

Appendix

Appendix B Air Quality/GHG Data

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Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

SOUTH COAST AIR BASIN

The project site lies in the South Coast Air Basin (SoCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site with temperature data is the Anaheim, California Monitoring Station (ID No. 040192). The lowest average temperature is reported at 46.9°F in December, and the highest average temperature is 87.1°F in August (WRCC 2019).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from October through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall historically averages 14.09 inches per year in the project area (WRCC 2019).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

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

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (SCAQMD). However, SCAQMD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve

and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1, these pollutants include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Ozone (O ₃) ³	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m ³	150 µg/m ³	
Respirable Fine Particulate Matter (PM _{2.5}) ⁴	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m ³	

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m ³	
	Rolling 3-Month Average	*	0.15 µg/m ³	
Sulfates (SO ₄) ⁵	24 hours	25 µg/m ³	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

- California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than the one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards

- Title 24, Part 11, CCR: Green Building Standards Code

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, NO₂, PM₁₀, and PM_{2.5} are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and NO₂ are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005; USEPA 2019a). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2017b).

Nitrogen Oxides (NO_x) are a byproduct of fuel combustion and contribute to the formation of O₃, PM₁₀, and PM_{2.5}. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂). The principal form of NO₂ produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO₂ is only potentially irritating. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure (SCAQMD 2005; USEPA 2019a). The SoCAB is designated as an attainment area for NO₂ under the National AAQS California AAQS (CARB 2017b).

Ozone (O₃) is commonly referred to as “smog” and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O₃ is a secondary criteria air pollutant. O₃ concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O₃ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O₃ can trigger a variety of health problems, including chest pain, coughing, throat irritation,

and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O₃ also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O₃ also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O₃ harms sensitive vegetation during the growing season (SCAQMD 2005; USEPA 2019a). The SoCAB is designated as extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2017b).

Sulfur Dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO₂ (SCAQMD 2005; USEPA 2019a). When sulfur dioxide forms sulfates (SO₄) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO₂ is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. The SoCAB is designated as attainment under the California and National AAQS (CARB 2017b).

Suspended Particulate Matter (PM₁₀ and PM_{2.5}) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM₁₀, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM_{2.5}, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (SCAQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that PM_{2.5}, which penetrates deeply into the lungs, is more likely than PM₁₀ to contribute to health effects and at concentrations that extend well below those allowed by the current PM₁₀ standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms (SCAQMD 2005). There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (SCAQMD 2013). However, the EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects

such as visibility impairment,¹ environmental damage,² and aesthetic damage³ (SCAQMD 2005; USEPA 2019a). The SoCAB is a nonattainment area for PM_{2.5} under California and National AAQS and a nonattainment area for PM₁₀ under the California AAQS (CARB 2017b).⁴

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of ozone (O₃), SCAQMD has established a significance threshold for this pollutant (SCAQMD 2005).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAQMD 2005; USEPA 2019a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted stricter lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.⁵ As a result of these violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (SCAQMD 2012; CARB 2017b). Because emissions of lead are found only in projects that are permitted by SCAQMD, lead is not a pollutant of concern for the project.

¹ PM_{2.5} is the main cause of reduced visibility (haze) in parts of the United States.

² Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

³ Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

⁴ CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM₁₀ to attainment for PM₁₀ under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM₁₀ standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the PM₁₀ nonattainment area to attainment of the PM₁₀ National AAQS, effective on July 26, 2013.

⁵ Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012).

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered 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.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Multiple Airborne Toxics Exposure Study (MATES)

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and estimated the potential health risks from air toxics in the SoCAB. In 2008, SCAQMD conducted its third update to the MATES study (MATES III). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for 84 percent of the cancer risk (SCAQMD 2008b).

SCAQMD recently released the fourth update (MATES IV). The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources while 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, accounting for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basin-wide population-weighted risk decreased by approximately 57 percent compared to the analysis done for the MATES III time period (SCAQMD 2015a).

The Office of Environmental Health Hazard Assessment (OEHHA) updated the guidelines for estimating cancer risks on March 6, 2015. The new method utilizes higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on

breathing rates and length of residential exposures. When combined together, SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher using the proposed updated methods identified in MATES IV (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (SCAQMD 2015a).

Air Quality Management Planning

SCAQMD is the agency responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2016 AQMP

On March 3, 2017, SCAQMD adopted the 2016 AQMP as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031,
- 2012 National annual PM_{2.5} standard by 2025⁶,
- 2006 National 24-hour PM_{2.5} standard by 2019,
- 1997 National 8-hour ozone standard by 2023, and the
- 1979 National 1-hour ozone standard by year 2022.

It is projected that total NO_x emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (SCAQMD 2017), which requires reducing NO_x emissions in the SoCAB to 250 tpd. This is approximately 45 percent additional reductions above existing regulations for the 2023 ozone standard and 55 percent additional reductions above existing regulations to meet the 2031 ozone standard.

Reducing NO_x emissions would also reduce PM_{2.5} concentrations in the SoCAB. However, as the goal is to meet the 2012 federal annual PM_{2.5} standard no later than year 2025, SCAQMD is seeking to reclassify the SoCAB from “moderate” to “serious” nonattainment under this federal standard. A “moderate” nonattainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in the 2016 AQMP would be implemented in collaboration between CARB and the EPA (SCAQMD 2017).

LEAD STATE IMPLEMENTATION PLAN

In 2008 EPA designated the Los Angeles County portion of the SoCAB nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This

⁶ The 2016 AQMP requests a reclassification from moderate to serious non-attainment for the 2012 National PM_{2.5} standard.

designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard. The rest of the SoCAB, outside the Los Angeles County nonattainment area remains in attainment of the new standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified:** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment:** a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment:** a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- **Nonattainment/Transitional:** a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 2. The SoCAB is designated in attainment of the California AAQS for sulfates. The SoCAB is designated as nonattainment for lead (Los Angeles County only) under the National AAQS.

Table 2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM ₁₀	Serious Nonattainment	Attainment/Maintenance
PM _{2.5}	Nonattainment	Nonattainment ¹
CO	Attainment	Attainment
NO ₂	Attainment	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only) ²
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2017b.

¹ SCAQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under federal PM_{2.5} standard.

² In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the SCAQMD. The project site is located within Source Receptor Area (SRA) 17 – Central Orange County. The air quality monitoring station closest to the project site is the Anaheim – Pampas Lane Monitoring Station, which monitors O₃, NO_x, and PM_{2.5} and PM₁₀. The most current five years of data from these monitoring stations are included in Table 3, *Ambient Air Quality Monitoring Summary*. The data show regular violations of the state and federal O₃, state PM₁₀, and federal PM_{2.5} standards in the last five years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2014	2015	2016	2017	2018
Ozone (O₃)					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	2	1	2	0	1
State 8-hour ≥ 0.07 ppm (days exceed threshold)	6	1	4	4	1
Federal 8-Hour > 0.075 ppm (days exceed threshold)	4	1	0	2	0
Max. 1-Hour Conc. (ppm)	0.111	0.100	0.103	0.090	0.112
Max. 8-Hour Conc. (ppm)	0.081	0.080	0.075	0.076	0.071
Nitrogen Dioxide (NO₂)					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0758	0.0591	0.0643	0.081	0.0660
Coarse Particulates (PM₁₀)					
State 24-Hour > 50 µg/m ³ (days exceed threshold)	2	2	3	5	2
Federal 24-Hour > 150 µg/m ³ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m ³)	85.0	59.0	74.0	95.7	94.6
Fine Particulates (PM_{2.5})					
Federal 24-Hour > 35 µg/m ³ (days exceed threshold)	4	3	1	7	7
Max. 24-Hour Conc. (µg/m ³)	45.0	45.8	44.4	53.9	63.1

Source: CARB 2019d.

ppm: parts per million; parts per billion, µg/m³: micrograms per cubic meter

Notes: * Data not available.

Data obtained from the Anaheim – Pampas Lane Monitoring Station.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive

to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The nearest sensitive receptors to the proposed project site are the Pampas Lane Apartment Homes south of the project site.

Methodology

Projected construction-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only) use. The calculated emissions of the project are compared to thresholds of significance for individual projects using the SCAQMD's *CEQA Air Quality Analysis Guidance Handbook*.

Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website (SCAQMD 1993). CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed through an analysis of localized CO impacts and localized significance thresholds (LSTs).

REGIONAL SIGNIFICANCE THRESHOLDS

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 4 lists SCAQMD's regional significance thresholds that are applicable for all projects uniformly regardless of size or scope. There is growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, SCAQMD has not developed thresholds for them.

