2022, in the following sequence:

- Demolition,
- Site Preparation,
- Grading,
- Building Construction, and
- Paving, Architectural Coating, and Landscaping.

Grading for the proposed improvements would require cut and fill to create building pads. Grading is estimated to require approximately 3,615 cubic yards of soil import. Final grading plans would be approved by the City Engineer before Grading Permit issuance. All infrastructure (i.e., storm drain, water, wastewater, dry utilities, and street improvements) would be installed during grading.



Source: ESRI World Street Map

Gardner Rosecrans Avenue Project

Exhibit 1

Regional Vicinity Map

Source: Near Maps - Image Dated January 1, 2019

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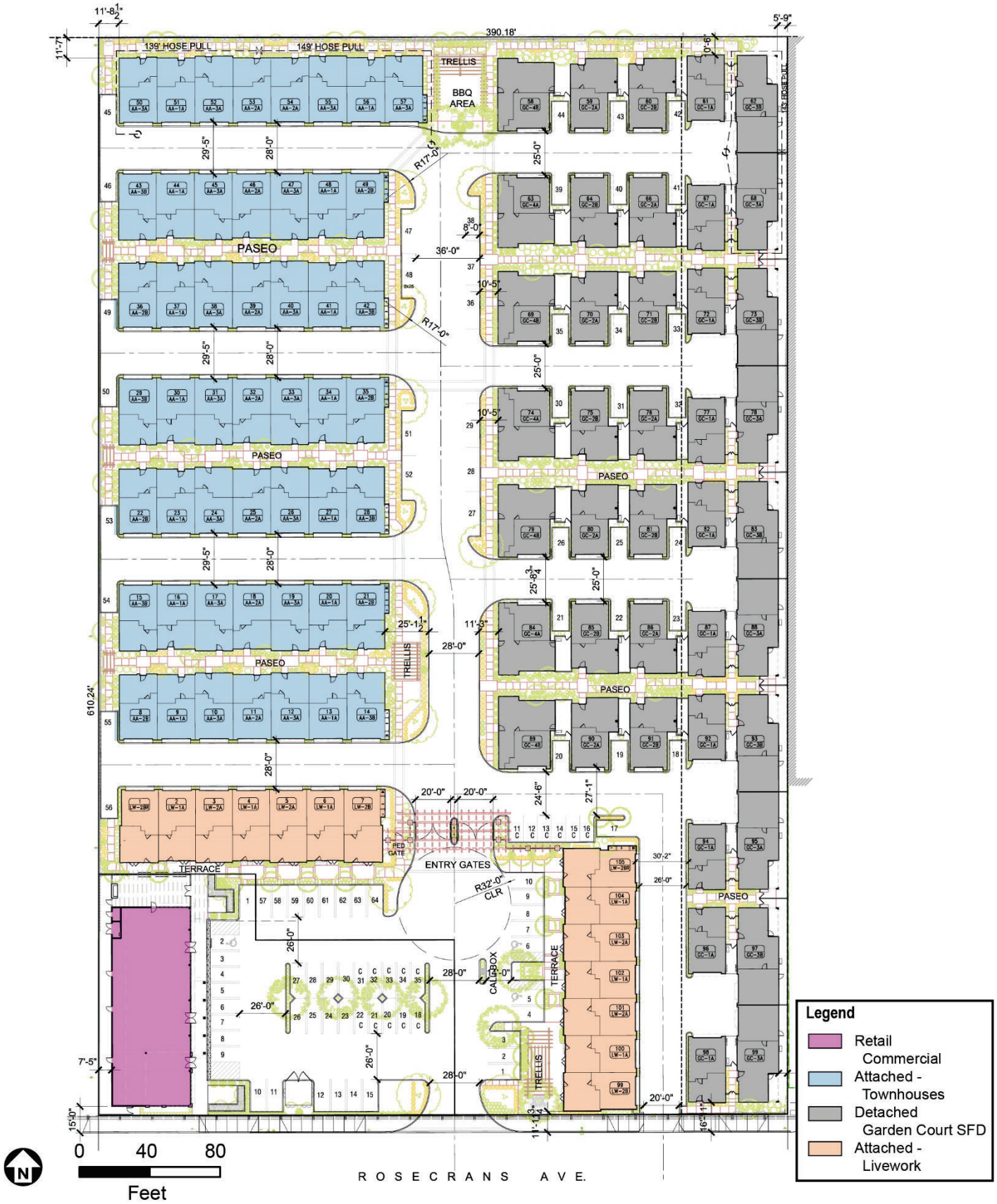
Welcome To GARDENA

Gardner Rosecrans Avenue Project

Exhibit 2
Site Vicinity Map



Source: Angeleno Associates, Overall Site Plan, May 23, 2019

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Welcome To GARDENA

Gardner Rosecrans Avenue Project

Exhibit 3

Conceptual Site Plan

2 ENVIRONMENTAL SETTING

2.1 Climate and Meteorology

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The proposed Project is located within the 6,645-square-mile South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter.[3] SCAB's air quality is determined by natural factors such as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

SCAB is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds. The annual average temperature throughout SCAB ranges from low 60 to high 80 degrees Fahrenheit with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

Contrasting the very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rainfall occurs between the months of November and April. Summer rainfall is reduced to widely scattered thundershowers near the coast, with slightly heavier activity in the east and over the mountains.

Although SCAB has a semiarid climate, the air closer to the Earth's surface is typically moist because of the presence of a shallow marine layer. Except for occasional periods when dry, continental air is brought into the SCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog are frequent and low clouds known as high fog are characteristic climatic features, especially along the coast. Annual average humidity is 70 percent at the coast and 57 percent in SCAB's eastern portions.

Wind patterns across SCAB are characterized by westerly or southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter.

Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During winter and fall, surface high-pressure systems over SCAB, combined with other meteorological conditions, result in very strong, downslope Santa Ana winds. These winds normally continue for a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. SCAB's air quality generally ranges from fair to poor and is like air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

[3] South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

In addition to the characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which air pollutants are mixed. These inversions are the marine inversion and the radiation inversion. The height of the base of the inversion at any given time is called the "mixing height." The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SCAB in the summer and generally good air quality in the winter.

2.2 Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants.

Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 1: Air Contaminants and Associated Public Health Concerns.

Table 1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.

Table 1: Air Contaminants and Associated Public Health Concerns (continued)		
Pollutant	**Major Man-Made Sources**	**Human Health Effects**
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Notes:
[1] Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Source: California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, http://www.capcoa.org/health-effects/, Accessed January 27, 2020.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the Project site are documented by measurements made by the South Coast Air Quality Management District (SCAQMD), SCAB's air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

Ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$) are pollutants of concern in the SCAB. The closest air monitoring station to the proposed Project site that monitors ambient concentrations of these pollutants is the Compton-700 North Bullis Road Monitoring Station (located approximately 6.4 miles east of the Project site). Local air quality data from 2016 to 2018 is provided in Table 2: Ambient Air Quality Data. Table 2 lists the monitored maximum concentrations and number of exceedances of federal or state air quality standards for each year.

Table 2: Ambient Air Quality Data

Pollutant	Compton-700 North Bullis Road Monitoring Station[1]		
	2016	2017	2018
Ozone (O_3)			
1-hour Maximum Concentration (ppm)	0.098	0.092	0.075
8-hour Maximum Concentration (ppm)	0.071	0.076	0.063
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	1	0	0
NAAQS 8-hour (>0.070 ppm)	1	5	0
Nitrogen Dioxide (NO_2)			
1-hour Maximum Concentration (ppm)	63.7	99.1	68.3
Number of Days Standard Exceeded			
NAAQS 1-hour (>100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM_{10})			
National 24-hour Maximum Concentration	43.0	46.5	45.3
State 24-hour Maximum Concentration	43.9	46.5	45.1
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m³)	0	0	0
CAAQS 24-hours (>50 µg/m³)	0	0	0
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)			
National 24-hour Maximum Concentration	36.3	66.7	49.4
State 24-hour Maximum Concentration	36.3	66.7	49.4
Number of Days Standard Exceeded			
NAAQS 24-hour (>35 µg/m³)	1	5	2

Notes: NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m³ = micrograms per cubic meter; NM = not measured

[1] Measurements taken at the Compton-700 North Bullis Road Monitoring Station, Compton, California 90221 (CARB# 70112).

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam).

2.3 Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive receptors in proximity to localized sources of toxics are of particular concern. Land uses

considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The Project site is at the City's western portion, in a predominantly commercial and industrial area, although residential uses exist to the west and south. The site is bounded by industrial uses to the north and east, and commercial uses to the south and west.

Table 3: Sensitive Receptors, lists the distances and locations of nearby sensitive receptors, which primarily include single-family residences, health care facilities, religious institutions, educational institutions, and recreational facilities.

Table 3: Sensitive Receptors

Receptor Type/Description	Distance and Direction from the Project Site
RESIDENTIAL	
Single-Family Residential Neighborhood	310 feet to the south
Single-Family Residential Neighborhood	550 feet to the west
Single-Family Residential Neighborhood	2,096 feet to the north
HEALTH CARE	
Las Flores Convalescent Hospital	1,286 feet to the west
RELIGIOUS INSTITUTIONS	
Maria Regina Catholic Church	1,707 feet to the north
Bible Baptist Church	2,814 feet to the southeast
Iglesia Presbiteriana Bethesda	2,966 feet to the southwest
EDUCATIONAL INSTITUTIONS	
Junipero Serra High School	1,500 feet to the south
Maria Regina School – Private School	1,526 feet to the north
Chapman Elementary School	2,335 feet to the southeast
Purche Avenue Elementary School	2,663 feet to the northwest
RECREATIONAL FACILITIES	
Thornburg Park	2,306 feet to the southwest
Rowley Park	2,409 feet to the north
Luck Duck Swim School	2,844 feet to the Southwest

Source: Google Earth Pro, 2019

3 REGULATORY SETTING

3.1 Federal

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the EPA developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The U.S. Environmental Protection Agency (EPA) can withhold certain transportation funds from states that fail to comply with the FCAA's planning requirements. If a state fails to correct these planning deficiencies within two years of Federal notification, the EPA is required to develop a Federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. The EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in Table 4: State and Federal Ambient Air Quality Standards.

3.2 State of California

California Air Resources Board

CARB administers California's air quality policy. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data indicates that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in Table 4.

Table 4: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]	Federal Standards[2]
Ozone (O_3) [2, 5, 7]	8 Hour	0.070 ppm (137 µg/m³)	0.070 ppm
	1 Hour	0.09 ppm (180 µg/m³)	NA
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)
	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m³)	0.10 ppm[11]
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)
Sulfur Dioxide (SO_2) [8]	24 Hour	0.04 ppm (105 µg/m³)	0.14 ppm (365 µg/m³)
	1 Hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)
	Annual Arithmetic Mean	NA	0.03 ppm (80 µg/m³)
Particulate Matter (PM_{10}) [1, 3, 6]	24-Hour	50 µg/m³	150 µg/m³
	Annual Arithmetic Mean	20 µg/m³	NA
Fine Particulate Matter ($PM_{2.5}$) [3, 4, 6, 9]	24-Hour	NA	35 µg/m³
	Annual Arithmetic Mean	12 µg/m³	12 µg/m³
Sulfates (SO_{4-2})	24 Hour	25 µg/m³	NA
Lead (Pb) [10, 11]	30-Day Average	1.5 µg/m³	NA
	Calendar Quarter	NA	1.5 µg/m³
	Rolling 3-Month Average	NA	0.15 µg/m³
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (0.15 µg/m³)	NA
Vinyl Chloride (C_2H_3Cl) [10]	24 Hour	0.01 ppm (26 µg/m³)	NA

Notes:
ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; – = no information available.

1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. Measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe carbon monoxide standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

2 National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m_3. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.

3 Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard. NAAQS are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.

4 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

5 The national 1-hour ozone standard was revoked by the EPA on June 15, 2005.

6 In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.

7 The 8-hour California ozone standard was approved by the CARB on April 28, 2005 and became effective on May 17, 2006.

8 On June 2, 2010, the EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following EPA initial designations of the new 1-hour SO_2 NAAQS.

9 In December 2012, EPA strengthened the annual $PM_{2.5}$ NAAQS from 15.0 to 12.0 µg/m³. In December 2014, the EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

10 CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.

11 National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2016; California Air Resources Board, *Ambient Air Quality Standards*, May 6, 2016.

3.3 Regional

South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties. The agency's primary responsibility is ensuring that federal and state ambient air quality standards are attained and maintained in SCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with federal agencies, provides the control element for mobile sources.

The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017. The purpose of the AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to update the SCAQMD's commitments towards meeting the federal 8-hour ozone standards. The AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2016-2040 *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and updated emission inventory methodologies for various source categories.

The SCAQMD has published the *CEQA Air Quality Handbook* (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for Local Significance Thresholds [LST] in 2008). The SCAQMD guidance helps local government agencies and consultants develop environmental documents required by California Environmental Quality Act (CEQA) and identifies thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the *CEQA Air Quality Handbook* and associated guidance, local land use planners and consultants can analyze and document how existing and proposed projects affect air quality, in order to meet the CEQA review process requirements. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under state law as a Regional Transportation Planning Agency and a Council of Governments.

The state and national attainment status designations for SCAB are summarized in Table 5: South Coast Air Basin Attainment Status. SCAB is currently designated as a nonattainment area concerning the state ozone, PM_{10}, and $PM_{2.5}$ standards, as well as the national 8-hour ozone and $PM_{2.5}$ standards. The SCAB is designated as attainment or unclassified for the remaining state and federal standards.

Table 5: South Coast Air Basin Attainment Status		
Pollutant	**Federal**	**State**
Ozone (O_3) (1 Hour Standard)	Non-Attainment (Extreme)	Non-Attainment
Ozone (O_3) (8 Hour Standard)	Non-Attainment (Extreme)	Non-Attainment
Particulate Matter ($PM_{2.5}$) (24 Hour Standard)	Non-Attainment (Serious)	--
Particulate Matter ($PM_{2.5}$) (Annual Standard)	Non-Attainment (Moderate)	Non-Attainment
Particulate Matter (PM_{10}) (24 Hour Standard)	Attainment (Maintenance)	Non-Attainment
Particulate Matter (PM_{10}) (Annual Standard)	--	Non-Attainment
Carbon Monoxide (CO) (1 Hour Standard)	Attainment (Maintenance)	Attainment
Carbon Monoxide (CO) (8 Hour Standard)	Attainment (Maintenance)	Attainment
Nitrogen Dioxide (NO_2) (1 Hour Standard)	Unclassifiable/Attainment	Attainment
Nitrogen Dioxide (NO_2) (Annual Standard)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (SO_2) (1 Hour Standard)	Unclassifiable/Attainment	Attainment
Sulfur Dioxide (SO_2) (24 Hour Standard)	--	Attainment
Lead (Pb) (30 Day Standard)	Unclassifiable/Attainment	--
Lead (Pb) (3 Month Standard)	--	Attainment
Sulfates (SO_{4-2}) (24 Hour Standard)	--	Attainment
Hydrogen Sulfide (H_2S) (1 Hour Standard)	--	Unclassified

Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2016; U.S. EPA, *Nonattainment Areas for Criteria Pollutants (Green Book)*, September 4, 2018.

Following are the SCAQMD rules that are required for the Project's construction activities:

- **Rule 401 (Visible Emissions)** – A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression Best Available Control Measures (BACMs) are summarized below.

  a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.

  b) All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.

  c) All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.

  d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.

  e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.

- **Rule 431.2** (**Sulfur Content of Liquid Fuels)** – This rule limits the sulfur content in diesel and other liquid fuels for the purpose of both reducing the formation of sulfur oxides and particulates during combustion and to enable the use of add-on control devices for diesel fueled internal combustion engines.

- **Rule 445 (Wood Burning)** – This rule prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Air Quality Thresholds

State CEQA Guidelines Appendix G

Based upon the criteria derived from State CEQA Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- 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,
- Expose sensitive receptors to substantial pollutant concentrations, or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

South Coast Air Quality Management District

Mass Emissions Thresholds. The SCAQMD significance criteria may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during project construction and operations, as indicated in Table 6: South Coast Air Quality Management District Emissions Thresholds.