Table 4 SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO _x)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO _x)	150 lbs/day	150 lbs/day
Particulates (PM ₁₀)	150 lbs/day	150 lbs/day
Particulates (PM _{2.5})	55 lbs/day	55 lbs/day

Source: SCAQMD 2019.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk (PM_{2.5}, TACs)
- Aggravates respiratory disease (O₃, PM_{2.5})
- Increases bronchitis (O₃, PM_{2.5})
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O₃)
- Reduces resistance to infections and increases fatigue (O₃)
- Reduces lung growth in children (PM_{2.5})
- Contributes to heart disease and heart attacks (PM_{2.5})
- Contributes to premature death (O₃, PM_{2.5})
- Linked to lower birth weight in newborns (PM_{2.5}) (SCAQMD 2015b)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of PM_{2.5} is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (SCAQMD 2015c).

Mass emissions in Table 4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact. SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. To achieve the health-based standards established by the EPA, SCAQMD prepares an AQMP that details regional programs to attain the AAQS.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because

CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hot spot analysis conducted for the attainment by SCAQMD for busiest intersections in Los Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards.⁷ As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection (SCAQMD 1992; SCAQMD 2003). Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2017).

LOCALIZED SIGNIFICANCE THRESHOLDS

SCAQMD developed LSTs for emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS and are shown in Table 5.

Table 5 SCAQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO ₂ Standard (CAAQS)	0.18 ppm
Annual NO ₂ Standard (CAAQS)	0.03 ppm
24-Hour PM ₁₀ Standard – Construction (SCAQMD) ¹	10.4 µg/m ³
24-Hour PM _{2.5} Standard – Construction (SCAQMD) ¹	10.4 µg/m ³
24-Hour PM ₁₀ Standard – Operation (SCAQMD) ¹	2.5 µg/m ³
24-Hour PM _{2.5} Standard – Operation (SCAQMD) ¹	2.5 µg/m ³

Source: SCAQMD 2019.

ppm – parts per million; µg/m³ – micrograms per cubic meter

¹ Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM₁₀ and PM_{2.5}, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

⁷ The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5 for projects under 5-acres. These “screening-level” LSTs tables are the localized significance thresholds for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.

In accordance with SCAQMD’s LST methodology, the screening-level construction LSTs are based on the acreage disturbed per day based on equipment use. The screening-level construction LSTs for the project site in SRA 17 are shown in Table 6, *SCAQMD Screening-Level Construction Localized Significance Thresholds*, for receptors within 82 feet (25 meters) for NO_x and CO and 380 feet (116 meters) for PM₁₀ and PM_{2.5}.

Table 6 SCAQMD Screening-Level Construction Localized Significance Thresholds

Acreage Disturbed	Threshold (lbs/day) ¹			
	Nitrogen Oxides (NO _x)	Carbon Monoxide (CO)	Coarse Particulates (PM ₁₀)	Fine Particulates (PM _{2.5})
≤1.00 Acre Disturbed Per Day	81	485	33	11
1.50 Acres Disturbed Per Day	98	600	37	12
3.50 Acres Disturbed Per Day	149	984	50	15
4.00 Acres Disturbed Per Day	160	1,074	54	16
5.00 Acres Disturbed Per Day	183	1,253	60	18

Source: SCAQMD 2008a and 2011.
¹ The NO_x and CO screening-level LSTs are based on receptors within 82 feet (25 meters) in SRA 17.

Because the project is not an industrial project that has the potential to emit substantial sources of stationary emissions, operational LSTs are not an air quality impact of concern associated with the project.

Health Risk

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401, placed on CARB’s air toxics list pursuant to AB 1807, or placed on the EPA’s National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table 7, *Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478)). CEQA does not require CEQA-level environmental document to analyze the environmental effects of attracting development and people to an area. However, the environmental document must analyze the impacts of environmental hazards on future users, when a proposed project exacerbates an existing environmental hazard or condition. Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

Table 7 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases
Source: SCAQMD 2019.	

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,⁸ carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).⁹ The major GHG are briefly described below.

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are

⁸ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

⁹ Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017b). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

- **Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
- **Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₄] and perfluoroethane [C₂F₆]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.
- **Sulfur Hexafluoride (SF₆)** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
- **Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.
- **Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; USEPA 2019b).

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 8. The GWP is used to convert GHGs to CO₂-equivalence (CO₂e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4) GWP values for CH₄, a project that generates 10 metric tons (MT) of CH₄ would be equivalent to 250 MT of CO₂.¹⁰

Table 8 GHG Emissions and Their Relative Global Warming Potential Compared to CO₂

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO ₂ ¹	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ¹
Carbon Dioxide (CO ₂)	50 to 200	50 to 200	1	1
Methane ² (CH ₄)	12 (±3)	12	21	25
Nitrous Oxide (N ₂ O)	120	114	310	298
Hydrofluorocarbons:				
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF ₄	50,000	50,000	6,500	7,390
Perfluoroethane: C ₂ F ₆	10,000	10,000	9,200	12,200
Perfluorobutane: C ₄ F ₁₀	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C ₆ F ₁₄	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF ₆)	3,200	NA	23,900	22,800

Source: IPCC 1995; IPCC 2007.

Notes: The GWP values in the IPCC's Fifth Assessment Report (2013) reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂. However, SCAQMD uses the AR4 GWP values to maintain consistency in statewide GHG emissions modeling. In addition, the 2017 Scoping Plan Update was based on the AR4 GWP values.

¹ Based on 100-year time horizon of the GWP of the air pollutant relative to CO₂.

² The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

California's Greenhouse Gas Sources and Relative Contribution

In 2019, the statewide GHG emissions inventory was updated for 2000 to 2017 emissions using the GWPs in IPCC's AR4.¹¹ Based on these GWPs, California produced 424.10 MMTCO₂e GHG emissions in 2017. California's transportation sector was the single largest generator of GHG emissions, producing 40.1 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.7 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (9.7 percent), agriculture and forestry (7.6 percent) high GWP (4.7 percent), and recycling and waste (2.1 percent) (CARB 2019a).

California's GHG emissions have followed a declining trend since 2007. In 2017, emissions from routine GHG emitting activities statewide were 424 MMTCO₂e, 5 MMTCO₂e lower than 2016 levels. This represents an overall decrease of 14 percent since peak levels in 2004 and 7 MMTCO₂e below the 1990 level and the state's

¹¹ Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

2020 GHG target. During the 2000 to 2017 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 14.0 MTCO_{2e} per capita to 10.7 MTCO_{2e} per capita in 2017, a 24 percent decrease. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining, representing a 41 percent decline since the 2001 peak, while the state's GDP has grown 52 percent during this period. For the first time since California started to track GHG emissions, California uses more electricity from zero-GHG sources (hydro, solar, wind, and nuclear energy). (CARB 2019b).

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The EPA announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per SCAQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO₂ per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025 that will require a fleet average of 54.5 miles per gallon in 2025.

While the EPA is reexamining the 2017–2025 emissions and CAFE standards, a consortium of automakers and California have agreed on a voluntary framework to reduce emissions that can serve as an alternative path forward for clean vehicle standards nationwide. Automakers who agreed to the framework are Ford, Honda,

BMW of North America and Volkswagen Group of America. The framework supports continued annual reductions of vehicle greenhouse gas emissions through the 2026 model year, encourages innovation to accelerate the transition to electric vehicles, and provides industry the certainty needed to make investments and create jobs. This commitment means that the auto companies party to the voluntary agreement will only sell cars in the United States that meet these standards (CARB 2019c).

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule which became effective on August 19, 2019. The ACE rule was crafted under the direction of President Trump's Energy Independence Executive Order. It officially rescinds the Clean Power Plan rule issued during the Obama Administration and sets emissions guidelines for states in developing plans to limit CO₂ emissions from coal-fired power plants.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32) and Senate Bill 375 (SB 375).

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be approximately 596 MMTCO₂e in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO₂e (471 million tons) for the state (CARB 2008). In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than

25,000 MTCO₂e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 MMTCO₂e 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 MMTCO₂e (CARB 2014).

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197

requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO₂e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017c).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

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

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the State's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 MTCO₂e or less per capita by 2030 and 2 MTCO₂e or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State's

1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the state’s long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 9. It includes the existing renewables requirements, advanced clean cars, the “10 percent” Low Carbon Fuel Standard (LCFS), and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 MMTCO₂e above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 9 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions MMTCO ₂ e
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	260
Gap to 2030 Target	60

Source: CARB 2017c.

Table 10 provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

Table 10 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 MMTCO ₂ e	2030 Proposed Plan Ranges MMTCO ₂ e	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink ¹	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	431	260	-40%

Source: CARB 2017c.

Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.

¹ Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the “Final Proposed Short-Lived Climate Pollutant Reduction Strategy,” which identifies the state’s approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use (CARB 2017a). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. SCAQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these char broilers by over 80 percent (CARB 2017a). Additionally, SCAQMD Rule 445 limits installation of new fireplaces in the SoCAB.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle

trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 MMTCO_{2e} of reductions by 2020 and 15 MMTCO_{2e} of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and recently released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 MMTCO_{2e} in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018 are subject to these new targets.

SCAG's 2016-2040 RTP/SCS

SB 375 requires each MPO to prepare an SCS in their regional transportation plan. For the SCAG region, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on April 7, 2016, and is an update to the 2012 RTP/SCS (SCAG 2016). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger per capita targets set in 2010 by CARB. It is projected that VMT per capita in the region for year 2040 would be reduced by 7.4 percent with implementation of the 2016-2040 RTP/SCS compared to a no-plan year 2040 scenario. Under the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2 percent increase in reduction compared to the 2012 RTP/SCS projection. Overall, the SCS is meant to provide growth strategies that will achieve the aforementioned regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016). However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the RPS established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-

2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law in September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirement of 45 percent renewable energy by 2027 with the requirement of 50 percent by 2026 and also raises California's RPS requirements for 2050 from 50 percent to 60 percent. SB 100 also establishes RPS requirements for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Furthermore, the bill also establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_{2e} from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the CEC adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017.

The 2016 Standards continues to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively (CEC 2015a). Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features. While the 2016 standards do not achieve zero net energy, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

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

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.¹² The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2019. The 2019 CALGreen will become effective on January 1, 2020.

¹² The green building standards became mandatory in the 2010 edition of the code.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as “business as usual,” they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California’s Integrated Waste Management Act of 1989 (AB 939; Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327; Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2016 and 2019 CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a

water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.¹³

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency (SCAQMD 2010):

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

¹³ The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD is proposing a screening-level threshold of 3,000 MTCO₂e annually for all land use types or the following land-use-specific thresholds: 1,400 MTCO₂e for commercial projects, 3,500 MTCO₂e for residential projects, or 3,000 MTCO₂e for mixed-use projects. These bright-line thresholds are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

The SCAQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 MTCO₂e per year per service population (MTCO₂e/year/SP) for project-level analyses and 6.6 MTCO₂e/year/SP for plan level projects (e.g., program-level projects such as general plans) for the year 2020.¹⁴ The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.¹⁵

For purposes of this analysis, because the proposed project has an anticipated opening year post-2020 (year 2023), the bright-line screening-level criterion of 3,000 MTCO₂e/yr is used as the significance threshold for this project. Therefore, if the project operation-phase emissions exceed the 3,000 MTCO₂e/yr threshold, GHG emissions would be considered potentially significant in the absence of mitigation measures.

¹⁴ It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

¹⁵ SCAQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

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Regional Construction Emissions Worksheet:

Site Preparation

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	2020 Summer						
	Fugitive Dust					8.6301	4.3433
	Off-Road	5.5539	63.7874	22.3947	0.057	2.7875	2.5645
	Total	5.5539	63.7874	22.3947	0.057	11.4176	6.9078
Offsite	Hauling	0.2036	7.415	1.8736	0.0206	0.4615	0.1436
	Vendor	6.39E-03	0.2084	0.055	5.00E-04	0.013	4.52E-03
	Worker	0.0692	0.0436	0.5892	1.97E-03	0.1868	0.0507
	Total	0.2792	7.6669	2.5178	0.0231	0.6613	0.1989
TOTAL		5.8331	71.4543	24.9125	0.0801	12.0789	7.1067
Onsite	2020 Winter						
	Fugitive Dust					8.6301	4.3433
	Off-Road	5.5539	63.7874	22.3947	0.057	2.7875	2.5645
	Total	5.5539	63.7874	22.3947	0.057	11.4176	6.9078
Offsite	Hauling	0.2087	7.5084	1.9727	0.0203	0.4619	0.1441
	Vendor	6.67E-03	0.2083	0.0603	4.90E-04	0.0131	4.53E-03
	Worker	0.0782	0.0479	0.5446	1.86E-03	0.1868	0.0507
	Total	0.2935	7.7645	2.5775	0.0227	0.6618	0.1993
TOTAL		5.8474	71.5519	24.9722	0.0797	12.0794	7.1071
Onsite	2020						
	Fugitive Dust	0	0	0	0	8.6301	4.3433
	Off-Road	5.5539	63.7874	22.3947	0.057	2.7875	2.5645
	Total	5.5539	63.7874	22.3947	0.057	11.4176	6.9078
Offsite	Hauling	0.2087	7.5084	1.9727	0.0206	0.4619	0.1441
	Vendor	0.00667	0.2084	0.0603	0.0005	0.0131	0.00453
	Worker	0.0782	0.0479	0.5892	0.00197	0.1868	0.0507
	Total	0.2935	7.7645	2.5775	0.0231	0.6618	0.1993
TOTAL		5.8474	71.5519	24.9722	0.0801	12.0794	7.1071

Site Preparation and Grading

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	2020 Summer						
	Fugitive Dust					9.7635	4.4657
	Off-Road	8.5055	98.4424	45.662	0.1043	4.1402	3.809
	Total	8.5055	98.4424	45.662	0.1043	13.9037	8.2746
Offsite	Hauling	0.2039	7.4242	1.8759	0.0207	0.462	0.1438
	Vendor	6.39E-03	0.2084	0.055	5.00E-04	0.013	4.52E-03
	Worker	0.1153	0.0726	0.982	3.28E-03	0.3113	0.0845
	Total	0.3256	7.7052	2.9129	0.0245	0.7864	0.2329
TOTAL		8.8311	106.1476	48.5749	0.1288	14.6901	8.5075
Onsite	2020 Winter						
	Fugitive Dust					9.7635	4.4657
	Off-Road	8.5055	98.4424	45.662	0.1043	4.1402	3.809
	Total	8.5055	98.4424	45.662	0.1043	13.9037	8.2746
Offsite	Hauling	0.209	7.5176	1.9751	0.0204	0.4625	0.1442
	Vendor	6.67E-03	0.2083	0.0603	4.90E-04	0.0131	4.53E-03
	Worker	0.1303	0.0798	0.9076	3.10E-03	0.3113	0.0845
	Total	0.3459	7.8057	2.943	0.0239	0.7868	0.2333
TOTAL		8.8514	106.2481	48.6050	0.1282	14.6905	8.5079
Onsite	2020						
	Fugitive Dust	0	0	0	0	9.7635	4.4657
	Off-Road	8.5055	98.4424	45.662	0.1043	4.1402	3.809
	Total	8.5055	98.4424	45.662	0.1043	13.9037	8.2746
Offsite	Hauling	0.209	7.5176	1.9751	0.0207	0.4625	0.1442
	Vendor	0.00667	0.2084	0.0603	0.0005	0.0131	0.00453
	Worker	0.1303	0.0798	0.982	0.00328	0.3113	0.0845
	Total	0.3459	7.8057	2.943	0.0245	0.7868	0.2333
TOTAL		8.8514	106.2481	48.605	0.1288	14.6905	8.5079