Table 6: South Coast Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related
	Average Daily Emissions (pounds/day)	Average Daily Emission (pounds/day)
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO_X)	100	55
Sulfur Oxides (SO_X)	150	150
Coarse Particulates (PM_{10})	150	150
Fine Particulates ($PM_{2.5}$)	55	55

Source: South Coast Air Quality Management District, *CEQA Air Quality Significance Thresholds, April 2019.*.

Localized Carbon Monoxide**.** In addition to the daily thresholds listed above, a proposed project would be subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 ppm
- 8-hour = 9 ppm

The significance of localized impacts depends on whether ambient CO levels near a project site are above state and federal CO standards. The SCAB has been designated as attainment under the 1-hour and 8-hour standards.

Localized Significance Thresholds (LSTs)**.** In addition to the CO hotspot analysis, the SCAQMD developed LSTs for NO_2, CO, PM_{10}, and $PM_{2.5}$ emissions generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project site without expecting to cause or substantially contribute to an exceedance of the most stringent national or state ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb 5.0 acres or less on a single day. The City of Gardena is located within SCAQMD SRA 3 (Southwest Coastal LA County). Table 7: Local Significance Thresholds (Construction/Operations), provides the LSTs for a 1.0-acre, 2.0-acre, and 5.0-acre project site in SRA 3 with sensitive receptors located within 25 meters of a project site.

Table 7: Local Significance Thresholds (Construction/Operations)

Project Size	Nitrogen Oxide (NO_x) – lbs/day	Carbon Monoxide (CO) – lbs/day	Coarse Particulates (PM_{10}) – lbs/day	Fine Particulates ($PM_{2.5}$) – lbs/day
1.0 Acre	91/91	674/674	5/1	3/1
2.0 Acres	131/131	982/982	8/2	5/1
5.0 Acres	197/197	1,823/1,823	15/4	8/2

Source: South Coast Air Quality Management District, *Localized Significance Threshold Methodology,* July 2008.

4.2 Methodology

This air quality impact analysis considers construction and operational impacts associated with the proposed Project. Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with proposed Project construction would generate criteria air pollutants and precursor emissions. Air quality impacts were assessed according to CARB and SCAQMD recommended methodologies. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 Air Quality Analysis

Threshold 5.1 Would the Project conflict with or obstruct implementation of the applicable air quality plan?

As part of its enforcement responsibilities, the EPA requires that each state with nonattainment areas prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is within SCAB, which is under SCAQMD's jurisdiction. The SCAQMD is required, pursuant to the FCAA, to reduce criteria pollutant emissions for which SCAB is in non-attainment. To reduce such emissions, the SCAQMD drafted the 2016 AQMP. The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the EPA. The AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016-2040 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project is subject to the SCAQMD's AQMP.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- **Consistency Criterion No. 1**: A proposed project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of the AQMP's air quality standards or the interim emissions reductions.
- **Consistency Criterion No. 2**: A proposed project would not exceed the AQMP's assumptions or increments based on the years of the project build-out phase.

Consistency Criterion No. 1 refers to the CAAQS and NAAQS. As indicated in Table 8 and Table 9 below, the Project construction and operational emissions would be below SCAQMD's thresholds. As the Project would not generate localized construction or regional construction or operational emissions that would exceed SCAQMD thresholds of significance, the Project would not violate any air quality standards. Thus, the Project would be consistent with Criterion No.1. No impact would occur, and no mitigation is required.

Consistency Criterion No. 2 refers to SCAG's growth forecasts and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, projects that are consistent with the applicable assumptions used in AQMP development would not jeopardize

attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. Therefore, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and if the general plan was adopted prior to the applicable AQMP, then the increase in vehicle miles traveled (VMT) and/or population generated by said project would be consistent with the AQMP's assumed VMT and population growth.

The 5.46-acre Project site is designated Commercial with a Mixed-Use Overlay. The Mixed-Use Overlay permits residential development on selected areas designated for commercial and industrial land uses. For lots greater than 1.0 AC, the maximum allowed intensity and density (stepped density) within the Mixed Use Overlay designation are a floor-area ratio (FAR) of 0.5 and 30 DU/AC. Based on a 5.46-acre site and 30 DU/AC, the Project site's maximum residential development capacity is 164 DU, based on the current Mixed-Use Overlay designation. The Project proposes 105 DU at a density of 21.3 DU/acre, which would not exceed the site's maximum allowable density of 30 DU/AC and maximum residential development capacity of 164 DU, based on the current Mixed-Use Overlay designation. Therefore, the Project would be consistent with Criterion No. 2. A less than significant would occur, and no mitigation is required.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 5.2 Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Construction Emissions

Project construction activities would generate short-term criteria air pollutant emissions. The criteria pollutants of primary concern within the Project area include ozone-precursor pollutants (i.e., ROG and NO_x) and PM_{10} and $PM_{2.5}$. Construction-related emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutant emissions exceed the SCAQMD's thresholds of significance.

Construction results in temporary emissions resulting from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Airborne particulate matter emissions are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The duration of the Project's construction activities are estimated to last approximately 30 months. The Project's construction-related emissions were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Project demolition, site preparation, and grading are anticipated to begin in

the spring of 2020. The exact construction timeline is unknown, however to be conservative, earlier dates were utilized in the modeling. This approach is conservative given that emissions factors decrease in future years due to regulatory and technological improvements and fleet turnover. See Appendix A: Air Quality Data for additional information regarding the construction assumptions used in this analysis.

The Project's estimated maximum daily construction-related emissions are summarized in Table 8: Construction-Related Emissions. As indicated in Table 8, all criteria pollutant emissions would remain below their respective thresholds. While impacts would be considered less than significant, the proposed Project would be subject to compliance with SCAQMD Rules 402, 403, and 1113, described in the *Regulatory Setting – Regional* section above, to further reduce specific construction-related emissions. The proposed Project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay SCAB's goal for meeting attainment standards. A less than significant impact would occur, and no mitigation is required.

Table 8: Construction-Related Emissions (Maximum Pounds Per Day)

Construction Year	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2020	4.16	42.48	23.66	0.05	10.51	6.54
2021	2.30	19.32	19.98	0.03	1.83	1.14
2022	22.34	17.39	19.52	0.03	1.68	1.00
SCAQMD Threshold	*75*	*100*	*550*	*150*	*55*	*150*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. No mitigation was applied to construction equipment. Refer to Appendix A for Model Data Outputs.

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

Operational Emissions

The Project's operational emissions would be associated with area source emissions, energy source emissions, and mobile source emissions. Typically, area and energy sources are small sources that contribute very little emissions individually, but when combined may generate substantial amounts of pollutants. Area specific defaults in CalEEMod were used to calculate area and energy source emissions.

CalEEMod was also used to calculate pollutants emissions from vehicular trips generated from the proposed Project. CalEEMod default inputs, vehicle mix, and trip distances, were unaltered for this analysis. CalEEMod estimated emissions from Project operations are summarized in Table 9: Operational Emissions. Note that emissions rates differ from summer to winter because weather factors are dependent on the season and these factors affect pollutant mixing, dispersion, ozone formation, and other factors.

Table 9: Operational Emissions (Maximum Pounds Per Day)						
Source	**Reactive Organic Gases (ROG)**	**Nitrogen Oxide (NO_x)**	**Carbon Monoxide (CO)**	**Sulfur Dioxide (SO_2)**	**Coarse Particulate Matter (PM_{10})**	**Fine Particulate Matter ($PM_{2.5}$)**
Existing Project Site						
Area Source Emissions	1.00	< 0.01	< 0.01	0.00	< 0.01	< 0.01
Energy Emissions	0.02	0.18	0.15	< 0.01	0.01	0.01
Mobile Emissions	0.39	1.72	4.47	0.01	0.95	0.26
Total Emissions	**1.42**	**1.91**	**4.63**	**0.01**	**0.97**	**0.28**
Summer Emissions						
Area Source Emissions	3.59	1.58	9.30	< 0.01	0.16	0.16
Energy Emissions	0.05	0.46	0.20	< 0.01	0.03	0.03
Mobile Emissions	1.65	7.92	22.54	0.08	6.73	1.84
Total Emissions	**5.29**	**9.96**	**32.05**	**0.09**	**6.94**	**2.05**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area Source Emissions	3.59	1.58	9.30	< 0.01	0.16	0.16
Energy Emissions	0.05	0.46	0.20	< 0.01	0.03	0.03
Mobile Emissions	1.60	8.12	21.35	0.07	6.73	1.84
Total Emissions	**5.25**	**10.16**	**30.87**	**0.09**	**6.94**	**2.05**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Net Emissions						
Area Source Emissions	2.59	1.58	9.30	< 0.01	0.16	0.16
Energy Emissions	0.03	0.28	0.05	0.00	0.02	0.02
Mobile Emissions	1.26	6.40	18.07	0.07	5.78	1.58
Total Emissions	**3.70**	**8.25**	**27.42**	**0.08**	**5.97**	**1.77**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.						

As indicated in Table 9**,** emission calculations generated from CalEEMod demonstrate that Project operations would not exceed the SCAQMD thresholds for any criteria air pollutants. Therefore, impacts associated with Project operations would be less than significant.

Area Source Emissions

Area source emissions would be generated due to consumer products (i.e., household cleaners, architectural coating, and gasoline-powered landscaping and maintenance equipment that were previously not present on the site. As indicated in Table 9, the Project's unmitigated area source emissions would not exceed SCAQMD thresholds for either the winter or summer seasons.

Energy Source Emissions

Energy source emissions would be generated due to the Project's electricity and natural gas usage. The Project's primary uses of electricity and natural gas would be for space heating and cooling, water heating,

ventilation, lighting, appliances, and electronics. As indicated in Table 9, the Project's unmitigated energy source emissions would not exceed SCAQMD thresholds for criteria pollutants.

Mobile Source

Mobile source emissions are from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern. NO_X and ROG react with sunlight to form O_3, known as photochemical smog. Additionally, wind currents readily transport PM_{10} and $PM_{2.5}$. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod, as recommended by the SCAQMD. The Project's trip generation estimates were based on the standard Institute of Transportation Engineers (ITE) trip generation rates. Based on the ITE trip generation rates, the proposed Project would generate 918 average daily trips (ADT).[4] As indicated in Table 9, mobile source emissions would not exceed SCAQMD thresholds for criteria pollutants.

Cumulative Short-Term Emissions

SCAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for state standards and nonattainment for O_3 and $PM_{2.5}$ for federal standards. As discussed above, the Project's construction-related emissions by themselves would not exceed the SCAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether individual Project emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. The analysis assumed fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout SCAB, which would include related cumulative projects. As concluded above, the Project's construction-related impacts would be less than significant. Compliance with SCAQMD rules and regulations would further minimize the proposed Project's construction-related emissions. Therefore, Project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate local air quality. The Project's construction-related emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to SCAB's existing air quality conditions. Therefore, a

[4] Kimley-Horn & Associates, *Gardner Rosecrans Avenue Project – Trip Generation Analysis*, December 2019.

project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As indicated in Table 9, the Project's operational emissions would not exceed SCAQMD thresholds. As a result, the Project's operational emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Project operations would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 5.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

Localized Construction Significance Analysis

The nearest sensitive receptors to the Project site are single family homes, located approximately 310 feet (95 meters) to the south. To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, Table 10: Equipment-Specific Grading Rates, is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the Southwest Coastal LA County area (SRA 3), since this area includes the Project site. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The SCAQMD provides look-up tables for projects that disturb areas less than or equal to 5.0 acres. Project construction is anticipated to disturb a maximum of 3.5 acres in a single day.

Table 10: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Site Preparation	Rubber Tired Dozers	3	0.5	8	1.5
	Tractors/Loaders/Backhoes	4	0.5	8	2.0
				Total Acres Graded per Day	**3.5**

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

The SCAQMD's methodology states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptors to the Project site are the single-family residences located approximately 310 feet (95 meters) to the south. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, the 100-meter distance was used. Additionally, the 2-acre thresholds were used for operations. The LSTs increase as site acreages increase because pollutants would be able to

disperse more readily. Although the Project site is greater than 2 acres, the LST lookup tables can be conservatively used to show that even if the daily construction emissions were emitted on a 2-acre site, the impacts would be less than significant. Table 11: Localized Significance of Construction Emissions, indicates the results of localized emissions during Project construction.

Table 11 indicates that these pollutant emissions on the peak day of Project construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would result in a less than significant impact concerning LSTs during construction activities, and no mitigation is required.

Table 11: Localized Significance of Construction Emissions (Maximum Pounds Per Day)

Construction Activity	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Demolition (2020)	33.20	21.75	3.54	1.82
Site Preparation (2020)	42.41	21.51	10.32	6.49
Grading (2020)	26.38	16.05	4.22	2.68
Building Construction (2020)	19.19	16.84	1.11	1.05
Building Construction (2021)	17.43	16.57	0.95	0.90
Building Construction (2022)	15.61	16.36	0.80	0.76
Paving (2022)	11.12	14.58	0.56	0.52
Architectural Coating (2020)	1.40	1.81	0.08	0.08
SCAQMD Localized Screening Threshold (2 acres at 100 meters)	*139*	*1,697*	*37*	*12*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

Localized Operational Significance Analysis

LSTs for receptors located at 100 meters for SRA 3 were utilized in this analysis. The Project site is 5.46-acres, the 5.0-acre threshold was conservatively used for the Project. The on-site operational emissions are compared to the LST thresholds in Table 12: Localized Significance of Operational Emissions. Table 12 indicates that the maximum daily emissions of these pollutants during Project operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would result in a less than significant impact concerning LSTs during operational activities, and no mitigation is required.

Table 12: Localized Significance of Operational Emissions (Maximum Pounds Per Day)

Activity	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
On-Site Emissions (Area Sources)	1.58	9.30	0.16	0.16
SCAQMD Localized Screening Threshold (5 acres at 100 meters)	*139*	*1,697*	*9*	*3*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

The proposed Project would not involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants, and no significant toxic airborne emissions would result from operation of the proposed Project. Construction activities are subject to the regulations and laws relating to toxic air pollutants at the federal, state, and regional levels that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of toxic air contaminants would be less than significant, and no mitigation is required.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (Sierra Club v. County of Fresno [Friant Ranch, L.P.] [2018] Cal.5th, Case No. S219783). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone nonattainment areas such as the South Coast Air Basin) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program[5] was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts.

NO_X and ROG are precursor emissions that form ozone in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. Breathing ground-level ozone can result health effects that include: reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According the SCAQMD's 2016 AQMP, ozone, NO_X, and ROG have been decreasing in the Basin since 1975 and are projected to continue to decrease in the future. Although vehicle miles traveled in the Basin continue to increase, NO_X and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. The 2016 AQMP demonstrates how the SCAQMD's control strategy to meet the 8-hour ozone standard in 2023 would lead to sufficient NO_X emission reductions to attain the 1-hour ozone standard by 2022. In addition, since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the ozone standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of $PM_{2.5}$ standards.

[5] Code of Federal Regulation (CFR) [i.e., PSD (40 CFR 52.21, 40 CFR 51.166, 40 CFR 51.165 (b)), Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S)

The SCAQMD's air quality modeling demonstrates that NO_X reductions prove to be much more effective in reducing ozone levels and will also lead to significant improvement in $PM_{2.5}$ concentrations. NO_X-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2016 AQMP identifies robust NO_X reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NO_X emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The AQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

The 2016 AQMD also emphasizes that beginning in 2012, continued implementation of previously adopted regulations will lead to NO_X emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP proposed regulatory measures, a 30 percent reduction of NO_X from stationary sources is expected in the 15-year period between 2008 and 2023. This is in addition to significant NO_X reductions from stationary sources achieved in the decades prior to 2008.

As previously discussed, Project emissions would not exceed SCAQMD thresholds, thus, would be less than significant; (see Table 8 and Table 9). Localized effects of on-site Project emissions on nearby receptors were also found to be less than significant (see Table 11 and Table 12). The LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. As shown above, Project-related emissions would not exceed the regional thresholds or the LSTs, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels in excess of the health-based ambient air quality standards.

Carbon Monoxide Hotspots

A CO "hot spots" analysis is needed to determine whether the change in the level of service of an intersection resulting from the proposed Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, California's CO standard is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The 2016 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD *CO Hotspot Analysis*, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in Southern California with approximately 100,000 ADT, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm federal standard. The proposed Project would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's *CO Hotspot Analysis*. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 ADT, it can be reasonably inferred that CO hotspots would not be experienced at any Project area intersections from the 918 ADT attributable to the Project. Therefore, impacts would be less than significant, and no mitigation is required.

Construction-Related Diesel Particulate Matter

Project construction would generate DPM emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. 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. The nearest sensitive receptors to the Project site are located approximately 310 feet from the property boundary, and further from the major Project construction areas.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than 5.0 minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by Project construction activities, in and of itself, would not expose sensitive receptors to substantial amounts of air toxics. The Project would result in a less than significant impact, and no mitigation is required.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold 5.4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.*

During Project construction, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse rapidly. Therefore, impacts related to odors associated with the Project's construction-related activities would be less than significant.

Operations

The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Project proposes development of residential and commercial uses, which would not involve the types of uses that would emit objectionable odors affecting substantial numbers of people. The proposed Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the proposed Project would not create objectionable odors.

Mitigation Measures: No mitigation is required.

Level of Significance: No impact.

Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The cumulative setting for air quality includes the City of Gardena and SCAB. SCAB is designated as a nonattainment area for state standards of ozone, PM_{10}, and $PM_{2.5}$. SCAB is designated as a nonattainment area for federal standards of ozone and $PM_{2.5,}$ attainment and serious maintenance for federal PM_{10} standards, and is designated as unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

Cumulative Impacts and Mitigation Measures

The SCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with FCAA and CCAA requirements. As discussed above, the proposed Project would be consistent with the AQMP, which is intended to bring SCAB into attainment for all criteria pollutants. Since the Project's estimated construction and operational emissions would not

exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining both NAAQS and CAAQS, cumulative impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6 REFERENCES

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2. California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, 2018.
3. California Air Pollution Control Officers Association (CAPCOA), *Health Risk Assessments for Proposed Land Use Projects*, 2009.
4. California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Top Four Summaries from 2015 to 2017*, 2018.
5. California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.
6. California Air Resources Board, *Current Air Quality Standards*, 2016.
7. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000.
8. Federal Highway Administration*, Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents,* 2016.
9. Kimley-Horn & Associates, *Gardner Rosecrans Avenue Project - Trip Generation Analysis,* December 2019.
10. Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, 2015.
11. Southern California Association of Governments, *Regional Transportation Plan/Sustainable Communities Strategy*, 2016.
12. South Coast Air Quality Management District, *Air Quality Management Plan,* 2016.
13. South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.
14. South Coast Air Quality Management District, *Localized Significance Threshold Methodology*, 2009.
15. United States Environmental Protection Agency, *National Ambient Air Quality Standards Table*, 2016.
16. United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants*, 2018.
17. United States Environmental Protection Agency, *Policy Assessment for the Review of the Lead National Ambient Air Quality Standards*, 2013.

Appendix A

Air Quality Modeling Data

Gardner Rosecrans Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.43	1000sqft	0.00	3,430.00	0
Parking Lot	64.00	Space	0.58	25,600.00	0
Apartments Mid Rise	64.00	Dwelling Unit	3.00	64,000.00	183
Single Family Housing	41.00	Dwelling Unit	1.30	73,800.00	117
Regional Shopping Center	5.05	1000sqft	0.54	5,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	510.43	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per the SCE 2018 Corporate Responsibility and Sustainability Report. The report provides intensity factor of CO2e, the CO2 intensity factor is calculated as 513-25*0.029-298*0.00617=510.43 to avoid double counting.

Land Use - 41 single family, (50 3-story townhomes + 14 3-story live/work units) = 64, live/work workspace = 3,430 sf, retail = 5,050 sf
Density 21.3 DU/AC - site plan,
274 parking spaces / 210 garage and 64 parking lot1.59+

Construction Phase - used start and end construction dates and proportionally extended default schedule

Demolition - Construction Data Needs 175,000 sq ft of demo

Grading - Construction Data Needs Import 3615 CY

Architectural Coating - Architectural Coating - Rule 1113

Trips and VMT -

Vehicle Trips - 918 daily Trips with internal capture- from TIA, 918/64=14.34375

Woodstoves - no wood burning stoves

Energy Use -

Area Coating - low VOC

Operational Off-Road Equipment -

Construction Off-road Equipment Mitigation - Rule 403

Waste Mitigation -

Area Mitigation - use low VOC

Water Mitigation -

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
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50

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tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.20	0.00
tblFireplaces	NumberWood	2.05	0.00
tblGrading	MaterialImported	0.00	3,615.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	1.68	3.00
tblLandUse	LotAcreage	13.31	1.30
tblLandUse	LotAcreage	0.12	0.54
tblProjectCharacteristics	CO2IntensityFactor	702.44	510.43
tblVehicleTrips	ST_TR	6.39	14.34
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	14.34
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	14.34
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.3161	3.0908	2.2577	4.6800e-003	0.4831	0.1495	0.6327	0.2060	0.1392	0.3452	0.0000	417.1932	417.1932	0.0876	0.0000	419.3839
2021	0.2965	2.5262	2.5876	5.1300e-003	0.1198	0.1264	0.2462	0.0321	0.1189	0.1510	0.0000	452.4716	452.4716	0.0791	0.0000	454.4490
2022	0.5884	1.1566	1.3552	2.6000e-003	0.0540	0.0555	0.1095	0.0145	0.0521	0.0666	0.0000	229.2513	229.2513	0.0447	0.0000	230.3675
Maximum	**0.5884**	**3.0908**	**2.5876**	**5.1300e-003**	**0.4831**	**0.1495**	**0.6327**	**0.2060**	**0.1392**	**0.3452**	**0.0000**	**452.4716**	**452.4716**	**0.0876**	**0.0000**	**454.4490**

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	0.3161	3.0908	2.2577	4.6800e-003	0.2520	0.1495	0.4015	0.1021	0.1392	0.2413	0.0000	417.1929	417.1929	0.0876	0.0000	419.3835
2021	0.2965	2.5262	2.5876	5.1300e-003	0.1107	0.1264	0.2371	0.0299	0.1189	0.1487	0.0000	452.4713	452.4713	0.0791	0.0000	454.4486
2022	0.5884	1.1566	1.3552	2.6000e-003	0.0499	0.0555	0.1054	0.0135	0.0521	0.0656	0.0000	229.2511	229.2511	0.0447	0.0000	230.3673
Maximum	**0.5884**	**3.0908**	**2.5876**	**5.1300e-003**	**0.2520**	**0.1495**	**0.4015**	**0.1021**	**0.1392**	**0.2413**	**0.0000**	**452.4713**	**452.4713**	**0.0876**	**0.0000**	**454.4486**

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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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.21**	**0.00**	**24.73**	**42.41**	**0.00**	**19.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-2-2020**	**6-1-2020**	1.4158	1.4158
2	**6-2-2020**	**9-1-2020**	0.9344	0.9344
3	**9-2-2020**	**12-1-2020**	0.7736	0.7736
4	**12-2-2020**	**3-1-2021**	0.7187	0.7187
5	**3-2-2021**	**6-1-2021**	0.7094	0.7094
6	**6-2-2021**	**9-1-2021**	0.7087	0.7087
7	**9-2-2021**	**12-1-2021**	0.7023	0.7023
8	**12-2-2021**	**3-1-2022**	0.6493	0.6493
9	**3-2-2022**	**6-1-2022**	0.6214	0.6214
10	**6-2-2022**	**9-1-2022**	0.5776	0.5776
11	**9-2-2022**	**9-30-2022**	0.1274	0.1274
		Highest	1.4158	1.4158

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	0.6107	0.0310	1.0928	1.8000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003	0.0000	23.2028	23.2028	2.1200e-003	3.9000e-004	23.3730
Energy	9.8700e-003	0.0845	0.0368	5.4000e-004		6.8200e-003	6.8200e-003		6.8200e-003	6.8200e-003	0.0000	259.2811	259.2811	0.0111	3.6900e-003	260.6572
Mobile	0.2858	1.5053	3.9448	0.0144	1.1906	0.0120	1.2026	0.3192	0.0112	0.3304	0.0000	1,330.3097	1,330.3097	0.0684	0.0000	1,332.0196
Waste						0.0000	0.0000		0.0000	0.0000	17.4369	0.0000	17.4369	1.0305	0.0000	43.1992
Water						0.0000	0.0000		0.0000	0.0000	2.4825	36.2346	38.7170	0.2570	6.4500e-003	47.0638
Total	**0.9064**	**1.6208**	**5.0744**	**0.0151**	**1.1906**	**0.0264**	**1.2170**	**0.3192**	**0.0255**	**0.3447**	**19.9194**	**1,649.0281**	**1,668.9475**	**1.3691**	**0.0105**	**1,706.3128**

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	0.6083	0.0125	1.0849	6.0000e-005		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	1.7706	1.7706	1.7100e-003	0.0000	1.8134
Energy	9.8700e-003	0.0845	0.0368	5.4000e-004		6.8200e-003	6.8200e-003		6.8200e-003	6.8200e-003	0.0000	259.2811	259.2811	0.0111	3.6900e-003	260.6572
Mobile	0.2858	1.5053	3.9448	0.0144	1.1906	0.0120	1.2026	0.3192	0.0112	0.3304	0.0000	1,330.3097	1,330.3097	0.0684	0.0000	1,332.0196
Waste						0.0000	0.0000		0.0000	0.0000	8.7185	0.0000	8.7185	0.5153	0.0000	21.5996
Water						0.0000	0.0000		0.0000	0.0000	1.9860	30.7453	32.7312	0.2057	5.1800e-003	39.4174
Total	**0.9040**	**1.6023**	**5.0665**	**0.0150**	**1.1906**	**0.0249**	**1.2155**	**0.3192**	**0.0240**	**0.3432**	**10.7044**	**1,622.1066**	**1,632.8110**	**0.8021**	**8.8700e-003**	**1,655.5071**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.26**	**1.14**	**0.16**	**0.79**	**0.00**	**5.69**	**0.12**	**0.00**	**5.87**	**0.44**	**46.26**	**1.63**	**2.17**	**41.41**	**15.76**	**2.98**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	4/27/2020	5	41	
2	Site Preparation	Site Preparation	4/28/2020	5/26/2020	5	21	
3	Grading	Grading	5/27/2020	7/22/2020	5	41	
4	Building Construction	Building Construction	7/23/2020	5/25/2022	5	480	
5	Paving	Paving	5/26/2022	7/21/2022	5	41	
6	Architectural Coating	Architectural Coating	7/22/2022	9/16/2022	5	41	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20.5

Acres of Paving: 0.58

Residential Indoor: 279,045; Residential Outdoor: 93,015; Non-Residential Indoor: 12,720; Non-Residential Outdoor: 4,240; Striped Parking Area: 1,536 (Architectural Coating – sqft)

OffRoad Equipment

Gardner Rosecrans Project - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	796.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	452.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	74.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0861	0.0000	0.0861	0.0130	0.0000	0.0130	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0679	0.6806	0.4459	8.0000e-004		0.0340	0.0340		0.0316	0.0316	0.0000	69.6971	69.6971	0.0197	0.0000	70.1890
Total	**0.0679**	**0.6806**	**0.4459**	**8.0000e-004**	**0.0861**	**0.0340**	**0.1201**	**0.0130**	**0.0316**	**0.0447**	**0.0000**	**69.6971**	**69.6971**	**0.0197**	**0.0000**	**70.1890**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5100e-003	0.1182	0.0261	3.1000e-004	6.8400e-003	3.7000e-004	7.2100e-003	1.8800e-003	3.5000e-004	2.2300e-003	0.0000	30.6771	30.6771	2.1400e-003	0.0000	30.7306
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
Total	**4.9300e-003**	**0.1193**	**0.0387**	**3.4000e-004**	**0.0102**	**4.0000e-004**	**0.0106**	**2.7700e-003**	**3.8000e-004**	**3.1500e-003**	**0.0000**	**33.8178**	**33.8178**	**2.2400e-003**	**0.0000**	**33.8737**

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					0.0388	0.0000	0.0388	5.8700e-003	0.0000	5.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0679	0.6806	0.4459	8.0000e-004		0.0340	0.0340		0.0316	0.0316	0.0000	69.6971	69.6971	0.0197	0.0000	70.1889
Total	**0.0679**	**0.6806**	**0.4459**	**8.0000e-004**	**0.0388**	**0.0340**	**0.0728**	**5.8700e-003**	**0.0316**	**0.0375**	**0.0000**	**69.6971**	**69.6971**	**0.0197**	**0.0000**	**70.1889**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5100e-003	0.1182	0.0261	3.1000e-004	6.3800e-003	3.7000e-004	6.7400e-003	1.7600e-003	3.5000e-004	2.1200e-003	0.0000	30.6771	30.6771	2.1400e-003	0.0000	30.7306
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.1100e-003	3.0000e-005	3.1400e-003	8.3000e-004	3.0000e-005	8.6000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
Total	**4.9300e-003**	**0.1193**	**0.0387**	**3.4000e-004**	**9.4900e-003**	**4.0000e-004**	**9.8800e-003**	**2.5900e-003**	**3.8000e-004**	**2.9800e-003**	**0.0000**	**33.8178**	**33.8178**	**2.2400e-003**	**0.0000**	**33.8737**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1897	0.0000	0.1897	0.1043	0.0000	0.1043	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0428	0.4454	0.2259	4.0000e-004		0.0231	0.0231		0.0212	0.0212	0.0000	35.1022	35.1022	0.0114	0.0000	35.3860
Total	**0.0428**	**0.4454**	**0.2259**	**4.0000e-004**	**0.1897**	**0.0231**	**0.2128**	**0.1043**	**0.0212**	**0.1255**	**0.0000**	**35.1022**	**35.1022**	**0.0114**	**0.0000**	**35.3860**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	7.0000e-004	7.7800e-003	2.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9304	1.9304	6.0000e-005	0.0000	1.9319
Total	**8.7000e-004**	**7.0000e-004**	**7.7800e-003**	**2.0000e-005**	**2.0700e-003**	**2.0000e-005**	**2.0900e-003**	**5.5000e-004**	**2.0000e-005**	**5.7000e-004**	**0.0000**	**1.9304**	**1.9304**	**6.0000e-005**	**0.0000**	**1.9319**

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					0.0854	0.0000	0.0854	0.0469	0.0000	0.0469	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0428	0.4454	0.2259	4.0000e-004		0.0231	0.0231		0.0212	0.0212	0.0000	35.1022	35.1022	0.0114	0.0000	35.3860
Total	**0.0428**	**0.4454**	**0.2259**	**4.0000e-004**	**0.0854**	**0.0231**	**0.1084**	**0.0469**	**0.0212**	**0.0682**	**0.0000**	**35.1022**	**35.1022**	**0.0114**	**0.0000**	**35.3860**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	7.0000e-004	7.7800e-003	2.0000e-005	1.9100e-003	2.0000e-005	1.9300e-003	5.1000e-004	2.0000e-005	5.3000e-004	0.0000	1.9304	1.9304	6.0000e-005	0.0000	1.9319
Total	**8.7000e-004**	**7.0000e-004**	**7.7800e-003**	**2.0000e-005**	**1.9100e-003**	**2.0000e-005**	**1.9300e-003**	**5.1000e-004**	**2.0000e-005**	**5.3000e-004**	**0.0000**	**1.9304**	**1.9304**	**6.0000e-005**	**0.0000**	**1.9319**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1345	0.0000	0.1345	0.0691	0.0000	0.0691	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5409	0.3291	6.1000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	53.4204	53.4204	0.0173	0.0000	53.8524
Total	**0.0498**	**0.5409**	**0.3291**	**6.1000e-004**	**0.1345**	**0.0261**	**0.1606**	**0.0691**	**0.0240**	**0.0931**	**0.0000**	**53.4204**	**53.4204**	**0.0173**	**0.0000**	**53.8524**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9900e-003	0.0671	0.0148	1.8000e-004	3.8800e-003	2.1000e-004	4.0900e-003	1.0700e-003	2.0000e-004	1.2700e-003	0.0000	17.4197	17.4197	1.2100e-003	0.0000	17.4500
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
Total	**3.4100e-003**	**0.0683**	**0.0275**	**2.1000e-004**	**7.2500e-003**	**2.4000e-004**	**7.4900e-003**	**1.9600e-003**	**2.3000e-004**	**2.1900e-003**	**0.0000**	**20.5603**	**20.5603**	**1.3100e-003**	**0.0000**	**20.5931**