Demolition						
		ROG	NOx	CO	SO2	PM10 Total
Onsite	2020 Summer					
	Fugitive Dust					1.243
	Off-Road	0	0	0	0	0
	Total	0	0	0	0	1.243
Offsite	Hauling	0.1031	3.7533	0.9484	0.0105	0.2336
	Vendor	0	0	0	0	0
	Worker	0	0	0	0	0
	Total	0.1031	3.7533	0.9484	0.0105	0.2336
TOTAL		0.1031	3.7533	0.9484	0.0105	1.4766
Onsite	2020 Winter					
	Fugitive Dust					1.243
	Off-Road	0	0	0	0	0
	Total	0	0	0	0	1.243
Offsite	Hauling	0.1056	3.8006	0.9985	0.0103	0.2338
	Vendor	0	0	0	0	0
	Worker	0	0	0	0	0
	Total	0.1056	3.8006	0.9985	0.0103	0.2338
TOTAL		0.1056	3.8006	0.9985	0.0103	1.4768
Onsite	2020					
	Fugitive Dust	0	0	0	0	1.243
	Off-Road	0	0	0	0	0
	Total	0	0	0	0	1.243
Offsite	Hauling	0.1056	3.8006	0.9985	0.0105	0.2338
	Vendor	0	0	0	0	0
	Worker	0	0	0	0	0
	Total	0.1056	3.8006	0.9985	0.0105	0.2338
TOTAL		0.1056	3.8006	0.9985	0.0105	1.4768
Grading						
		ROG	NOx	CO	SO2	PM10 Total
Onsite	2020 Summer					
	Fugitive Dust					4.1612
	Off-Road	5.1888	60.8826	32.3988	0.0715	2.469
	Total	5.1888	60.8826	32.3988	0.0715	6.6302
Offsite	Hauling	0	0	0	0	0
	Vendor	6.39E-03	0.2084	0.055	5.00E-04	0.013
	Worker	0.0769	0.0484	0.6547	2.19E-03	0.2075
	Total	0.0833	0.2568	0.7096	2.69E-03	0.2206
TOTAL		5.2721	61.1394	33.1084	0.0742	6.8508
Onsite	2020 Winter					
	Fugitive Dust					4.1612
	Off-Road	5.1888	60.8826	32.3988	0.0715	2.469
	Total	5.1888	60.8826	32.3988	0.0715	6.6302
Offsite	Hauling	0	0	0	0	0
	Vendor	6.67E-03	0.2083	0.0603	4.90E-04	0.0131
	Worker	0.0869	0.0532	0.6051	2.07E-03	0.2075
	Total	0.0935	0.2615	0.6654	2.56E-03	0.2206
TOTAL		5.2823	61.1441	33.0642	0.0741	6.8508
Onsite	2020					
	Fugitive Dust	0	0	0	0	4.1612
	Off-Road	5.1888	60.8826	32.3988	0.0715	2.469
	Total	5.1888	60.8826	32.3988	0.0715	6.6302
Offsite	Hauling	0	0	0	0	0
	Vendor	0.00667	0.2084	0.0603	0.0005	0.0131
	Worker	0.0869	0.0532	0.6547	0.00219	0.2075
	Total	0.0935	0.2615	0.7096	0.00269	0.2206
TOTAL		5.2823	61.1441	33.1084	0.07419	6.8508

Building Construction 2020

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	2020 Summer						
	Off-Road	2.2551	20.6494	17.9678	0.0288	1.1948	1.1218
	Total	2.2551	20.6494	17.9678	0.0288	1.1948	1.1218
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1661	5.4172	1.4298	0.013	0.3392	0.1174
	Worker	0.7071	0.4455	6.0228	0.0201	1.9094	0.5185
	Total	0.8732	5.8627	7.4526	0.0331	2.2485	0.6359
TOTAL		3.1283	26.5121	25.4204	0.0619	3.4433	1.7577
Onsite	2020 Winter						
	Off-Road	2.2551	20.6494	17.9678	0.0288	1.1948	1.1218
	Total	2.2551	20.6494	17.9678	0.0288	1.1948	1.1218
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1735	5.4154	1.5672	0.0126	0.3397	0.1179
	Worker	0.7991	0.4896	5.5667	0.019	1.9094	0.5185
	Total	0.9725	5.905	7.1339	0.0317	2.249	0.6363
TOTAL		3.2276	26.5544	25.1017	0.0605	3.4438	1.7581
Onsite	2020						
	Off-Road	2.2551	20.6494	17.9678	0.0288	1.1948	1.1218
	Total	2.2551	20.6494	17.9678	0.0288	1.1948	1.1218
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1735	5.4172	1.5672	0.013	0.3397	0.1179
	Worker	0.7991	0.4896	6.0228	0.0201	1.9094	0.5185
	Total	0.9725	5.905	7.4526	0.0331	2.249	0.6363
TOTAL		3.2276	26.5544	25.4204	0.0619	3.4438	1.7581

Building Construction 2021

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	2021 Summer						
	Off-Road	2.0228	18.7492	17.6706	0.0288	1.0251	0.9625
	Total	2.0228	18.7492	17.6706	0.0288	1.0251	0.9625
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1388	4.8783	1.323	0.0128	0.321	0.1001
	Worker	0.6641	0.4018	5.5886	0.0194	1.9091	0.5182
	Total	0.8029	5.2802	6.9116	0.0322	2.2301	0.6183
TOTAL		2.8257	24.0294	24.5822	0.0610	3.2552	1.5808
Onsite	2021 Winter						
	Off-Road	2.0228	18.7492	17.6706	0.0288	1.0251	0.9625
	Total	2.0228	18.7492	17.6706	0.0288	1.0251	0.9625
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1457	4.8668	1.4515	0.0125	0.3214	0.1004
	Worker	0.7519	0.4416	5.1569	0.0184	1.9091	0.5182
	Total	0.8976	5.3084	6.6084	0.0309	2.2305	0.6186
TOTAL		2.9204	24.0576	24.2790	0.0597	3.2556	1.5811
Onsite	2021						
	Off-Road	2.0228	18.7492	17.6706	0.0288	1.0251	0.9625
	Total	2.0228	18.7492	17.6706	0.0288	1.0251	0.9625
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1457	4.8783	1.4515	0.0128	0.3214	0.1004
	Worker	0.7519	0.4416	5.5886	0.0194	1.9091	0.5182
	Total	0.8976	5.3084	6.9116	0.0322	2.2305	0.6186
TOTAL		2.9204	24.0576	24.5822	0.0610	3.2556	1.5811

Building Construction 2022								
			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2022 Summer						
	Off-Road		1.8146	16.767	17.4392	0.0288	0.8645	0.8122
	Total		1.8146	16.767	17.4392	0.0288	0.8645	0.8122
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.1305	4.6153	1.2775	0.0127	0.3197	0.0988
	Worker		0.6277	0.3641	5.216	0.0187	1.9088	0.518
	Total		0.7581	4.9793	6.4935	0.0314	2.2285	0.6168
TOTAL			2.5727	21.7463	23.9327	0.0602	3.0930	1.4290
Onsite		2022 Winter						
	Off-Road		1.8146	16.767	17.4392	0.0288	0.8645	0.8122
	Total		1.8146	16.767	17.4392	0.0288	0.8645	0.8122
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.137	4.6012	1.3995	0.0124	0.32	0.0991
	Worker		0.7125	0.4	4.8057	0.0177	1.9088	0.518
	Total		0.8494	5.0012	6.2052	0.0301	2.2289	0.6171
TOTAL			2.6640	21.7682	23.6444	0.0589	3.0934	1.4293
Onsite		2022						
	Off-Road		1.8146	16.767	17.4392	0.0288	0.8645	0.8122
	Total		1.8146	16.767	17.4392	0.0288	0.8645	0.8122
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.137	4.6153	1.3995	0.0127	0.32	0.0991
	Worker		0.7125	0.4	5.216	0.0187	1.9088	0.518
	Total		0.8494	5.0012	6.4935	0.0314	2.2289	0.6171
TOTAL			2.6640	21.7682	23.9327	0.0602	3.0934	1.4293
Architectural Coating								
			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2022 Summer						
	Archit. Coating		34.5329				0	0
	Off-Road		0.2727	1.878	2.4181	3.96E-03	0.109	0.109
	Total		34.8057	1.878	2.4181	3.96E-03	0.109	0.109
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0	0	0	0	0	0
	Worker		0.1262	0.0732	1.0489	3.76E-03	0.3838	0.1042
	Total		0.1262	0.0732	1.0489	3.76E-03	0.3838	0.1042
TOTAL			34.9319	1.9512	3.4670	0.0077	0.4928	0.2132
Onsite		2022 Winter						
	Archit. Coating		34.5329				0	0
	Off-Road		0.2727	1.878	2.4181	3.96E-03	0.109	0.109
	Total		34.8057	1.878	2.4181	3.96E-03	0.109	0.109
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0	0	0	0	0	0
	Worker		0.1433	0.0804	0.9664	3.56E-03	0.3838	0.1042
	Total		0.1433	0.0804	0.9664	3.56E-03	0.3838	0.1042
TOTAL			34.9490	1.9584	3.3845	0.0075	0.4928	0.2132
Onsite		2022						
	Archit. Coating		34.5329	0	0	0	0	0
	Off-Road		0.2727	1.878	2.4181	0.00396	0.109	0.109
	Total		34.8057	1.878	2.4181	0.00396	0.109	0.109
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0	0	0	0	0	0
	Worker		0.1433	0.0804	1.0489	0.00376	0.3838	0.1042
	Total		0.1433	0.0804	1.0489	0.00376	0.3838	0.1042
TOTAL			34.949	1.9584	3.467	0.00772	0.4928	0.2132