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					0.0605	0.0000	0.0605	0.0311	0.0000	0.0311	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5409	0.3291	6.1000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	53.4204	53.4204	0.0173	0.0000	53.8523
Total	**0.0498**	**0.5409**	**0.3291**	**6.1000e-004**	**0.0605**	**0.0261**	**0.0867**	**0.0311**	**0.0240**	**0.0551**	**0.0000**	**53.4204**	**53.4204**	**0.0173**	**0.0000**	**53.8523**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9900e-003	0.0671	0.0148	1.8000e-004	3.6200e-003	2.1000e-004	3.8300e-003	1.0000e-003	2.0000e-004	1.2000e-003	0.0000	17.4197	17.4197	1.2100e-003	0.0000	17.4500
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.1400e-003	0.0127	3.0000e-005	3.1100e-003	3.0000e-005	3.1400e-003	8.3000e-004	3.0000e-005	8.6000e-004	0.0000	3.1407	3.1407	1.0000e-004	0.0000	3.1431
Total	**3.4100e-003**	**0.0683**	**0.0275**	**2.1000e-004**	**6.7300e-003**	**2.4000e-004**	**6.9700e-003**	**1.8300e-003**	**2.3000e-004**	**2.0600e-003**	**0.0000**	**20.5603**	**20.5603**	**1.3100e-003**	**0.0000**	**20.5931**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1230	1.1128	0.9772	1.5600e-003		0.0648	0.0648		0.0609	0.0609	0.0000	134.3338	134.3338	0.0328	0.0000	135.1531
Total	**0.1230**	**1.1128**	**0.9772**	**1.5600e-003**		**0.0648**	**0.0648**		**0.0609**	**0.0609**	**0.0000**	**134.3338**	**134.3338**	**0.0328**	**0.0000**	**135.1531**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5800e-003	0.1069	0.0289	2.5000e-004	6.2100e-003	5.0000e-004	6.7100e-003	1.7900e-003	4.8000e-004	2.2700e-003	0.0000	24.4948	24.4948	1.5600e-003	0.0000	24.5337
Worker	0.0198	0.0160	0.1767	4.9000e-004	0.0470	4.0000e-004	0.0474	0.0125	3.7000e-004	0.0129	0.0000	43.8364	43.8364	1.3800e-003	0.0000	43.8709
Total	**0.0234**	**0.1228**	**0.2056**	**7.4000e-004**	**0.0532**	**9.0000e-004**	**0.0541**	**0.0143**	**8.5000e-004**	**0.0151**	**0.0000**	**68.3312**	**68.3312**	**2.9400e-003**	**0.0000**	**68.4046**

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	0.1230	1.1128	0.9772	1.5600e-003		0.0648	0.0648		0.0609	0.0609	0.0000	134.3336	134.3336	0.0328	0.0000	135.1530
Total	**0.1230**	**1.1128**	**0.9772**	**1.5600e-003**		**0.0648**	**0.0648**		**0.0609**	**0.0609**	**0.0000**	**134.3336**	**134.3336**	**0.0328**	**0.0000**	**135.1530**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5800e-003	0.1069	0.0289	2.5000e-004	5.8200e-003	5.0000e-004	6.3100e-003	1.7000e-003	4.8000e-004	2.1700e-003	0.0000	24.4948	24.4948	1.5600e-003	0.0000	24.5337
Worker	0.0198	0.0160	0.1767	4.9000e-004	0.0434	4.0000e-004	0.0438	0.0116	3.7000e-004	0.0120	0.0000	43.8364	43.8364	1.3800e-003	0.0000	43.8709
Total	**0.0234**	**0.1228**	**0.2056**	**7.4000e-004**	**0.0492**	**9.0000e-004**	**0.0501**	**0.0133**	**8.5000e-004**	**0.0141**	**0.0000**	**68.3312**	**68.3312**	**2.9400e-003**	**0.0000**	**68.4046**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8900e-003	0.2189	0.0594	5.6000e-004	0.0140	4.5000e-004	0.0144	4.0300e-003	4.3000e-004	4.4600e-003	0.0000	54.6853	54.6853	3.3500e-003	0.0000	54.7691
Worker	0.0416	0.0324	0.3652	1.0600e-003	0.1058	8.7000e-004	0.1067	0.0281	8.0000e-004	0.0289	0.0000	95.4997	95.4997	2.8100e-003	0.0000	95.5700
Total	**0.0484**	**0.2513**	**0.4246**	**1.6200e-003**	**0.1198**	**1.3200e-003**	**0.1211**	**0.0321**	**1.2300e-003**	**0.0334**	**0.0000**	**150.1850**	**150.1850**	**6.1600e-003**	**0.0000**	**150.3391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8900e-003	0.2189	0.0594	5.6000e-004	0.0131	4.5000e-004	0.0135	3.8100e-003	4.3000e-004	4.2400e-003	0.0000	54.6853	54.6853	3.3500e-003	0.0000	54.7691
Worker	0.0416	0.0324	0.3652	1.0600e-003	0.0976	8.7000e-004	0.0984	0.0261	8.0000e-004	0.0269	0.0000	95.4997	95.4997	2.8100e-003	0.0000	95.5700
Total	**0.0484**	**0.2513**	**0.4246**	**1.6200e-003**	**0.1107**	**1.3200e-003**	**0.1120**	**0.0299**	**1.2300e-003**	**0.0311**	**0.0000**	**150.1850**	**150.1850**	**6.1600e-003**	**0.0000**	**150.3391**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0879	0.8042	0.8427	1.3900e-003		0.0417	0.0417		0.0392	0.0392	0.0000	119.3385	119.3385	0.0286	0.0000	120.0533
Total	**0.0879**	**0.8042**	**0.8427**	**1.3900e-003**		**0.0417**	**0.0417**		**0.0392**	**0.0392**	**0.0000**	**119.3385**	**119.3385**	**0.0286**	**0.0000**	**120.0533**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5500e-003	0.0821	0.0222	2.2000e-004	5.5100e-003	1.5000e-004	5.6700e-003	1.5900e-003	1.5000e-004	1.7400e-003	0.0000	21.3912	21.3912	1.2800e-003	0.0000	21.4232
Worker	0.0154	0.0115	0.1328	4.0000e-004	0.0418	3.3000e-004	0.0421	0.0111	3.1000e-004	0.0114	0.0000	36.3628	36.3628	1.0000e-003	0.0000	36.3879
Total	**0.0179**	**0.0936**	**0.1550**	**6.2000e-004**	**0.0473**	**4.8000e-004**	**0.0478**	**0.0127**	**4.6000e-004**	**0.0131**	**0.0000**	**57.7541**	**57.7541**	**2.2800e-003**	**0.0000**	**57.8110**

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	0.0879	0.8042	0.8427	1.3900e-003		0.0417	0.0417		0.0392	0.0392	0.0000	119.3384	119.3384	0.0286	0.0000	120.0531
Total	**0.0879**	**0.8042**	**0.8427**	**1.3900e-003**		**0.0417**	**0.0417**		**0.0392**	**0.0392**	**0.0000**	**119.3384**	**119.3384**	**0.0286**	**0.0000**	**120.0531**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5500e-003	0.0821	0.0222	2.2000e-004	5.1600e-003	1.5000e-004	5.3200e-003	1.5100e-003	1.5000e-004	1.6500e-003	0.0000	21.3912	21.3912	1.2800e-003	0.0000	21.4232
Worker	0.0154	0.0115	0.1328	4.0000e-004	0.0385	3.3000e-004	0.0388	0.0103	3.1000e-004	0.0106	0.0000	36.3628	36.3628	1.0000e-003	0.0000	36.3879
Total	**0.0179**	**0.0936**	**0.1550**	**6.2000e-004**	**0.0437**	**4.8000e-004**	**0.0442**	**0.0118**	**4.6000e-004**	**0.0123**	**0.0000**	**57.7541**	**57.7541**	**2.2800e-003**	**0.0000**	**57.8110**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0226	0.2281	0.2989	4.7000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	41.0565	41.0565	0.0133	0.0000	41.3885
Paving	7.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0234**	**0.2281**	**0.2989**	**4.7000e-004**		**0.0116**	**0.0116**		**0.0107**	**0.0107**	**0.0000**	**41.0565**	**41.0565**	**0.0133**	**0.0000**	**41.3885**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	2.0000e-005	9.2000e-004	0.0000	2.9340	2.9340	8.0000e-005	0.0000	2.9361
Total	**1.2400e-003**	**9.3000e-004**	**0.0107**	**3.0000e-005**	**3.3700e-003**	**3.0000e-005**	**3.4000e-003**	**8.9000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**2.9340**	**2.9340**	**8.0000e-005**	**0.0000**	**2.9361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0226	0.2281	0.2989	4.7000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	41.0564	41.0564	0.0133	0.0000	41.3884
Paving	7.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0234**	**0.2281**	**0.2989**	**4.7000e-004**		**0.0116**	**0.0116**		**0.0107**	**0.0107**	**0.0000**	**41.0564**	**41.0564**	**0.0133**	**0.0000**	**41.3884**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.1100e-003	3.0000e-005	3.1300e-003	8.3000e-004	2.0000e-005	8.6000e-004	0.0000	2.9340	2.9340	8.0000e-005	0.0000	2.9361
Total	**1.2400e-003**	**9.3000e-004**	**0.0107**	**3.0000e-005**	**3.1100e-003**	**3.0000e-005**	**3.1300e-003**	**8.3000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.9340**	**2.9340**	**8.0000e-005**	**0.0000**	**2.9361**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4526					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
Total	**0.4568**	**0.0289**	**0.0372**	**6.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.2342**	**5.2342**	**3.4000e-004**	**0.0000**	**5.2427**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.3700e-003	3.0000e-005	3.4000e-003	8.9000e-004	2.0000e-005	9.2000e-004	0.0000	2.9340	2.9340	8.0000e-005	0.0000	2.9361
Total	**1.2400e-003**	**9.3000e-004**	**0.0107**	**3.0000e-005**	**3.3700e-003**	**3.0000e-005**	**3.4000e-003**	**8.9000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**2.9340**	**2.9340**	**8.0000e-005**	**0.0000**	**2.9361**

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	0.4526					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
Total	**0.4568**	**0.0289**	**0.0372**	**6.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.2342**	**5.2342**	**3.4000e-004**	**0.0000**	**5.2427**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.1100e-003	3.0000e-005	3.1300e-003	8.3000e-004	2.0000e-005	8.6000e-004	0.0000	2.9340	2.9340	8.0000e-005	0.0000	2.9361
Total	**1.2400e-003**	**9.3000e-004**	**0.0107**	**3.0000e-005**	**3.1100e-003**	**3.0000e-005**	**3.1300e-003**	**8.3000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.9340**	**2.9340**	**8.0000e-005**	**0.0000**	**2.9361**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2858	1.5053	3.9448	0.0144	1.1906	0.0120	1.2026	0.3192	0.0112	0.3304	0.0000	1,330.3097	1,330.3097	0.0684	0.0000	1,332.0196
Unmitigated	0.2858	1.5053	3.9448	0.0144	1.1906	0.0120	1.2026	0.3192	0.0112	0.3304	0.0000	1,330.3097	1,330.3097	0.0684	0.0000	1,332.0196

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	918.00	918.00	918.00	3,136,945	3,136,945
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	918.00	918.00	918.00	3,136,945	3,136,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
General Office Building	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Parking Lot	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Regional Shopping Center	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Single Family Housing	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

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	161.5821	161.5821	9.1800e-003	1.9000e-003	162.3776
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	161.5821	161.5821	9.1800e-003	1.9000e-003	162.3776
NaturalGas Mitigated	9.8700e-003	0.0845	0.0368	5.4000e-004		6.8200e-003	6.8200e-003		6.8200e-003	6.8200e-003	0.0000	97.6989	97.6989	1.8700e-003	1.7900e-003	98.2795
NaturalGas Unmitigated	9.8700e-003	0.0845	0.0368	5.4000e-004		6.8200e-003	6.8200e-003		6.8200e-003	6.8200e-003	0.0000	97.6989	97.6989	1.8700e-003	1.7900e-003	98.2795

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	731357	3.9400e-003	0.0337	0.0143	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	39.0280	39.0280	7.5000e-004	7.2000e-004	39.2599
General Office Building	31350.2	1.7000e-004	1.5400e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6730	1.6730	3.0000e-005	3.0000e-005	1.6829
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
Regional Shopping Center	10100	5.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5390	0.5390	1.0000e-005	1.0000e-005	0.5422
Single Family Housing	1.058e+006	5.7000e-003	0.0488	0.0208	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4590	56.4590	1.0800e-003	1.0400e-003	56.7945
Total		**9.8600e-003**	**0.0845**	**0.0368**	**5.4000e-004**		**6.8200e-003**	**6.8200e-003**		**6.8200e-003**	**6.8200e-003**	**0.0000**	**97.6989**	**97.6989**	**1.8700e-003**	**1.8000e-003**	**98.2795**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	731357	3.9400e-003	0.0337	0.0143	2.2000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	39.0280	39.0280	7.5000e-004	7.2000e-004	39.2599
General Office Building	31350.2	1.7000e-004	1.5400e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6730	1.6730	3.0000e-005	3.0000e-005	1.6829
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
Regional Shopping Center	10100	5.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5390	0.5390	1.0000e-005	1.0000e-005	0.5422
Single Family Housing	1.058e+006	5.7000e-003	0.0488	0.0208	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4590	56.4590	1.0800e-003	1.0400e-003	56.7945
Total		**9.8600e-003**	**0.0845**	**0.0368**	**5.4000e-004**		**6.8200e-003**	**6.8200e-003**		**6.8200e-003**	**6.8200e-003**	**0.0000**	**97.6989**	**97.6989**	**1.8700e-003**	**1.8000e-003**	**98.2795**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	254419	58.9050	3.3500e-003	6.9000e-004	59.1950
General Office Building	47985.7	11.1100	6.3000e-004	1.3000e-004	11.1647
Parking Lot	8960	2.0745	1.2000e-004	2.0000e-005	2.0847
Regional Shopping Center	57772	13.3758	7.6000e-004	1.6000e-004	13.4416
Single Family Housing	328760	76.1169	4.3200e-003	8.9000e-004	76.4917
Total		**161.5821**	**9.1800e-003**	**1.8900e-003**	**162.3776**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	254419	58.9050	3.3500e-003	6.9000e-004	59.1950
General Office Building	47985.7	11.1100	6.3000e-004	1.3000e-004	11.1647
Parking Lot	8960	2.0745	1.2000e-004	2.0000e-005	2.0847
Regional Shopping Center	57772	13.3758	7.6000e-004	1.6000e-004	13.4416
Single Family Housing	328760	76.1169	4.3200e-003	8.9000e-004	76.4917
Total		**161.5821**	**9.1800e-003**	**1.8900e-003**	**162.3776**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.6083	0.0125	1.0849	6.0000e-005		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	1.7706	1.7706	1.7100e-003	0.0000	1.8134
Unmitigated	0.6107	0.0310	1.0928	1.8000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003	0.0000	23.2028	23.2028	2.1200e-003	3.9000e-004	23.3730

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	0.0454					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.1700e-003	0.0185	7.8800e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4322	21.4322	4.1000e-004	3.9000e-004	21.5596
Landscaping	0.0328	0.0125	1.0849	6.0000e-005		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	1.7706	1.7706	1.7100e-003	0.0000	1.8134
Total	**0.6107**	**0.0310**	**1.0928**	**1.8000e-004**		**7.4900e-003**	**7.4900e-003**		**7.4900e-003**	**7.4900e-003**	**0.0000**	**23.2028**	**23.2028**	**2.1200e-003**	**3.9000e-004**	**23.3730**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0453					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0328	0.0125	1.0849	6.0000e-005		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	1.7706	1.7706	1.7100e-003	0.0000	1.8134
Total	**0.6083**	**0.0125**	**1.0849**	**6.0000e-005**		**5.9900e-003**	**5.9900e-003**		**5.9900e-003**	**5.9900e-003**	**0.0000**	**1.7706**	**1.7706**	**1.7100e-003**	**0.0000**	**1.8134**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.7312	0.2057	5.1800e-003	39.4174
Unmitigated	38.7170	0.2570	6.4500e-003	47.0638

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.16986 / 2.62882	20.6559	0.1370	3.4400e-003	25.1040
General Office Building	0.609627 / 0.373642	2.9924	0.0200	5.0000e-004	3.6425
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.374066 / 0.229266	1.8361	0.0123	3.1000e-004	2.2351
Single Family Housing	2.67132 / 1.68409	13.2327	0.0878	2.2000e-003	16.0823
Total		**38.7170**	**0.2570**	**6.4500e-003**	**47.0639**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.33589 / 2.46847	17.4646	0.1096	2.7600e-003	21.0278
General Office Building	0.487701 / 0.35085	2.5275	0.0160	4.0000e-004	3.0483
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.299253 / 0.215281	1.5509	9.8300e-003	2.5000e-004	1.8704
Single Family Housing	2.13705 / 1.58136	11.1883	0.0702	1.7700e-003	13.4709
Total		**32.7312**	**0.2057**	**5.1800e-003**	**39.4174**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.7185	0.5153	0.0000	21.5996
Unmitigated	17.4369	1.0305	0.0000	43.1992

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	29.44	5.9761	0.3532	0.0000	14.8054
General Office Building	3.19	0.6475	0.0383	0.0000	1.6043
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	5.3	1.0759	0.0636	0.0000	2.6654
Single Family Housing	47.97	9.7375	0.5755	0.0000	24.1242
Total		**17.4369**	**1.0305**	**0.0000**	**43.1993**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	14.72	2.9880	0.1766	0.0000	7.4027
General Office Building	1.595	0.3238	0.0191	0.0000	0.8021
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.65	0.5379	0.0318	0.0000	1.3327
Single Family Housing	23.985	4.8687	0.2877	0.0000	12.0621
Total		**8.7185**	**0.5152**	**0.0000**	**21.5996**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Gardner Rosecrans Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.43	1000sqft	0.00	3,430.00	0
Parking Lot	64.00	Space	0.58	25,600.00	0
Apartments Mid Rise	64.00	Dwelling Unit	3.00	64,000.00	183
Single Family Housing	41.00	Dwelling Unit	1.30	73,800.00	117
Regional Shopping Center	5.05	1000sqft	0.54	5,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	510.43	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per the SCE 2018 Corporate Responsibility and Sustainability Report. The report provides intensity factor of CO2e, the CO2 intensity factor is calculated as 513-25*0.029-298*0.00617=510.43 to avoid double counting.

Land Use - 41 single family, (50 3-story townhomes + 14 3-story live/work units) = 64, live/work workspace = 3,430 sf, retail = 5,050 sf
Density 21.3 DU/AC - site plan,
274 parking spaces / 210 garage and 64 parking lot1.59+

Construction Phase - used start and end construction dates and proportionally extended default schedule

Demolition - Construction Data Needs 175,000 sq ft of demo

Grading - Construction Data Needs Import 3615 CY

Architectural Coating - Architectural Coating - Rule 1113

Trips and VMT -

Vehicle Trips - 918 daily Trips with internal capture- from TIA, 918/64=14.34375

Woodstoves - no wood burning stoves

Energy Use -

Area Coating - low VOC

Operational Off-Road Equipment -

Construction Off-road Equipment Mitigation - Rule 403

Waste Mitigation -

Area Mitigation - use low VOC

Water Mitigation -

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
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50

Gardner Rosecrans Project - Los Angeles-South Coast County, Summer

tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.20	0.00
tblFireplaces	NumberWood	2.05	0.00
tblGrading	MaterialImported	0.00	3,615.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	1.68	3.00
tblLandUse	LotAcreage	13.31	1.30
tblLandUse	LotAcreage	0.12	0.54
tblProjectCharacteristics	CO2IntensityFactor	702.44	510.43
tblVehicleTrips	ST_TR	6.39	14.34
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	14.34
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	14.34
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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	4.1593	42.4763	23.6470	0.0559	18.2675	2.1991	20.4666	9.9840	2.0232	12.0072	0.0000	5,585.6880	5,585.6880	1.1985	0.0000	5,615.1032
2021	2.2698	19.3007	19.9872	0.0398	0.9360	0.9687	1.9047	0.2507	0.9107	1.1614	0.0000	3,863.3507	3,863.3507	0.6684	0.0000	3,880.0600
2022	22.3407	17.3822	19.5215	0.0394	0.9360	0.8184	1.7544	0.2507	0.7699	1.0207	0.0000	3,830.6067	3,830.6067	0.7186	0.0000	3,847.1309
Maximum	**22.3407**	**42.4763**	**23.6470**	**0.0559**	**18.2675**	**2.1991**	**20.4666**	**9.9840**	**2.0232**	**12.0072**	**0.0000**	**5,585.6880**	**5,585.6880**	**1.1985**	**0.0000**	**5,615.1032**

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	4.1593	42.4763	23.6470	0.0559	8.3153	2.1991	10.5144	4.5183	2.0232	6.5415	0.0000	5,585.6880	5,585.6880	1.1985	0.0000	5,615.1032
2021	2.2698	19.3007	19.9872	0.0398	0.8643	0.9687	1.8330	0.2331	0.9107	1.1438	0.0000	3,863.3507	3,863.3507	0.6684	0.0000	3,880.0600
2022	22.3407	17.3822	19.5215	0.0394	0.8643	0.8184	1.6827	0.2331	0.7699	1.0031	0.0000	3,830.6067	3,830.6067	0.7186	0.0000	3,847.1309
Maximum	**22.3407**	**42.4763**	**23.6470**	**0.0559**	**8.3153**	**2.1991**	**10.5144**	**4.5183**	**2.0232**	**6.5415**	**0.0000**	**5,585.6880**	**5,585.6880**	**1.1985**	**0.0000**	**5,615.1032**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.13	0.00	41.85	52.46	0.00	38.77	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.5902	1.5806	9.3094	9.9100e-003		0.1676	0.1676		0.1676	0.1676	0.0000	1,905.6139	1,905.6139	0.0513	0.0347	1,917.2224
Energy	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144
Mobile	1.6554	7.9254	22.5449	0.0820	6.6705	0.0661	6.7366	1.7852	0.0617	1.8468		8,347.5380	8,347.5380	0.4173		8,357.9710
Total	**5.2997**	**9.9689**	**32.0559**	**0.0949**	**6.6705**	**0.2711**	**6.9417**	**1.7852**	**0.2667**	**2.0518**	**0.0000**	**10,843.2595**	**10,843.2595**	**0.4800**	**0.0455**	**10,868.8078**

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	3.4160	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479	0.0000	15.6139	15.6139	0.0151	0.0000	15.9911
Energy	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144
Mobile	1.6554	7.9254	22.5449	0.0820	6.6705	0.0661	6.7366	1.7852	0.0617	1.8468		8,347.5380	8,347.5380	0.4173		8,357.9710
Total	**5.1255**	**8.4884**	**31.4259**	**0.0854**	**6.6705**	**0.1514**	**6.8220**	**1.7852**	**0.1470**	**1.9321**	**0.0000**	**8,953.2595**	**8,953.2595**	**0.4437**	**0.0108**	**8,967.5765**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	3.29	14.85	1.97	9.96	0.00	44.15	1.72	0.00	44.89	5.83	0.00	17.43	17.43	7.55	76.20	17.49

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	4/27/2020	5	41	
2	Site Preparation	Site Preparation	4/28/2020	5/26/2020	5	21	
3	Grading	Grading	5/27/2020	7/22/2020	5	41	
4	Building Construction	Building Construction	7/23/2020	5/25/2022	5	480	
5	Paving	Paving	5/26/2022	7/21/2022	5	41	
6	Architectural Coating	Architectural Coating	7/22/2022	9/16/2022	5	41	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20.5

Acres of Paving: 0.58

Residential Indoor: 279,045; Residential Outdoor: 93,015; Non-Residential Indoor: 12,720; Non-Residential Outdoor: 4,240; Striped Parking Area: 1,536 (Architectural Coating – sqft)

OffRoad Equipment

Gardner Rosecrans Project - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	796.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	452.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	74.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2015	0.0000	4.2015	0.6362	0.0000	0.6362			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**4.2015**	**1.6587**	**5.8602**	**0.6362**	**1.5419**	**2.1780**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1696	5.5825	1.2370	0.0153	0.3395	0.0178	0.3573	0.0931	0.0171	0.1101		1,661.5662	1,661.5662	0.1131		1,664.3936
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.2386**	**5.6316**	**1.8938**	**0.0171**	**0.5071**	**0.0192**	**0.5263**	**0.1375**	**0.0183**	**0.1559**		**1,837.9831**	**1,837.9831**	**0.1187**		**1,840.9496**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.8907	0.0000	1.8907	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**1.8907**	**1.6587**	**3.5494**	**0.2863**	**1.5419**	**1.8281**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1696	5.5825	1.2370	0.0153	0.3164	0.0178	0.3342	0.0874	0.0171	0.1044		1,661.5662	1,661.5662	0.1131		1,664.3936
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1546	1.4000e-003	0.1560	0.0413	1.2900e-003	0.0425		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.2386**	**5.6316**	**1.8938**	**0.0171**	**0.4709**	**0.0192**	**0.4901**	**0.1286**	**0.0183**	**0.1470**		**1,837.9831**	**1,837.9831**	**0.1187**		**1,840.9496**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	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**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0828**	**0.0589**	**0.7881**	**2.1300e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**211.7003**	**211.7003**	**6.6700e-003**		**211.8672**

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**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.1855	1.6800e-003	0.1871	0.0495	1.5500e-003	0.0510		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0828**	**0.0589**	**0.7881**	**2.1300e-003**	**0.1855**	**1.6800e-003**	**0.1871**	**0.0495**	**1.5500e-003**	**0.0510**		**211.7003**	**211.7003**	**6.6700e-003**		**211.8672**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5623	0.0000	6.5623	3.3690	0.0000	3.3690			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**	**6.5623**	**1.2734**	**7.8357**	**3.3690**	**1.1716**	**4.5405**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0963	3.1700	0.7024	8.7100e-003	0.1928	0.0101	0.2029	0.0528	9.6800e-003	0.0625		943.5024	943.5024	0.0642		945.1079
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.1653**	**3.2191**	**1.3592**	**0.0105**	**0.3604**	**0.0115**	**0.3719**	**0.0973**	**0.0110**	**0.1083**		**1,119.9193**	**1,119.9193**	**0.0698**		**1,121.6639**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9530	0.0000	2.9530	1.5161	0.0000	1.5161			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**	**2.9530**	**1.2734**	**4.2265**	**1.5161**	**1.1716**	**2.6876**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0963	3.1700	0.7024	8.7100e-003	0.1796	0.0101	0.1898	0.0496	9.6800e-003	0.0593		943.5024	943.5024	0.0642		945.1079
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0491	0.6568	1.7700e-003	0.1546	1.4000e-003	0.1560	0.0413	1.2900e-003	0.0425		176.4169	176.4169	5.5600e-003		176.5560
Total	**0.1653**	**3.2191**	**1.3592**	**0.0105**	**0.3342**	**0.0115**	**0.3457**	**0.0909**	**0.0110**	**0.1018**		**1,119.9193**	**1,119.9193**	**0.0698**		**1,121.6639**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
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**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0605	1.8083	0.4738	4.4100e-003	0.1088	8.5100e-003	0.1174	0.0313	8.1400e-003	0.0395		470.9420	470.9420	0.0287		471.6604
Worker	0.3406	0.2423	3.2401	8.7400e-003	0.8272	6.9100e-003	0.8341	0.2194	6.3700e-003	0.2257		870.3235	870.3235	0.0274		871.0095
Total	**0.4010**	**2.0506**	**3.7139**	**0.0132**	**0.9360**	**0.0154**	**0.9514**	**0.2507**	**0.0145**	**0.2652**		**1,341.2655**	**1,341.2655**	**0.0562**		**1,342.6700**

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**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0605	1.8083	0.4738	4.4100e-003	0.1019	8.5100e-003	0.1104	0.0296	8.1400e-003	0.0378		470.9420	470.9420	0.0287		471.6604
Worker	0.3406	0.2423	3.2401	8.7400e-003	0.7624	6.9100e-003	0.7693	0.2035	6.3700e-003	0.2099		870.3235	870.3235	0.0274		871.0095
Total	**0.4010**	**2.0506**	**3.7139**	**0.0132**	**0.8643**	**0.0154**	**0.8797**	**0.2331**	**0.0145**	**0.2476**		**1,341.2655**	**1,341.2655**	**0.0562**		**1,342.6700**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
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**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1088	3.3800e-003	0.1122	0.0313	3.2300e-003	0.0346		467.2971	467.2971	0.0275		467.9853
Worker	0.3172	0.2180	2.9805	8.4600e-003	0.8272	6.6800e-003	0.8338	0.2194	6.1600e-003	0.2255		842.6897	842.6897	0.0248		843.3104
Total	**0.3689**	**1.8686**	**3.4120**	**0.0128**	**0.9360**	**0.0101**	**0.9460**	**0.2507**	**9.3900e-003**	**0.2601**		**1,309.9868**	**1,309.9868**	**0.0524**		**1,311.2958**

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**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0517	1.6505	0.4315	4.3700e-003	0.1019	3.3800e-003	0.1052	0.0296	3.2300e-003	0.0329		467.2971	467.2971	0.0275		467.9853
Worker	0.3172	0.2180	2.9805	8.4600e-003	0.7624	6.6800e-003	0.7691	0.2035	6.1600e-003	0.2096		842.6897	842.6897	0.0248		843.3104
Total	**0.3689**	**1.8686**	**3.4120**	**0.0128**	**0.8643**	**0.0101**	**0.8743**	**0.2331**	**9.3900e-003**	**0.2425**		**1,309.9868**	**1,309.9868**	**0.0524**		**1,311.2958**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1088	2.9500e-003	0.1118	0.0313	2.8200e-003	0.0342		463.2260	463.2260	0.0266		463.8906
Worker	0.2971	0.1970	2.7499	8.1600e-003	0.8272	6.4700e-003	0.8336	0.2194	5.9600e-003	0.2253		813.0471	813.0471	0.0224		813.6081
Total	**0.3456**	**1.7666**	**3.1581**	**0.0125**	**0.9360**	**9.4200e-003**	**0.9454**	**0.2507**	**8.7800e-003**	**0.2595**		**1,276.2731**	**1,276.2731**	**0.0490**		**1,277.4987**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0485	1.5696	0.4083	4.3300e-003	0.1019	2.9500e-003	0.1048	0.0296	2.8200e-003	0.0325		463.2260	463.2260	0.0266		463.8906
Worker	0.2971	0.1970	2.7499	8.1600e-003	0.7624	6.4700e-003	0.7689	0.2035	5.9600e-003	0.2094		813.0471	813.0471	0.0224		813.6081
Total	**0.3456**	**1.7666**	**3.1581**	**0.0125**	**0.8643**	**9.4200e-003**	**0.8737**	**0.2331**	**8.7800e-003**	**0.2419**		**1,276.2731**	**1,276.2731**	**0.0490**		**1,277.4987**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1399**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1399**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1546	1.3100e-003	0.1559	0.0413	1.2100e-003	0.0425		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1546**	**1.3100e-003**	**0.1559**	**0.0413**	**1.2100e-003**	**0.0425**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.0759					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**22.2805**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