Paving 2022						
		ROG	NOx	CO	SO2	PM10 Total
Onsite		2022 Summer				
	Off-Road	1.1028	11.1249	14.5805	0.0228	0.5679
	Paving	0.1004				0
	Total	1.2033	11.1249	14.5805	0.0228	0.5679
Offsite						
	Hauling	0	0	0	0	0
	Vendor	0	0	0	0	0
	Worker	0.0512	0.0297	0.4252	1.52E-03	0.1556
	Total	0.0512	0.0297	0.4252	1.52E-03	0.1556
TOTAL		1.2545	11.1546	15.0057	0.0243	0.7235
Onsite		2022 Winter				
	Off-Road	1.1028	11.1249	14.5805	0.0228	0.5679
	Paving	0.1004				0
	Total	1.2033	11.1249	14.5805	0.0228	0.5679
Offsite						
	Hauling	0	0	0	0	0
	Vendor	0	0	0	0	0
	Worker	0.0581	0.0326	0.3918	1.44E-03	0.1556
	Total	0.0581	0.0326	0.3918	1.44E-03	0.1556
TOTAL		1.2614	11.1575	14.9723	0.0242	0.7235
Onsite		2022				
	Off-Road	1.1028	11.1249	14.5805	0.0228	0.5679
	Paving	0.1004	0	0	0	0
	Total	1.2033	11.1249	14.5805	0.0228	0.5679
Offsite						
	Hauling	0	0	0	0	0
	Vendor	0	0	0	0	0
	Worker	0.0581	0.0326	0.4252	0.00152	0.1556
	Total	0.0581	0.0326	0.4252	0.00152	0.1556
TOTAL		1.2614	11.1575	15.0057	0.02432	0.7235
Paving 2023						
		ROG	NOx	CO	SO2	PM10 Total
Onsite		2023 Summer				
	Off-Road	1.0327	10.1917	14.5842	0.0228	0.5102
	Paving	0.1004				0
	Total	1.1332	10.1917	14.5842	0.0228	0.5102
Offsite						
	Hauling	0	0	0	0	0
	Vendor	0	0	0	0	0
	Worker	0.0485	0.027	0.3966	1.46E-03	0.1556
	Total	0.0485	0.027	0.3966	1.46E-03	0.1556
TOTAL		1.1817	10.2187	14.9808	0.0243	0.6658
Onsite		2023 Winter				
	Off-Road	1.0327	10.1917	14.5842	0.0228	0.5102
	Paving	0.1004				0
	Total	1.1332	10.1917	14.5842	0.0228	0.5102
Offsite						
	Hauling	0	0	0	0	0
	Vendor	0	0	0	0	0
	Worker	0.0552	0.0296	0.3648	1.39E-03	0.1556
	Total	0.0552	0.0296	0.3648	1.39E-03	0.1556
TOTAL		1.1884	10.2213	14.9490	0.0242	0.6658
Onsite		2023				
	Off-Road	1.0327	10.1917	14.5842	0.0228	0.5102
	Paving	0.1004	0	0	0	0
	Total	1.1332	10.1917	14.5842	0.0228	0.5102
Offsite						
	Hauling	0	0	0	0	0
	Vendor	0	0	0	0	0
	Worker	0.0552	0.0296	0.3966	0.00146	0.1556
	Total	0.0552	0.0296	0.3966	0.00146	0.1556
TOTAL		1.1884	10.2213	14.9808	0.02426	0.6658

<i>Site Preparation</i>	<i>5.8474</i>	<i>71.5519</i>	<i>24.9722</i>	<i>0.0801</i>	<i>12.0794</i>	<i>7.1071</i>
<i>Site Preparation, Demolition, and Grading</i>	<i>8.9570</i>	<i>110.0487</i>	<i>49.6035</i>	<i>0.1393</i>	<i>16.1673</i>	<i>8.7690</i>
<i>Demolition and Grading</i>	<i>5.3879</i>	<i>64.9447</i>	<i>34.1069</i>	<i>0.0847</i>	<i>8.3276</i>	<i>4.1799</i>
<i>Grading</i>	<i>5.2823</i>	<i>61.1441</i>	<i>33.1084</i>	<i>0.0742</i>	<i>6.8508</i>	<i>3.9188</i>
<i>Grading and Building Construction</i>	<i>8.5099</i>	<i>87.6985</i>	<i>58.5288</i>	<i>0.1361</i>	<i>10.2946</i>	<i>5.6769</i>
<i>Building Construction 2020</i>	<i>3.2276</i>	<i>26.5544</i>	<i>25.4204</i>	<i>0.0619</i>	<i>3.4438</i>	<i>1.7581</i>
<i>Building Construction 2021</i>	<i>2.9204</i>	<i>24.0576</i>	<i>24.5822</i>	<i>0.0610</i>	<i>3.2556</i>	<i>1.5811</i>
<i>Building Construction 2022</i>	<i>2.6640</i>	<i>21.7682</i>	<i>23.9327</i>	<i>0.0602</i>	<i>3.0934</i>	<i>1.4293</i>
<i>Building Construction 2022 and Architectural Coating</i>	<i>37.6130</i>	<i>23.7266</i>	<i>27.3997</i>	<i>0.0679</i>	<i>3.5862</i>	<i>1.6425</i>
<i>Architectural Coating</i>	<i>34.9490</i>	<i>1.9584</i>	<i>3.4670</i>	<i>0.0077</i>	<i>0.4928</i>	<i>0.2132</i>
<i>Paving 2022 and Architectural Coating</i>	<i>36.2104</i>	<i>13.1159</i>	<i>18.4727</i>	<i>0.0320</i>	<i>1.2163</i>	<i>0.7779</i>
<i>Paving 2022</i>	<i>1.2614</i>	<i>11.1575</i>	<i>15.0057</i>	<i>0.0243</i>	<i>0.7235</i>	<i>0.5647</i>
<i>Paving 2023</i>	<i>1.1884</i>	<i>10.2213</i>	<i>14.9808</i>	<i>0.0243</i>	<i>0.6658</i>	<i>0.5116</i>
MAX DAILY	37.61	110.05	58.53	0.14	16.17	8.77
Regional Thresholds	75	100	550	150	150	55
Exceeds Thresholds?	No	Yes	No	No	No	No

Regional Construction Emissions Worksheet:

Site Preparation

			NOx	CO	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust	2020			8.6301	4.3433
			63.7874	22.3947	2.7875	2.5645
			63.7874	22.3947	11.4176	6.9078
Offsite	Hauling					
TOTAL	Total		63.7874	22.3947	11.4176	6.9078
Onsite	Fugitive Dust	2020			8.6301	4.3433
			63.7874	22.3947	2.7875	2.5645
			63.7874	22.3947	11.4176	6.9078
Offsite	Hauling					
TOTAL	Total		63.7874	22.3947	11.4176	6.9078
Onsite	Fugitive Dust	2020	0	0	8.6301	4.3433
			63.7874	22.3947	2.7875	2.5645
			63.7874	22.3947	11.4176	6.9078
Offsite	Hauling		0	0	0	
			0	0	0	
			0	0	0	
			0	0	0	
TOTAL			63.7874	22.3947	11.4176	6.9078

Site Preparation and Grading

			NOx	CO	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust Off-Road Total	2020			9.7635	4.4657
			98.4424	45.662	4.1402	3.809
			98.4424	45.662	13.9037	8.2746
Offsite	Hauling Vendor Worker Total					
TOTAL			98.4424	45.6620	13.9037	8.2746
Onsite	Fugitive Dust Off-Road Total	2020			9.7635	4.4657
			98.4424	45.662	4.1402	3.809
			98.4424	45.662	13.9037	8.2746
Offsite	Hauling Vendor Worker Total					
TOTAL			98.4424	45.6620	13.9037	8.2746
Onsite	Fugitive Dust Off-Road Total	2020	0	0	9.7635	4.4657
			98.4424	45.662	4.1402	3.809
			98.4424	45.662	13.9037	8.2746
Offsite	Hauling Vendor Worker Total		0	0	0	0
			0	0	0	0
			0	0	0	0
			0	0	0	0
TOTAL			98.4424	45.662	13.9037	8.2746