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	22.0759					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**22.2805**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1546	1.3100e-003	0.1559	0.0413	1.2100e-003	0.0425		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1546**	**1.3100e-003**	**0.1559**	**0.0413**	**1.2100e-003**	**0.0425**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6554	7.9254	22.5449	0.0820	6.6705	0.0661	6.7366	1.7852	0.0617	1.8468		8,347.5380	8,347.5380	0.4173		8,357.9710
Unmitigated	1.6554	7.9254	22.5449	0.0820	6.6705	0.0661	6.7366	1.7852	0.0617	1.8468		8,347.5380	8,347.5380	0.4173		8,357.9710

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	918.00	918.00	918.00	3,136,945	3,136,945
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	918.00	918.00	918.00	3,136,945	3,136,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
General Office Building	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Parking Lot	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Regional Shopping Center	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Single Family Housing	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

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	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144
NaturalGas Unmitigated	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2003.72	0.0216	0.1847	0.0786	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.7317	235.7317	4.5200e-003	4.3200e-003	237.1325
General Office Building	85.891	9.3000e-004	8.4200e-003	7.0700e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1048	10.1048	1.9000e-004	1.9000e-004	10.1649
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
Regional Shopping Center	27.6712	3.0000e-004	2.7100e-003	2.2800e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.2554	3.2554	6.0000e-005	6.0000e-005	3.2748
Single Family Housing	2898.63	0.0313	0.2671	0.1137	1.7100e-003		0.0216	0.0216		0.0216	0.0216		341.0157	341.0157	6.5400e-003	6.2500e-003	343.0422
Total		**0.0541**	**0.4629**	**0.2016**	**2.9600e-003**		**0.0374**	**0.0374**		**0.0374**	**0.0374**		**590.1076**	**590.1076**	**0.0113**	**0.0108**	**593.6144**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.00372	0.0216	0.1847	0.0786	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.7317	235.7317	4.5200e-003	4.3200e-003	237.1325
General Office Building	0.085891	9.3000e-004	8.4200e-003	7.0700e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1048	10.1048	1.9000e-004	1.9000e-004	10.1649
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
Regional Shopping Center	0.0276712	3.0000e-004	2.7100e-003	2.2800e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.2554	3.2554	6.0000e-005	6.0000e-005	3.2748
Single Family Housing	2.89863	0.0313	0.2671	0.1137	1.7100e-003		0.0216	0.0216		0.0216	0.0216		341.0157	341.0157	6.5400e-003	6.2500e-003	343.0422
Total		**0.0541**	**0.4629**	**0.2016**	**2.9600e-003**		**0.0374**	**0.0374**		**0.0374**	**0.0374**		**590.1076**	**590.1076**	**0.0113**	**0.0108**	**593.6144**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4160	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479	0.0000	15.6139	15.6139	0.0151	0.0000	15.9911
Unmitigated	3.5902	1.5806	9.3094	9.9100e-003		0.1676	0.1676		0.1676	0.1676	0.0000	1,905.6139	1,905.6139	0.0513	0.0347	1,917.2224

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	0.2490					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9054					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1733	1.4805	0.6300	9.4500e-003		0.1197	0.1197		0.1197	0.1197	0.0000	1,890.0000	1,890.0000	0.0362	0.0347	1,901.2313
Landscaping	0.2626	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479		15.6139	15.6139	0.0151		15.9911
Total	**3.5902**	**1.5806**	**9.3094**	**9.9100e-003**		**0.1676**	**0.1676**		**0.1676**	**0.1676**	**0.0000**	**1,905.6139**	**1,905.6139**	**0.0513**	**0.0347**	**1,917.2224**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2480					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9054					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2626	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479		15.6139	15.6139	0.0151		15.9911
Total	**3.4160**	**0.1001**	**8.6794**	**4.6000e-004**		**0.0479**	**0.0479**		**0.0479**	**0.0479**	**0.0000**	**15.6139**	**15.6139**	**0.0151**	**0.0000**	**15.9911**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Gardner Rosecrans Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.43	1000sqft	0.00	3,430.00	0
Parking Lot	64.00	Space	0.58	25,600.00	0
Apartments Mid Rise	64.00	Dwelling Unit	3.00	64,000.00	183
Single Family Housing	41.00	Dwelling Unit	1.30	73,800.00	117
Regional Shopping Center	5.05	1000sqft	0.54	5,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	510.43	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Gardner Rosecrans Project - Los Angeles-South Coast County, Winter

Project Characteristics - Adjusted per the SCE 2018 Corporate Responsibility and Sustainability Report. The report provides intensity factor of CO2e, the CO2 intensity factor is calculated as 513-25*0.029-298*0.00617=510.43 to avoid double counting.

Land Use - 41 single family, (50 3-story townhomes + 14 3-story live/work units) = 64, live/work workspace = 3,430 sf, retail = 5,050 sf
Density 21.3 DU/AC - site plan,
274 parking spaces / 210 garage and 64 parking lot1.59+

Construction Phase - used start and end construction dates and proportionally extended default schedule

Demolition - Construction Data Needs 175,000 sq ft of demo

Grading - Construction Data Needs Import 3615 CY

Architectural Coating - Architectural Coating - Rule 1113

Trips and VMT -

Vehicle Trips - 918 daily Trips with internal capture- from TIA, 918/64=14.34375

Woodstoves - no wood burning stoves

Energy Use -

Area Coating - low VOC

Operational Off-Road Equipment -

Construction Off-road Equipment Mitigation - Rule 403

Waste Mitigation -

Area Mitigation - use low VOC

Water Mitigation -

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
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50

Gardner Rosecrans Project - Los Angeles-South Coast County, Winter

tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	230.00	480.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	10.00	21.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.20	0.00
tblFireplaces	NumberWood	2.05	0.00
tblGrading	MaterialImported	0.00	3,615.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	1.68	3.00
tblLandUse	LotAcreage	13.31	1.30
tblLandUse	LotAcreage	0.12	0.54
tblProjectCharacteristics	CO2IntensityFactor	702.44	510.43
tblVehicleTrips	ST_TR	6.39	14.34
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	5.86	14.34
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	6.65	14.34
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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	4.1685	42.4826	23.6694	0.0556	18.2675	2.1991	20.4666	9.9840	2.0232	12.0072	0.0000	5,546.7713	5,546.7713	1.1981	0.0000	5,576.2811
2021	2.3080	19.3206	19.7776	0.0391	0.9360	0.9688	1.9048	0.2507	0.9108	1.1615	0.0000	3,801.3171	3,801.3171	0.6687	0.0000	3,818.0347
2022	22.3477	17.3990	19.3251	0.0388	0.9360	0.8185	1.7545	0.2507	0.7700	1.0207	0.0000	3,770.3645	3,770.3645	0.7183	0.0000	3,786.8978
Maximum	**22.3477**	**42.4826**	**23.6694**	**0.0556**	**18.2675**	**2.1991**	**20.4666**	**9.9840**	**2.0232**	**12.0072**	**0.0000**	**5,546.7713**	**5,546.7713**	**1.1981**	**0.0000**	**5,576.2811**

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	4.1685	42.4826	23.6694	0.0556	8.3153	2.1991	10.5144	4.5183	2.0232	6.5415	0.0000	5,546.7713	5,546.7713	1.1981	0.0000	5,576.2811
2021	2.3080	19.3206	19.7776	0.0391	0.8643	0.9688	1.8331	0.2331	0.9108	1.1439	0.0000	3,801.3171	3,801.3171	0.6687	0.0000	3,818.0347
2022	22.3477	17.3990	19.3251	0.0388	0.8643	0.8185	1.6828	0.2331	0.7700	1.0031	0.0000	3,770.3645	3,770.3645	0.7183	0.0000	3,786.8978
Maximum	**22.3477**	**42.4826**	**23.6694**	**0.0556**	**8.3153**	**2.1991**	**10.5144**	**4.5183**	**2.0232**	**6.5415**	**0.0000**	**5,546.7713**	**5,546.7713**	**1.1981**	**0.0000**	**5,576.2811**

Gardner Rosecrans Project - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.13	0.00	41.85	52.46	0.00	38.77	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.5902	1.5806	9.3094	9.9100e-003		0.1676	0.1676		0.1676	0.1676	0.0000	1,905.6139	1,905.6139	0.0513	0.0347	1,917.2224
Energy	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144
Mobile	1.6066	8.1200	21.3599	0.0780	6.6705	0.0664	6.7370	1.7852	0.0620	1.8471		7,945.9850	7,945.9850	0.4159		7,956.3819
Total	**5.2510**	**10.1635**	**30.8708**	**0.0909**	**6.6705**	**0.2714**	**6.9420**	**1.7852**	**0.2670**	**2.0521**	**0.0000**	**10,441.7065**	**10,441.7065**	**0.4785**	**0.0455**	**10,467.2187**

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	3.4160	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479	0.0000	15.6139	15.6139	0.0151	0.0000	15.9911
Energy	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144
Mobile	1.6066	8.1200	21.3599	0.0780	6.6705	0.0664	6.7370	1.7852	0.0620	1.8471		7,945.9850	7,945.9850	0.4159		7,956.3819
Total	**5.0767**	**8.6830**	**30.2408**	**0.0814**	**6.6705**	**0.1517**	**6.8223**	**1.7852**	**0.1473**	**1.9324**	**0.0000**	**8,551.7065**	**8,551.7065**	**0.4423**	**0.0108**	**8,565.9874**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.32**	**14.57**	**2.04**	**10.40**	**0.00**	**44.10**	**1.72**	**0.00**	**44.83**	**5.83**	**0.00**	**18.10**	**18.10**	**7.57**	**76.20**	**18.16**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	4/27/2020	5	41	
2	Site Preparation	Site Preparation	4/28/2020	5/26/2020	5	21	
3	Grading	Grading	5/27/2020	7/22/2020	5	41	
4	Building Construction	Building Construction	7/23/2020	5/25/2022	5	480	
5	Paving	Paving	5/26/2022	7/21/2022	5	41	
6	Architectural Coating	Architectural Coating	7/22/2022	9/16/2022	5	41	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20.5

Acres of Paving: 0.58

Residential Indoor: 279,045; Residential Outdoor: 93,015; Non-Residential Indoor: 12,720; Non-Residential Outdoor: 4,240; Striped Parking Area: 1,536 (Architectural Coating – sqft)

OffRoad Equipment

Gardner Rosecrans Project - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	796.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	452.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	74.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2015	0.0000	4.2015	0.6362	0.0000	0.6362			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**4.2015**	**1.6587**	**5.8602**	**0.6362**	**1.5419**	**2.1780**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1737	5.6548	1.3147	0.0151	0.3395	0.0181	0.3576	0.0931	0.0173	0.1104		1,632.9534	1,632.9534	0.1172		1,635.8836
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.2504**	**5.7091**	**1.9162**	**0.0167**	**0.5071**	**0.0195**	**0.5266**	**0.1375**	**0.0186**	**0.1561**		**1,799.0664**	**1,799.0664**	**0.1225**		**1,802.1275**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.8907	0.0000	1.8907	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**1.8907**	**1.6587**	**3.5494**	**0.2863**	**1.5419**	**1.8281**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1737	5.6548	1.3147	0.0151	0.3164	0.0181	0.3344	0.0874	0.0173	0.1047		1,632.9534	1,632.9534	0.1172		1,635.8836
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1546	1.4000e-003	0.1560	0.0413	1.2900e-003	0.0425		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.2504**	**5.7091**	**1.9162**	**0.0167**	**0.4709**	**0.0195**	**0.4904**	**0.1286**	**0.0186**	**0.1472**		**1,799.0664**	**1,799.0664**	**0.1225**		**1,802.1275**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	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**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0920**	**0.0652**	**0.7218**	**2.0000e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**199.3357**	**199.3357**	**6.2800e-003**		**199.4927**

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**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.1855	1.6800e-003	0.1871	0.0495	1.5500e-003	0.0510		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0920**	**0.0652**	**0.7218**	**2.0000e-003**	**0.1855**	**1.6800e-003**	**0.1871**	**0.0495**	**1.5500e-003**	**0.0510**		**199.3357**	**199.3357**	**6.2800e-003**		**199.4927**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5623	0.0000	6.5623	3.3690	0.0000	3.3690			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**	**6.5623**	**1.2734**	**7.8357**	**3.3690**	**1.1716**	**4.5405**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0986	3.2110	0.7465	8.5600e-003	0.1928	0.0103	0.2030	0.0528	9.8300e-003	0.0627		927.2549	927.2549	0.0666		928.9188
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.1753**	**3.2654**	**1.3480**	**0.0102**	**0.3604**	**0.0117**	**0.3721**	**0.0973**	**0.0111**	**0.1084**		**1,093.3680**	**1,093.3680**	**0.0718**		**1,095.1628**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9530	0.0000	2.9530	1.5161	0.0000	1.5161			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**	**2.9530**	**1.2734**	**4.2265**	**1.5161**	**1.1716**	**2.6876**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0986	3.2110	0.7465	8.5600e-003	0.1796	0.0103	0.1899	0.0496	9.8300e-003	0.0595		927.2549	927.2549	0.0666		928.9188
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0544	0.6015	1.6700e-003	0.1546	1.4000e-003	0.1560	0.0413	1.2900e-003	0.0425		166.1131	166.1131	5.2400e-003		166.2440
Total	**0.1753**	**3.2654**	**1.3480**	**0.0102**	**0.3342**	**0.0117**	**0.3459**	**0.0909**	**0.0111**	**0.1020**		**1,093.3680**	**1,093.3680**	**0.0718**		**1,095.1628**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
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**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0632	1.8080	0.5226	4.2900e-003	0.1088	8.6500e-003	0.1175	0.0313	8.2700e-003	0.0396		458.0634	458.0634	0.0306		458.8292
Worker	0.3782	0.2682	2.9675	8.2300e-003	0.8272	6.9100e-003	0.8341	0.2194	6.3700e-003	0.2257		819.4911	819.4911	0.0258		820.1368
Total	**0.4414**	**2.0762**	**3.4900**	**0.0125**	**0.9360**	**0.0156**	**0.9515**	**0.2507**	**0.0146**	**0.2653**		**1,277.5545**	**1,277.5545**	**0.0565**		**1,278.9660**

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**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0632	1.8080	0.5226	4.2900e-003	0.1019	8.6500e-003	0.1105	0.0296	8.2700e-003	0.0379		458.0634	458.0634	0.0306		458.8292
Worker	0.3782	0.2682	2.9675	8.2300e-003	0.7624	6.9100e-003	0.7693	0.2035	6.3700e-003	0.2099		819.4911	819.4911	0.0258		820.1368
Total	**0.4414**	**2.0762**	**3.4900**	**0.0125**	**0.8643**	**0.0156**	**0.8798**	**0.2331**	**0.0146**	**0.2477**		**1,277.5545**	**1,277.5545**	**0.0565**		**1,278.9660**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
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**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1088	3.4800e-003	0.1123	0.0313	3.3300e-003	0.0347		454.4874	454.4874	0.0293		455.2209
Worker	0.3529	0.2414	2.7251	7.9600e-003	0.8272	6.6800e-003	0.8338	0.2194	6.1600e-003	0.2255		793.4658	793.4658	0.0234		794.0495
Total	**0.4071**	**1.8885**	**3.2024**	**0.0122**	**0.9360**	**0.0102**	**0.9462**	**0.2507**	**9.4900e-003**	**0.2602**		**1,247.9532**	**1,247.9532**	**0.0527**		**1,249.2704**

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**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0543	1.6471	0.4773	4.2500e-003	0.1019	3.4800e-003	0.1053	0.0296	3.3300e-003	0.0330		454.4874	454.4874	0.0293		455.2209
Worker	0.3529	0.2414	2.7251	7.9600e-003	0.7624	6.6800e-003	0.7691	0.2035	6.1600e-003	0.2096		793.4658	793.4658	0.0234		794.0495
Total	**0.4071**	**1.8885**	**3.2024**	**0.0122**	**0.8643**	**0.0102**	**0.8745**	**0.2331**	**9.4900e-003**	**0.2426**		**1,247.9532**	**1,247.9532**	**0.0527**		**1,249.2704**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1088	3.0500e-003	0.1119	0.0313	2.9100e-003	0.0343		450.4495	450.4495	0.0283		451.1572
Worker	0.3314	0.2180	2.5099	7.6800e-003	0.8272	6.4700e-003	0.8336	0.2194	5.9600e-003	0.2253		765.5814	765.5814	0.0211		766.1084
Total	**0.3823**	**1.7833**	**2.9617**	**0.0119**	**0.9360**	**9.5200e-003**	**0.9455**	**0.2507**	**8.8700e-003**	**0.2596**		**1,216.0309**	**1,216.0309**	**0.0494**		**1,217.2656**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0509	1.5654	0.4518	4.2100e-003	0.1019	3.0500e-003	0.1049	0.0296	2.9100e-003	0.0325		450.4495	450.4495	0.0283		451.1572
Worker	0.3314	0.2180	2.5099	7.6800e-003	0.7624	6.4700e-003	0.7689	0.2035	5.9600e-003	0.2094		765.5814	765.5814	0.0211		766.1084
Total	**0.3823**	**1.7833**	**2.9617**	**0.0119**	**0.8643**	**9.5200e-003**	**0.8738**	**0.2331**	**8.8700e-003**	**0.2420**		**1,216.0309**	**1,216.0309**	**0.0494**		**1,217.2656**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1399**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1399**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1546	1.3100e-003	0.1559	0.0413	1.2100e-003	0.0425		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1546**	**1.3100e-003**	**0.1559**	**0.0413**	**1.2100e-003**	**0.0425**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.0759					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**22.2805**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

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	22.0759					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**22.2805**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1546	1.3100e-003	0.1559	0.0413	1.2100e-003	0.0425		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1546**	**1.3100e-003**	**0.1559**	**0.0413**	**1.2100e-003**	**0.0425**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6066	8.1200	21.3599	0.0780	6.6705	0.0664	6.7370	1.7852	0.0620	1.8471		7,945.9850	7,945.9850	0.4159		7,956.3819
Unmitigated	1.6066	8.1200	21.3599	0.0780	6.6705	0.0664	6.7370	1.7852	0.0620	1.8471		7,945.9850	7,945.9850	0.4159		7,956.3819

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	918.00	918.00	918.00	3,136,945	3,136,945
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	918.00	918.00	918.00	3,136,945	3,136,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
General Office Building	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Parking Lot	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Regional Shopping Center	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Single Family Housing	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

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	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144
NaturalGas Unmitigated	0.0541	0.4629	0.2016	2.9500e-003		0.0374	0.0374		0.0374	0.0374		590.1076	590.1076	0.0113	0.0108	593.6144

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2003.72	0.0216	0.1847	0.0786	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.7317	235.7317	4.5200e-003	4.3200e-003	237.1325
General Office Building	85.891	9.3000e-004	8.4200e-003	7.0700e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1048	10.1048	1.9000e-004	1.9000e-004	10.1649
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
Regional Shopping Center	27.6712	3.0000e-004	2.7100e-003	2.2800e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.2554	3.2554	6.0000e-005	6.0000e-005	3.2748
Single Family Housing	2898.63	0.0313	0.2671	0.1137	1.7100e-003		0.0216	0.0216		0.0216	0.0216		341.0157	341.0157	6.5400e-003	6.2500e-003	343.0422
Total		**0.0541**	**0.4629**	**0.2016**	**2.9600e-003**		**0.0374**	**0.0374**		**0.0374**	**0.0374**		**590.1076**	**590.1076**	**0.0113**	**0.0108**	**593.6144**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.00372	0.0216	0.1847	0.0786	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.7317	235.7317	4.5200e-003	4.3200e-003	237.1325
General Office Building	0.085891	9.3000e-004	8.4200e-003	7.0700e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.1048	10.1048	1.9000e-004	1.9000e-004	10.1649
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
Regional Shopping Center	0.0276712	3.0000e-004	2.7100e-003	2.2800e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.2554	3.2554	6.0000e-005	6.0000e-005	3.2748
Single Family Housing	2.89863	0.0313	0.2671	0.1137	1.7100e-003		0.0216	0.0216		0.0216	0.0216		341.0157	341.0157	6.5400e-003	6.2500e-003	343.0422
Total		**0.0541**	**0.4629**	**0.2016**	**2.9600e-003**		**0.0374**	**0.0374**		**0.0374**	**0.0374**		**590.1076**	**590.1076**	**0.0113**	**0.0108**	**593.6144**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4160	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479	0.0000	15.6139	15.6139	0.0151	0.0000	15.9911
Unmitigated	3.5902	1.5806	9.3094	9.9100e-003		0.1676	0.1676		0.1676	0.1676	0.0000	1,905.6139	1,905.6139	0.0513	0.0347	1,917.2224

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	0.2490					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9054					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1733	1.4805	0.6300	9.4500e-003		0.1197	0.1197		0.1197	0.1197	0.0000	1,890.0000	1,890.0000	0.0362	0.0347	1,901.2313
Landscaping	0.2626	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479		15.6139	15.6139	0.0151		15.9911
Total	**3.5902**	**1.5806**	**9.3094**	**9.9100e-003**		**0.1676**	**0.1676**		**0.1676**	**0.1676**	**0.0000**	**1,905.6139**	**1,905.6139**	**0.0513**	**0.0347**	**1,917.2224**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2480					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9054					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2626	0.1001	8.6794	4.6000e-004		0.0479	0.0479		0.0479	0.0479		15.6139	15.6139	0.0151		15.9911
Total	**3.4160**	**0.1001**	**8.6794**	**4.6000e-004**		**0.0479**	**0.0479**		**0.0479**	**0.0479**	**0.0000**	**15.6139**	**15.6139**	**0.0151**	**0.0000**	**15.9911**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Gardner Rosecrans Project - Existing (Opperations Only)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16.90	1000sqft	0.39	16,900.00	0
Parking Lot	2.88	Acre	2.88	125,452.80	0
Automobile Care Center	25.50	1000sqft	0.59	25,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	510.43	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per the SCE 2018 Corporate Responsibility and Sustainability Report. The report provides intensity factor of CO2e, the CO2 intensity factor is calculated as 513-25*0.029-298*0.00617=510.43 to avoid double counting.

Land Use - Total Site = 5.46 ac, 3.86 ca developed and 1.6 ac undeveloped

Construction Phase - Model Operations only

Vehicle Trips - 212 ADT based on Traffic Memo, 212/42.4(total building area) = 5

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	510.43
tblVehicleTrips	ST_TR	23.72	5.00
tblVehicleTrips	ST_TR	2.46	5.00
tblVehicleTrips	SU_TR	11.88	5.00
tblVehicleTrips	SU_TR	1.05	5.00
tblVehicleTrips	WD_TR	23.72	5.00
tblVehicleTrips	WD_TR	11.03	5.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2905	2.5836	2.3445	4.7800e-003	0.1035	0.1308	0.2343	0.0279	0.1230	0.1509	0.0000	423.8652	423.8652	0.0725	0.0000	425.6779
Maximum	**0.2905**	**2.5836**	**2.3445**	**4.7800e-003**	**0.1035**	**0.1308**	**0.2343**	**0.0279**	**0.1230**	**0.1509**	**0.0000**	**423.8652**	**423.8652**	**0.0725**	**0.0000**	**425.6779**

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	0.2905	2.5836	2.3445	4.7800e-003	0.1035	0.1308	0.2343	0.0279	0.1230	0.1509	0.0000	423.8649	423.8649	0.0725	0.0000	425.6776
Maximum	**0.2905**	**2.5836**	**2.3445**	**4.7800e-003**	**0.1035**	**0.1308**	**0.2343**	**0.0279**	**0.1230**	**0.1509**	**0.0000**	**423.8649**	**423.8649**	**0.0725**	**0.0000**	**425.6776**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-12-2019	3-11-2020	0.3923	0.3923
2	3-12-2020	6-11-2020	0.8187	0.8187
3	6-12-2020	9-11-2020	0.8183	0.8183
4	9-12-2020	9-30-2020	0.1690	0.1690
		Highest	0.8187	0.8187

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	0.1828	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Energy	3.7100e-003	0.0337	0.0283	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	151.4777	151.4777	7.2300e-003	2.0200e-003	152.2608
Mobile	0.0688	0.3200	0.7984	2.2600e-003	0.1682	2.6700e-003	0.1708	0.0451	2.5100e-003	0.0476	0.0000	208.4816	208.4816	0.0130	0.0000	208.8065
Waste						0.0000	0.0000		0.0000	0.0000	22.9644	0.0000	22.9644	1.3572	0.0000	56.8933
Water						0.0000	0.0000		0.0000	0.0000	1.7141	24.8056	26.5196	0.1775	4.4500e-003	32.2817
Total	**0.2553**	**0.3537**	**0.8272**	**2.4600e-003**	**0.1682**	**5.2300e-003**	**0.1734**	**0.0451**	**5.0700e-003**	**0.0502**	**24.6784**	**384.7659**	**409.4443**	**1.5549**	**6.4700e-003**	**450.2435**

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	0.1828	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Energy	3.7100e-003	0.0337	0.0283	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	151.4777	151.4777	7.2300e-003	2.0200e-003	152.2608
Mobile	0.0688	0.3200	0.7984	2.2600e-003	0.1682	2.6700e-003	0.1708	0.0451	2.5100e-003	0.0476	0.0000	208.4816	208.4816	0.0130	0.0000	208.8065
Waste						0.0000	0.0000		0.0000	0.0000	22.9644	0.0000	22.9644	1.3572	0.0000	56.8933
Water						0.0000	0.0000		0.0000	0.0000	1.7141	24.8056	26.5196	0.1775	4.4500e-003	32.2817
Total	**0.2553**	**0.3537**	**0.8272**	**2.4600e-003**	**0.1682**	**5.2300e-003**	**0.1734**	**0.0451**	**5.0700e-003**	**0.0502**	**24.6784**	**384.7659**	**409.4443**	**1.5549**	**6.4700e-003**	**450.2435**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/28/2020	12/14/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.88

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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

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
Building Construction	9	66.00	28.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 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	0.2438	2.2064	1.9376	3.1000e-003		0.1285	0.1285		0.1208	0.1208	0.0000	266.3515	266.3515	0.0650	0.0000	267.9760
Total	**0.2438**	**2.2064**	**1.9376**	**3.1000e-003**		**0.1285**	**0.1285**		**0.1208**	**0.1208**	**0.0000**	**266.3515**	**266.3515**	**0.0650**	**0.0000**	**267.9760**

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	0.0117	0.3489	0.0945	8.3000e-004	0.0203	1.6200e-003	0.0219	5.8500e-003	1.5500e-003	7.4100e-003	0.0000	79.9932	79.9932	5.0800e-003	0.0000	80.1203
Worker	0.0350	0.0283	0.3124	8.6000e-004	0.0832	7.1000e-004	0.0839	0.0221	6.5000e-004	0.0227	0.0000	77.5205	77.5205	2.4400e-003	0.0000	77.5816
Total	**0.0467**	**0.3772**	**0.4069**	**1.6900e-003**	**0.1035**	**2.3300e-003**	**0.1058**	**0.0279**	**2.2000e-003**	**0.0302**	**0.0000**	**157.5138**	**157.5138**	**7.5200e-003**	**0.0000**	**157.7019**

3.2 Building Construction - 2020

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	0.2438	2.2064	1.9376	3.1000e-003		0.1285	0.1285		0.1208	0.1208	0.0000	266.3512	266.3512	0.0650	0.0000	267.9757
Total	**0.2438**	**2.2064**	**1.9376**	**3.1000e-003**		**0.1285**	**0.1285**		**0.1208**	**0.1208**	**0.0000**	**266.3512**	**266.3512**	**0.0650**	**0.0000**	**267.9757**

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	0.0117	0.3489	0.0945	8.3000e-004	0.0203	1.6200e-003	0.0219	5.8500e-003	1.5500e-003	7.4100e-003	0.0000	79.9932	79.9932	5.0800e-003	0.0000	80.1203
Worker	0.0350	0.0283	0.3124	8.6000e-004	0.0832	7.1000e-004	0.0839	0.0221	6.5000e-004	0.0227	0.0000	77.5205	77.5205	2.4400e-003	0.0000	77.5816
Total	**0.0467**	**0.3772**	**0.4069**	**1.6900e-003**	**0.1035**	**2.3300e-003**	**0.1058**	**0.0279**	**2.2000e-003**	**0.0302**	**0.0000**	**157.5138**	**157.5138**	**7.5200e-003**	**0.0000**	**157.7019**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0688	0.3200	0.7984	2.2600e-003	0.1682	2.6700e-003	0.1708	0.0451	2.5100e-003	0.0476	0.0000	208.4816	208.4816	0.0130	0.0000	208.8065
Unmitigated	0.0688	0.3200	0.7984	2.2600e-003	0.1682	2.6700e-003	0.1708	0.0451	2.5100e-003	0.0476	0.0000	208.4816	208.4816	0.0130	0.0000	208.8065

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	127.50	127.50	127.50	170,793	170,793
General Office Building	84.50	84.50	84.50	272,213	272,213
Parking Lot	0.00	0.00	0.00		
Total	212.00	212.00	212.00	443,006	443,006

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
General Office Building	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
Parking Lot	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	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	114.7945	114.7945	6.5200e-003	1.3500e-003	115.3597
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	114.7945	114.7945	6.5200e-003	1.3500e-003	115.3597
NaturalGas Mitigated	3.7100e-003	0.0337	0.0283	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6831	36.6831	7.0000e-004	6.7000e-004	36.9011
NaturalGas Unmitigated	3.7100e-003	0.0337	0.0283	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6831	36.6831	7.0000e-004	6.7000e-004	36.9011

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					
Automobile Care Center	532950	2.8700e-003	0.0261	0.0220	1.6000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	28.4402	28.4402	5.5000e-004	5.2000e-004	28.6093
General Office Building	154466	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2429	8.2429	1.6000e-004	1.5000e-004	8.2919
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
Total		**3.7000e-003**	**0.0337**	**0.0283**	**2.1000e-004**		**2.5700e-003**	**2.5700e-003**		**2.5700e-003**	**2.5700e-003**	**0.0000**	**36.6831**	**36.6831**	**7.1000e-004**	**6.7000e-004**	**36.9011**

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					
Automobile Care Center	532950	2.8700e-003	0.0261	0.0220	1.6000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	28.4402	28.4402	5.5000e-004	5.2000e-004	28.6093
General Office Building	154466	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2429	8.2429	1.6000e-004	1.5000e-004	8.2919
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
Total		**3.7000e-003**	**0.0337**	**0.0283**	**2.1000e-004**		**2.5700e-003**	**2.5700e-003**		**2.5700e-003**	**2.5700e-003**	**0.0000**	**36.6831**	**36.6831**	**7.1000e-004**	**6.7000e-004**	**36.9011**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	215475	49.8883	2.8300e-003	5.9000e-004	50.1339
General Office Building	236431	54.7402	3.1100e-003	6.4000e-004	55.0097
Parking Lot	43908.5	10.1660	5.8000e-004	1.2000e-004	10.2161
Total		**114.7945**	**6.5200e-003**	**1.3500e-003**	**115.3597**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	215475	49.8883	2.8300e-003	5.9000e-004	50.1339
General Office Building	236431	54.7402	3.1100e-003	6.4000e-004	55.0097
Parking Lot	43908.5	10.1660	5.8000e-004	1.2000e-004	10.2161
Total		**114.7945**	**6.5200e-003**	**1.3500e-003**	**115.3597**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1828	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Unmitigated	0.1828	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003

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	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Total	**0.1828**	**1.0000e-005**	**5.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1200e-003**	**1.1200e-003**	**0.0000**	**0.0000**	**1.2000e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Total	**0.1828**	**1.0000e-005**	**5.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1200e-003**	**1.1200e-003**	**0.0000**	**0.0000**	**1.2000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.5196	0.1775	4.4500e-003	32.2817
Unmitigated	26.5196	0.1775	4.4500e-003	32.2817

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	2.39907 / 1.4704	11.7759	0.0788	1.9800e-003	14.3345
General Office Building	3.0037 / 1.84098	14.7437	0.0987	2.4700e-003	17.9472
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.5196**	**0.1775**	**4.4500e-003**	**32.2817**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	2.39907 / 1.4704	11.7759	0.0788	1.9800e-003	14.3345
General Office Building	3.0037 / 1.84098	14.7437	0.0987	2.4700e-003	17.9472
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**26.5196**	**0.1775**	**4.4500e-003**	**32.2817**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22.9644	1.3572	0.0000	56.8933
Unmitigated	22.9644	1.3572	0.0000	56.8933

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	97.41	19.7734	1.1686	0.0000	48.9876
General Office Building	15.72	3.1910	0.1886	0.0000	7.9056
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.9644**	**1.3572**	**0.0000**	**56.8933**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	97.41	19.7734	1.1686	0.0000	48.9876
General Office Building	15.72	3.1910	0.1886	0.0000	7.9056
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.9644**	**1.3572**	**0.0000**	**56.8933**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Gardner Rosecrans Project - Existing (Opperations Only)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16.90	1000sqft	0.39	16,900.00	0
Parking Lot	2.88	Acre	2.88	125,452.80	0
Automobile Care Center	25.50	1000sqft	0.59	25,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	510.43	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per the SCE 2018 Corporate Responsibility and Sustainability Report. The report provides intensity factor of CO2e, the CO2 intensity factor is calculated as 513-25*0.029-298*0.00617=510.43 to avoid double counting.