Demolition						
			NOx	CO	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust Off-Road Total	2020			1.243	0.1882
			0	0	0	0
			0	0	1.243	0.1882
Offsite	Hauling Vendor Worker Total					
TOTAL			0.0000	0.0000	1.2430	0.1882
Onsite	Fugitive Dust Off-Road Total	2020			1.243	0.1882
			0	0	0	0
			0	0	1.243	0.1882
Offsite	Hauling Vendor Worker Total					
TOTAL			0.0000	0.0000	1.2430	0.1882
Onsite	Fugitive Dust Off-Road Total	2020	0	0	1.243	0.1882
			0	0	0	0
			0	0	1.243	0.1882
Offsite	Hauling Vendor Worker Total		0	0	0	0
			0	0	0	0
			0	0	0	0
			0	0	0	0
TOTAL			0	0	1.243	0.1882
Grading						
			NOx	CO	PM10 Total	PM2.5 Total
Onsite	Fugitive Dust Off-Road Total	2020			4.1612	1.5865
			60.8826	32.3988	2.469	2.2714
			60.8826	32.3988	6.6302	3.8579
Offsite	Hauling Vendor Worker Total					
TOTAL			60.8826	32.3988	6.6302	3.8579
Onsite	Fugitive Dust Off-Road Total	2020			4.1612	1.5865
			60.8826	32.3988	2.469	2.2714
			60.8826	32.3988	6.6302	3.8579
Offsite	Hauling Vendor Worker Total					
TOTAL			60.8826	32.3988	6.6302	3.8579
Onsite	Fugitive Dust Off-Road Total	2020	0	0	4.1612	1.5865
			60.8826	32.3988	2.469	2.2714
			60.8826	32.3988	6.6302	3.8579
Offsite	Hauling Vendor Worker Total		0	0	0	0
			0	0	0	0
			0	0	0	0
			0	0	0	0
TOTAL			60.8826	32.3988	6.6302	3.8579

Building Construction 2020

			NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road	2020				
			20.6494	17.9678	1.1948	1.1218
	Total		20.6494	17.9678	1.1948	1.1218
Offsite	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			20.6494	17.9678	1.1948	1.1218
Onsite	Off-Road	2020				
			20.6494	17.9678	1.1948	1.1218
	Total		20.6494	17.9678	1.1948	1.1218
Offsite	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			20.6494	17.9678	1.1948	1.1218
Onsite	Off-Road	2020	20.6494	17.9678	1.1948	1.1218
			20.6494	17.9678	1.1948	1.1218
Offsite	Hauling		0	0	0	0
	Vendor		0	0	0	0
	Worker		0	0	0	0
	Total		0	0	0	0
TOTAL			20.6494	17.9678	1.1948	1.1218

Building Construction 2021

			NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road	2021				
			18.7492	17.6706	1.0251	0.9625
	Total		18.7492	17.6706	1.0251	0.9625
Offsite	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			18.7492	17.6706	1.0251	0.9625
Onsite	Off-Road	2021				
			18.7492	17.6706	1.0251	0.9625
	Total		18.7492	17.6706	1.0251	0.9625
Offsite	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			18.7492	17.6706	1.0251	0.9625
Onsite	Off-Road	2021	18.7492	17.6706	1.0251	0.9625
			18.7492	17.6706	1.0251	0.9625
Offsite	Hauling		0	0	0	0
	Vendor		0	0	0	0
	Worker		0	0	0	0
	Total		0	0	0	0
TOTAL			18.7492	17.6706	1.0251	0.9625

Building Construction 2022						
			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2022				
	Off-Road		16.767	17.4392	0.8645	0.8122
	Total		16.767	17.4392	0.8645	0.8122
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			16.7670	17.4392	0.8645	0.8122
Onsite		2022				
	Off-Road		16.767	17.4392	0.8645	0.8122
	Total		16.767	17.4392	0.8645	0.8122
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			16.7670	17.4392	0.8645	0.8122
Onsite		2022				
	Off-Road		16.767	17.4392	0.8645	0.8122
	Total		16.767	17.4392	0.8645	0.8122
Offsite						
	Hauling		0	0	0	0
	Vendor		0	0	0	0
	Worker		0	0	0	0
	Total		0	0	0	0
TOTAL			16.7670	17.4392	0.8645	0.8122
Architectural Coating 2022						
			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2022				
	Archit. Coating				0	0
	Off-Road		1.878	2.4181	0.109	0.109
	Total		1.878	2.4181	0.109	0.109
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			1.8780	2.4181	0.1090	0.1090
Onsite		2022				
	Archit. Coating				0	0
	Off-Road		1.878	2.4181	0.109	0.109
	Total		1.878	2.4181	0.109	0.109
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			1.8780	2.4181	0.1090	0.1090
Onsite		2022				
	Archit. Coating		0	0	0	0
	Off-Road		1.878	2.4181	0.109	0.109
	Total		1.878	2.4181	0.109	0.109
Offsite						
	Hauling		0	0	0	0
	Vendor		0	0	0	0
	Worker		0	0	0	0
	Total		0	0	0	0
TOTAL			1.878	2.4181	0.109	0.109

Paving 2022						
			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2022				
	Off-Road		11.1249	14.5805	0.5679	0.5225
	Paving				0	0
	Total		11.1249	14.5805	0.5679	0.5225
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			11.1249	14.5805	0.5679	0.5225
Onsite		2022				
	Off-Road		11.1249	14.5805	0.5679	0.5225
	Paving				0	0
	Total		11.1249	14.5805	0.5679	0.5225
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			11.1249	14.5805	0.5679	0.5225
Onsite		2022				
	Off-Road		11.1249	14.5805	0.5679	0.5225
	Paving		0	0	0	0
	Total		11.1249	14.5805	0.5679	0.5225
Offsite						
	Hauling		0	0	0	0
	Vendor		0	0	0	0
	Worker		0	0	0	0
	Total		0	0	0	0
TOTAL			11.1249	14.5805	0.5679	0.5225

Paving 2023						
			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2023				
	Off-Road		10.1917	14.5842	0.5102	0.4694
	Paving				0	0
	Total		10.1917	14.5842	0.5102	0.4694
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			10.1917	14.5842	0.5102	0.4694
Onsite		2023				
	Off-Road		10.1917	14.5842	0.5102	0.4694
	Paving				0	0
	Total		10.1917	14.5842	0.5102	0.4694
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			10.1917	14.5842	0.5102	0.4694
Onsite		2023				
	Off-Road		10.1917	14.5842	0.5102	0.4694
	Paving		0	0	0	0
	Total		10.1917	14.5842	0.5102	0.4694
Offsite						
	Hauling		0	0	0	0
	Vendor		0	0	0	0
	Worker		0	0	0	0
	Total		0	0	0	0
TOTAL			10.1917	14.5842	0.5102	0.4694

	NOx	CO	PM ₁₀ Total	PM _{2.5} Total
Site Preparation	63.7874	22.3947	11.4176	6.9078
3.50 Acre LST	149	984	50.22	15.45
Exceeds LST?	no	no	no	no
Site Preparation, Demolition, and Grading	98.4424	45.6620	15.1467	8.4628
6.50 Acre LST	183	1,253	60.22	17.69
Exceeds LST?	no	no	no	no
Demolition and Grading	60.8826	32.3988	7.8732	4.0461
4.00 Acre LST	160	1,074	53.56	16.20
Exceeds LST?	no	no	no	no
Grading	60.8826	32.3988	6.6302	3.8579
4.00 Acre LST	160	1,074	53.56	16.20
Exceeds LST?	no	no	no	no
Grading and Building Construction 2020	81.5320	50.3666	7.8250	4.9797
5.50 Acre LST	183	1,253	60.22	17.69
Exceeds LST?	no	no	no	no
Building Construction 2020	20.6494	17.9678	1.1948	1.1218
1.50 Acre LST	98	600	36.64	12.14
Exceeds LST?	no	no	no	no
Building Construction 2021	18.7492	17.6706	1.0251	0.9625
1.50 Acre LST	98	600	36.64	12.14
Exceeds LST?	no	no	no	no
Building Construction 2022	16.7670	17.4392	0.8645	0.8122
1.50 Acre LST	98	600	36.64	12.14
Exceeds LST?	no	no	no	no
Building Construction 2022 and Architectural Coating	18.6450	19.8573	0.9735	0.9212
1.50 Acre LST	98	600	36.64	12.14
Exceeds LST?	no	no	no	no

<i>Architectural Coating</i>	<i>1.8780</i>	<i>2.4181</i>	<i>0.1090</i>	<i>0.1090</i>
<i>0.00 Acre LST</i>	<i>81</i>	<i>485</i>	<i>33.06</i>	<i>11.06</i>
<i>Exceeds LST?</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
<i>Paving 2022 and Architectural Coating</i>	<i>13.0029</i>	<i>16.9986</i>	<i>0.6769</i>	<i>0.6315</i>
<i>0.00 Acre LST</i>	<i>81</i>	<i>485</i>	<i>33.06</i>	<i>11.06</i>
<i>Exceeds LST?</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
<i>Paving 2022</i>	<i>11.1249</i>	<i>14.5805</i>	<i>0.5679</i>	<i>0.5225</i>
<i>0.00 Acre LST</i>	<i>81</i>	<i>485</i>	<i>33.06</i>	<i>11.06</i>
<i>Exceeds LST?</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
<i>Paving 2023</i>	<i>10.1917</i>	<i>14.5842</i>	<i>0.5102</i>	<i>0.4694</i>
<i>0.00 Acre LST</i>	<i>81</i>	<i>485</i>	<i>33.06</i>	<i>11.06</i>
<i>Exceeds LST?</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>

**NOx and CO LSTs based on 82 ft receptor (employees of nearby shops), PM10 and PM2.5 LSTs based on 380 ft receptor (residences) as employees would not be onsite 24hrs/day

Regional Operation Emissions Worksheet: Combined Buildout Year 2023¹

¹ CalEEMod, Version 2016.3.2

Existing-2023

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	0.8179	2.90E-04	0.0314	0	1.10E-04	1.10E-04
Energy	4.63E-03	0.0421	0.0353	2.50E-04	3.20E-03	3.20E-03
Mobile	0.0848	0.3039	1.2929	5.32E-03	0.5113	0.139
Total	0.9073	0.3463	1.3596	5.57E-03	0.5146	0.1424

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	0.8179	2.90E-04	0.0314	0	1.10E-04	1.10E-04
Energy	4.63E-03	0.0421	0.0353	2.50E-04	3.20E-03	3.20E-03
Mobile	0.0832	0.3142	1.2222	5.09E-03	0.5113	0.1391
Total	0.9057	0.3566	1.2889	5.34E-03	0.5146	0.1424

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	0.818	0.000	0.031	0.000	0.000	0.000
Energy	0.005	0.042	0.035	0.000	0.003	0.003
Mobile	0.085	0.314	1.293	0.005	0.511	0.139
Total	0.907	0.357	1.360	0.006	0.515	0.142

Proposed Operations

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	4.8559	2.0171	10.3081	0.0127	0.2068	0.2068
Energy	0.06	0.5124	0.218	3.27E-03	0.0414	0.0414
Mobile	1.2097	1.6211	16.6402	0.0586	6.7271	1.8119
Total	6.1256	4.1505	27.1663	0.0746	6.9753	2.0601

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	4.8559	2.0171	10.3081	0.0127	0.2068	0.2068
Energy	0.06	0.5124	0.218	3.27E-03	0.0414	0.0414
Mobile	1.1834	1.7266	15.744	0.0556	6.7272	1.812
Total	6.0993	4.2561	26.2701	0.0715	6.9754	2.0602

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	4.86	2.02	10.31	0.01	0.21	0.21
Energy	0.06	0.51	0.22	0.00	0.04	0.04
Mobile	1.21	1.73	16.64	0.06	6.73	1.81
Total	6.13	4.26	27.17	0.07	6.98	2.06

Net Change in Emissions	5.218	3.900	25.807	0.069	6.461	1.918
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Regional Thresholds (lb/day)	55	55	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

GHG Emissions Inventory

Existing Conditions 2019

Operation*

Existing Conditions		
Area	0	MTCO ₂ e/Year**
Energy	118	MTCO ₂ e/Year
Mobile	72	MTCO ₂ e/Year
Solid Waste	15	MTCO ₂ e/Year
Water	78	MTCO ₂ e/Year
Total	282	MTCO₂e/Year

Proposed Project Buildout 2023

Construction

	<u>MTCO₂e Total Project*</u>
2020	652
2021	710
2022	601
2023	27
Total Construction	1,990

*CalEEMod, Version 2016.3.2.

Operation*

Proposed Combined		
Area	30	MTCO ₂ e/Year**
Energy	513	MTCO ₂ e/Year
Mobile	834	MTCO ₂ e/Year
Solid Waste	129	MTCO ₂ e/Year
Water	210	MTCO ₂ e/Year
Amortized Construction Emissions***	66	MTCO ₂ e/Year
Total	1,783	MTCO₂e/Year
Net Emissions	1,501	
SCAQMD Bright-Line Screening Threshold	3,000	MTCO ₂ e/Year
Exceed Threshold?	No	

*CalEEMod, Version 2016.3.2.

** MTCO₂e=metric tons of carbon dioxide equivalent.

*** Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2009, November 19. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 14. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2).

CalEEMod Inputs - Lincoln at Euclid Residential Development, Construction

Name: Lincoln at Euclid Residential Development
Project Number: CDA-73
Project Location: northeastern corner of Lincoln Ave and Euclid St
County: Orange County
Source Receptor Area (SRA): 17- Central Orange County
Climate Zone: 8
Land Use Setting: Urban
Operational Year: 2023
Utility Company: Southern California Edison
Air Basin: South Coast Air Basin
Air District: South Coast Air Quality Management District (SCAQMD)

Project Site Acreage: 7.05
 Disturbed Site Acreage: 7.05 Includes roadway improvements

Project Components	SQFT	Acres	
Demolition			
Existing Industrial Building	32,100		
Asphalt Demo	82,253		
Offsite Asphalt Demc	1,509		
New Construction			
Plan 1	21,000	0.16	Floors 3
Plan 1X	21,900	0.17	3
Plan 2	80,868	0.62	3
Plan 3	74,100	0.57	3
TOTAL BUILDING	197,988	1.514	
Parking Lot	15,544	0.36	
Total Other Asphalt Surfaces	44,510	1.02	
Total Hardscape		0.00	
Total Landscape		1.69	
		3.07	

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Residential Housing	Condo/Townhouse	197,988	1000 sqft	1.51	197,988
Parking	Surface Parking	15,544	1000 sqft	0.36	15,544
Parking ²	Other Asphalt Surfaces	44,510	1000 sqft	1.02	44,510
Parking	Other Non-asphalt Surfaces	1,690	acres	1.69	73,616
Additional Area ³	Other Non-asphalt Surfaces	2,467	acres	2.47	107,472
				7.05	

Demolition	Component	Amount to be Demolished (Tons)	Haul Truck Capacity (tons)	Haul Distance (miles)	Total Trip Ends	Trip Ends/ day	Total Days
	Building	1,476.6	20	20	148	7	20
	Asphalt	1,240.9	20	20	125	6	20
	Total	2,717.5			273		

Soil Haul¹

Construction Activities	Haul Truck Capacity (cy)	Import Volume (CY)	No. of total one-way import haul (trip ends)	No. of total one-way haul (trip ends/day)	Export Volume (CY)	No. of total one-way export haul (trip ends)	No. of total one-way haul (trip ends/day)	Total Days
Site Preparation	16	6469	809	27	0	0	0	30
Site Preparation and Grading Overlap	16	216	27	27	0	0	0	1
		6685	836					

Export Haul Travel Distance (1-Way): 20

Architectural Coating

Percentage of Proposed Buildings' Interior Painted: 100%
 Percentage of Proposed Buildings' Exterior Painted: 100%

Rule 1113

Interior Paint VOC content: 50 grams per liter
 Exterior Paing VOC content: 50 grams per liter

Residential Structures	Land Use Square Feet	CalEEMod Factor ²	Total Paintable Surface Area	Paintable Interior Area ²	Paintable Exterior Area ²
Residential Housing	197,988	2.7	534,568	400,926	133,642
			534,568	400,926	133,642
Parking Lot	15,544	6%	933	-	933
			933		933

¹CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

²The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

³100% of the interior and exterior of buildings to be modernized will be painted

Anaheim Public Utilities Carbon Intensity Factors

CO₂:^{1,2} 1,543.28 pounds per megawatt hour
 CH₄:³ 0.029 pound per megawatt hour
 N₂O:³ 0.00617 pound per megawatt hour

Construction Mitigation

SCAQMD Rule 403

Replace Ground Cover PM10: 5 % Reduction
 Replace Ground Cover PM2.5: 5 % Reduction

Water Exposed Area Frequency: 2 per day
 PM10: 55 % Reduction
 PM25: 55 % Reduction

Unpaved Roads Vehicle Speed: 15 mph

SCAQMD Rule 1186

Clean Paved Road 9 % PM Reduction

Construction Activities and Schedule Assumptions: Lincoln at Euclid Residential Development

* CalEEMod defaults based on info provided by applicant, normalized to fit duration provided by applicant

CalEEMod Defaults**Phase 1**

		Construction Schedule		
		Start Date	End Date	CalEEMod Duration (Workday)
Construction Activities	Phase Type			
Site Preparation	Site Preparation	3/13/2020	4/23/2020	30
Site Preparation and Grading	Grading	4/24/2020	4/24/2020	1
Demolition	Demolition	4/24/2020	5/21/2020	20
Grading	Grading	4/25/2020	7/10/2020	55
Building Construction	Building Construction	7/10/2020	10/28/2022	601
Architectural Coating	Architectural Coating	10/28/2022	12/16/2022	36
Paving	Paving	12/16/2022	2/3/2023	36

CalEEMod Construction Off-Road Equipment Inputs

**Based on data provided by applicant, assumed equipment would not be shared for most conservative results*

General Construction Hours: 8 hours

btwn 7:00 AM to 4:00 PM (with 1 hr break), Mon-Fri

Construction Equipment Details						
Equipment	model	# of Equipment	hr/day	hp	load factor*	total trips
Site Preparation						
Rubber Tired Dozers		3	8	247	0.4	
Crawler Tractor		4	8	212	0.4288	
Worker Trips						18
Vendor Trips						0
Hauling Trips						809
Water Trucks						2
Site Preparation and Grading Overlap						
Rubber Tired Dozers		3	8	247	0.4	
Crawler Tractor		4	8	212	0.43	
Excavators		2	8	158	0.38	
Scrapers		2	8	367	0.48	
Graders		1	8	187	0.41	
Worker Trips						30
Vendor Trips						0
Hauling Trips						27
Water Trucks						2
Demolition						
shares equipment with grading phase						
Worker Trips						0
Vendor Trips						0
Hauling Trips						273
Water Trucks						
Grading						
Excavators		2	8	158	0.38	
Scrapers		2	8	367	0.48	
Graders		1	8	187	0.41	
Rubber Tired Dozers		1	8	247	0.4	
Crawler Tractors		2	8	212	0.4288	
Worker Trips						20
Vendor Trips						0
Hauling Trips						0
Water Trucks						2
Building Construction						
Cranes		1	8	231	0.29	
Forklifts		3	8	89	0.2	
Generator Sets		1	8	84	0.74	
Tractors/Loaders/Backhoes		3	8	97	0.37	
Welders		1	8	46	0.45	
Worker Trips						184
Vendor Trips						52
Hauling Trips						0
Architectural Coating (surface lots, etc...)						
Air Compressors		1	8	78	0.48	
Worker Trips						37
Vendor Trips						0
Hauling Trips						0
Paving						
Pavers		2	8	130	0.42	
Paving Equipment		2	8	132	0.36	
Rollers		2	8	80	0.38	
Worker Trips						15
Vendor Trips						0
Hauling Trips						0

Construction Trips Worksheet

Phase Name	Worker Trip Ends Per	Vendor Trip Ends Per	Haul Truck Trip Ends	Total Haul Truck Trip	Start Date	End Date	Workdays
	Day	Day	Per Day	Ends			
Site Preparation	18	2	27	809	3/13/2020	4/23/2020	30
Site Preparation and Grading	30	2	27	27	4/24/2020	4/24/2020	1
Demolition	0	0	14	273	4/24/2020	5/21/2020	20
Grading	20	2	0	0	4/25/2020	7/10/2020	55
Building Construction	184	52	0	0	7/10/2020	10/28/2022	601
Architectural Coating	37	0	0	0	10/28/2022	12/16/2022	36
Paving	15	0	0	0	12/16/2022	2/3/2023	36

Construction Activity (Overlapping)	Worker Trip Ends Per	Vendor Trip Ends Per	Haul Truck Trip Ends	Total Trip Ends Per	Start Date	End Date	Workdays
	Day	Day	Per Day	Day			
Site Preparation	18	2	27	47	3/13/2020	4/23/2020	30
Site Preparation, Demolition, and Grading	30	2	41	73	4/24/2020	4/24/2020	1
Demolition and Grading	20	2	14	36	4/25/2020	5/21/2020	19
Grading	20	2	0	22	5/22/2020	7/9/2020	35
Grading and Building Construction	204	54	0	258	7/10/2020	7/10/2020	1
Building Construction	184	52	0	236	7/11/2020	12/31/2020	124
Building Construction and Architectural Coating	221	52	0	273	10/28/2022	10/28/2022	1
Architectural Coating	37	0	0	37	10/29/2022	12/15/2022	34
Paving and Architectural Coating	52	0	0	52	12/16/2022	12/16/2022	1
Paving	15	0	0	15	12/17/2022	12/31/2022	10
Maximum Daily Trips	221	54	41	273			

Demo Haul Trip Calculation

Conversion factors*

0.046 ton/SF
1.2641662 tons/cy
20 tons
15.82070459 CY
0.791035229 CY/ton

Building	BSF Demo	Tons/SF	Tons	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
Combined Building Demo	32,100	0.046	1476.6	16	20.00	74	148

*CalEEMod User's Guide Version 2016.3.2, Appendix A

Pavement Volume to Weight Conversion

Component	Total SF of Area ¹	Assumed Thickness (foot) ²	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf) ³	AC Mass (lbs)	AC Mass (tons)
Asphalt Demo	83,762	0.333	27,921	89	2,481,837	1240.92
Total	83,762					1,241

¹ Based on aerial image of existing project site.

² Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System, 1999.

³ <https://www.calrecycle.ca.gov/swfacilities/cdi/Tools/Calculations>

CalEEMod Inputs - Lincoln Avenue Residential Development, Existing Conditions

Name: Lincoln Avenue Residential Development
Project Number: COA-73
Project Location: northeastern corner of Lincoln Ave and Euclid St
County: Orange County
Source Receptor Area (SRA): 17- Central Orange County
Climate Zone: 8
Land Use Setting: Urban
Operational Year: 2023
Utility Company: Southern California Edison
Air Basin: South Coast Air Basin
Air District: South Coast Air Quality Management District (SCAQMD)

Project Site Acreage 7.05
 Disturbed Site Acreage 7.05 Includes roadway improvements

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Industrial	Warehouse	32.100	1000sqft	0.737	32,100
Parking Lot*	Parking	6.484	1000sqft	0.149	6,484
Other Asphalt Surfaces**	Parking	75.769	1000sqft	1.739	75,769
Other Nonasphalt Surfaces	Parking	192.745	1000sqft	4.425	192,745
				7.05	

*Google Earth estimate

** area reflects sqft for asphalt demo with parking area removed

Land Use Type	Average Daily Trips	CalEEMod Trip Rate	Saturday Trips	CalEEMod Trip Rate	Sunday Trips	CalEEMod Trip Rate
Warehouse	56	1.74	5	0.15	2	0.06

Source: LLG. 2019. Project Trip Generation Forecast
 ITE. 2017. Trip Generation Manual, 10th Edition.

Water Use

CalEEMod Defaults

Land Use	Indoor	Outdoor	Total (gal/yr)
Warehouse	7,423,125.00	0.00	7,423,125.00

*Assumes 100% aerobic treatment.

Solid Waste CalEEMod Defaults*

Land Use	Total Solid Waste (tons/yr)
Warehouse	30.17

Architectural Coating

Percentage of Proposed Buildings'

Interior Painted: 100%

Percentage of Proposed Buildings'

Exterior Painted: 100%

Rule 1113

Interior Paint VOC content: 100 grams per liter

Exterior Paing VOC content: 100 grams per liter

Residential Structures	Land Use Square Feet	CalEEMod Factor ²	Total Paintable Surface Area	Paintable Interior Area ¹	Paintable Exterior Area ¹
Warehouse	32,100	2.0	64,200	48,150	16,050
			64,200	48,150	16,050
Parking	6,484	6%	389	-	389
			389		389

¹CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

²The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

³100% of the interior and exterior of buildings to be modernized will be painted

Anaheim Public Utilities Carbon Intensity Factors

CO₂:^{1,2} 1,543.28 pounds per megawatt hour
 CH₄:³ 0.029 pound per megawatt hour
 N₂O:³ 0.00617 pound per megawatt hour

CalEEMod Inputs - Lincoln at Euclid Residential Development, Operations

Name: Lincoln at Euclid Residential Development
Project Number: COA-73
Project Location: northeastern corner of Lincoln Ave and Euclid St
County: Orange County
Source Receptor Area (SRA): 17- Central Orange County
Climate Zone: 8
Land Use Setting: Urban
Operational Year: 2023
Utility Company: Southern California Edison
Air Basin: South Coast Air Basin
Air District: South Coast Air Quality Management District (SCAQMD)

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Residential Housing	Condo/Townhouse	115	DU	1.514	197,988
Parking	Surface Parking	15,544	1000 sqft	0.357	15,544
Parking	Other Asphalt Surfaces	44,510	1000 sqft	1.022	44,510
Additional Area	Other Non-asphalt Surfaces	4,157	acres	4.157	181,088
				7.05	

Land