Land Use - Total Site = 5.46 ac, 3.86 ca developed and 1.6 ac undeveloped

Construction Phase - Model Operations only

Vehicle Trips - 212 ADT based on Traffic Memo, 212/42.4(total building area) = 5

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	510.43
tblVehicleTrips	ST_TR	23.72	5.00
tblVehicleTrips	ST_TR	2.46	5.00
tblVehicleTrips	SU_TR	11.88	5.00
tblVehicleTrips	SU_TR	1.05	5.00
tblVehicleTrips	WD_TR	23.72	5.00
tblVehicleTrips	WD_TR	11.03	5.00

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	2.5232	22.3806	20.5187	0.0420	0.9170	1.1372	2.0542	0.2473	1.0694	1.3167	0.0000	4,104.9667	4,104.9667	0.6947	0.0000	4,122.3333
Maximum	**2.5232**	**22.3806**	**20.5187**	**0.0420**	**0.9170**	**1.1372**	**2.0542**	**0.2473**	**1.0694**	**1.3167**	**0.0000**	**4,104.9667**	**4,104.9667**	**0.6947**	**0.0000**	**4,122.3333**

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	2.5232	22.3806	20.5187	0.0420	0.9170	1.1372	2.0542	0.2473	1.0694	1.3167	0.0000	4,104.9667	4,104.9667	0.6947	0.0000	4,122.3333
Maximum	**2.5232**	**22.3806**	**20.5187**	**0.0420**	**0.9170**	**1.1372**	**2.0542**	**0.2473**	**1.0694**	**1.3167**	**0.0000**	**4,104.9667**	**4,104.9667**	**0.6947**	**0.0000**	**4,122.3333**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Energy	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851
Mobile	0.3997	1.6913	4.4735	0.0129	0.9421	0.0147	0.9568	0.2522	0.0138	0.2659		1,309.3393	1,309.3393	0.0789		1,311.3116
Total	**1.4216**	**1.8760**	**4.6332**	**0.0140**	**0.9421**	**0.0287**	**0.9708**	**0.2522**	**0.0278**	**0.2800**		**1,530.9176**	**1,530.9176**	**0.0832**	**4.0600e-003**	**1,534.2073**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Energy	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851
Mobile	0.3997	1.6913	4.4735	0.0129	0.9421	0.0147	0.9568	0.2522	0.0138	0.2659		1,309.3393	1,309.3393	0.0789		1,311.3116
Total	**1.4216**	**1.8760**	**4.6332**	**0.0140**	**0.9421**	**0.0287**	**0.9708**	**0.2522**	**0.0278**	**0.2800**		**1,530.9176**	**1,530.9176**	**0.0832**	**4.0600e-003**	**1,534.2073**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/28/2020	12/14/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.88

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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

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
Building Construction	9	66.00	28.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 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**

3.2 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	0.0996	2.9784	0.7804	7.2600e-003	0.1793	0.0140	0.1933	0.0516	0.0134	0.0650		775.6692	775.6692	0.0473		776.8525
Worker	0.3037	0.2161	2.8898	7.7900e-003	0.7377	6.1700e-003	0.7439	0.1957	5.6800e-003	0.2013		776.2345	776.2345	0.0245		776.8463
Total	**0.4033**	**3.1945**	**3.6702**	**0.0151**	**0.9170**	**0.0202**	**0.9372**	**0.2473**	**0.0191**	**0.2664**		**1,551.9037**	**1,551.9037**	**0.0718**		**1,553.6988**

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**

3.2 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	0.0996	2.9784	0.7804	7.2600e-003	0.1793	0.0140	0.1933	0.0516	0.0134	0.0650		775.6692	775.6692	0.0473		776.8525
Worker	0.3037	0.2161	2.8898	7.7900e-003	0.7377	6.1700e-003	0.7439	0.1957	5.6800e-003	0.2013		776.2345	776.2345	0.0245		776.8463
Total	**0.4033**	**3.1945**	**3.6702**	**0.0151**	**0.9170**	**0.0202**	**0.9372**	**0.2473**	**0.0191**	**0.2664**		**1,551.9037**	**1,551.9037**	**0.0718**		**1,553.6988**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3997	1.6913	4.4735	0.0129	0.9421	0.0147	0.9568	0.2522	0.0138	0.2659		1,309.3393	1,309.3393	0.0789		1,311.3116
Unmitigated	0.3997	1.6913	4.4735	0.0129	0.9421	0.0147	0.9568	0.2522	0.0138	0.2659		1,309.3393	1,309.3393	0.0789		1,311.3116

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	127.50	127.50	127.50	170,793	170,793
General Office Building	84.50	84.50	84.50	272,213	272,213
Parking Lot	0.00	0.00	0.00		
Total	212.00	212.00	212.00	443,006	443,006

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
General Office Building	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
Parking Lot	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	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	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851
NaturalGas Unmitigated	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851

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					
Automobile Care Center	1460.14	0.0158	0.1432	0.1203	8.6000e-004		0.0109	0.0109		0.0109	0.0109		171.7808	171.7808	3.2900e-003	3.1500e-003	172.8016
General Office Building	423.195	4.5600e-003	0.0415	0.0349	2.5000e-004		3.1500e-003	3.1500e-003		3.1500e-003	3.1500e-003		49.7876	49.7876	9.5000e-004	9.1000e-004	50.0835
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0203**	**0.1846**	**0.1551**	**1.1100e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**		**221.5684**	**221.5684**	**4.2400e-003**	**4.0600e-003**	**222.8851**

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					
Automobile Care Center	1.46014	0.0158	0.1432	0.1203	8.6000e-004		0.0109	0.0109		0.0109	0.0109		171.7808	171.7808	3.2900e-003	3.1500e-003	172.8016
General Office Building	0.423195	4.5600e-003	0.0415	0.0349	2.5000e-004		3.1500e-003	3.1500e-003		3.1500e-003	3.1500e-003		49.7876	49.7876	9.5000e-004	9.1000e-004	50.0835
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0203**	**0.1846**	**0.1551**	**1.1100e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**		**221.5684**	**221.5684**	**4.2400e-003**	**4.0600e-003**	**222.8851**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Unmitigated	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106

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	0.1172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8840					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Total	**1.0016**	**4.0000e-005**	**4.6700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.9100e-003**	**9.9100e-003**	**3.0000e-005**		**0.0106**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8840					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Total	**1.0016**	**4.0000e-005**	**4.6700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.9100e-003**	**9.9100e-003**	**3.0000e-005**		**0.0106**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Gardner Rosecrans Project - Existing (Opperations Only)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16.90	1000sqft	0.39	16,900.00	0
Parking Lot	2.88	Acre	2.88	125,452.80	0
Automobile Care Center	25.50	1000sqft	0.59	25,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	510.43	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per the SCE 2018 Corporate Responsibility and Sustainability Report. The report provides intensity factor of CO2e, the CO2 intensity factor is calculated as 513-25*0.029-298*0.00617=510.43 to avoid double counting.

Land Use - Total Site = 5.46 ac, 3.86 ca developed and 1.6 ac undeveloped

Construction Phase - Model Operations only

Vehicle Trips - 212 ADT based on Traffic Memo, 212/42.4(total building area) = 5

Energy Use -

Gardner Rosecrans Project - Existing (Opperations Only) - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	510.43
tblVehicleTrips	ST_TR	23.72	5.00
tblVehicleTrips	ST_TR	2.46	5.00
tblVehicleTrips	SU_TR	11.88	5.00
tblVehicleTrips	SU_TR	1.05	5.00
tblVehicleTrips	WD_TR	23.72	5.00
tblVehicleTrips	WD_TR	11.03	5.00

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	2.5612	22.4031	20.3559	0.0413	0.9170	1.1375	2.0544	0.2473	1.0696	1.3169	0.0000	4,038.4179	4,038.4179	0.6964	0.0000	4,055.8265
Maximum	**2.5612**	**22.4031**	**20.3559**	**0.0413**	**0.9170**	**1.1375**	**2.0544**	**0.2473**	**1.0696**	**1.3169**	**0.0000**	**4,038.4179**	**4,038.4179**	**0.6964**	**0.0000**	**4,055.8265**

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	2.5612	22.4031	20.3559	0.0413	0.9170	1.1375	2.0544	0.2473	1.0696	1.3169	0.0000	4,038.4179	4,038.4179	0.6964	0.0000	4,055.8265
Maximum	**2.5612**	**22.4031**	**20.3559**	**0.0413**	**0.9170**	**1.1375**	**2.0544**	**0.2473**	**1.0696**	**1.3169**	**0.0000**	**4,038.4179**	**4,038.4179**	**0.6964**	**0.0000**	**4,055.8265**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Energy	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851
Mobile	0.3896	1.7261	4.3496	0.0123	0.9421	0.0148	0.9569	0.2522	0.0139	0.2661		1,243.8073	1,243.8073	0.0793		1,245.7888
Total	**1.4116**	**1.9108**	**4.5093**	**0.0134**	**0.9421**	**0.0288**	**0.9710**	**0.2522**	**0.0280**	**0.2801**		**1,465.3856**	**1,465.3856**	**0.0835**	**4.0600e-003**	**1,468.6845**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Energy	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851
Mobile	0.3896	1.7261	4.3496	0.0123	0.9421	0.0148	0.9569	0.2522	0.0139	0.2661		1,243.8073	1,243.8073	0.0793		1,245.7888
Total	**1.4116**	**1.9108**	**4.5093**	**0.0134**	**0.9421**	**0.0288**	**0.9710**	**0.2522**	**0.0280**	**0.2801**		**1,465.3856**	**1,465.3856**	**0.0835**	**4.0600e-003**	**1,468.6845**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/28/2020	12/14/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.88

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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

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
Building Construction	9	66.00	28.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 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**

3.2 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	0.1041	2.9778	0.8607	7.0700e-003	0.1793	0.0142	0.1935	0.0516	0.0136	0.0652		754.4574	754.4574	0.0505		755.7186
Worker	0.3373	0.2392	2.6467	7.3400e-003	0.7377	6.1700e-003	0.7439	0.1957	5.6800e-003	0.2013		730.8975	730.8975	0.0230		731.4734
Total	**0.4414**	**3.2170**	**3.5074**	**0.0144**	**0.9170**	**0.0204**	**0.9374**	**0.2473**	**0.0193**	**0.2666**		**1,485.3548**	**1,485.3548**	**0.0735**		**1,487.1920**

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**

3.2 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	0.1041	2.9778	0.8607	7.0700e-003	0.1793	0.0142	0.1935	0.0516	0.0136	0.0652		754.4574	754.4574	0.0505		755.7186
Worker	0.3373	0.2392	2.6467	7.3400e-003	0.7377	6.1700e-003	0.7439	0.1957	5.6800e-003	0.2013		730.8975	730.8975	0.0230		731.4734
Total	**0.4414**	**3.2170**	**3.5074**	**0.0144**	**0.9170**	**0.0204**	**0.9374**	**0.2473**	**0.0193**	**0.2666**		**1,485.3548**	**1,485.3548**	**0.0735**		**1,487.1920**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3896	1.7261	4.3496	0.0123	0.9421	0.0148	0.9569	0.2522	0.0139	0.2661		1,243.8073	1,243.8073	0.0793		1,245.7888
Unmitigated	0.3896	1.7261	4.3496	0.0123	0.9421	0.0148	0.9569	0.2522	0.0139	0.2661		1,243.8073	1,243.8073	0.0793		1,245.7888

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	127.50	127.50	127.50	170,793	170,793
General Office Building	84.50	84.50	84.50	272,213	272,213
Parking Lot	0.00	0.00	0.00		
Total	212.00	212.00	212.00	443,006	443,006

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
General Office Building	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	0.000925
Parking Lot	0.548007	0.045751	0.200309	0.124119	0.017133	0.006025	0.018861	0.028423	0.002391	0.002469	0.004915	0.000672	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	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851
NaturalGas Unmitigated	0.0203	0.1846	0.1551	1.1100e-003		0.0140	0.0140		0.0140	0.0140		221.5684	221.5684	4.2500e-003	4.0600e-003	222.8851

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					
Automobile Care Center	1460.14	0.0158	0.1432	0.1203	8.6000e-004		0.0109	0.0109		0.0109	0.0109		171.7808	171.7808	3.2900e-003	3.1500e-003	172.8016
General Office Building	423.195	4.5600e-003	0.0415	0.0349	2.5000e-004		3.1500e-003	3.1500e-003		3.1500e-003	3.1500e-003		49.7876	49.7876	9.5000e-004	9.1000e-004	50.0835
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0203**	**0.1846**	**0.1551**	**1.1100e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**		**221.5684**	**221.5684**	**4.2400e-003**	**4.0600e-003**	**222.8851**

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					
Automobile Care Center	1.46014	0.0158	0.1432	0.1203	8.6000e-004		0.0109	0.0109		0.0109	0.0109		171.7808	171.7808	3.2900e-003	3.1500e-003	172.8016
General Office Building	0.423195	4.5600e-003	0.0415	0.0349	2.5000e-004		3.1500e-003	3.1500e-003		3.1500e-003	3.1500e-003		49.7876	49.7876	9.5000e-004	9.1000e-004	50.0835
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0203**	**0.1846**	**0.1551**	**1.1100e-003**		**0.0140**	**0.0140**		**0.0140**	**0.0140**		**221.5684**	**221.5684**	**4.2400e-003**	**4.0600e-003**	**222.8851**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Unmitigated	1.0016	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106

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	0.1172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8840					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Total	**1.0016**	**4.0000e-005**	**4.6700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.9100e-003**	**9.9100e-003**	**3.0000e-005**		**0.0106**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8840					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	4.6700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.9100e-003	9.9100e-003	3.0000e-005		0.0106
Total	**1.0016**	**4.0000e-005**	**4.6700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.9100e-003**	**9.9100e-003**	**3.0000e-005**		**0.0106**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation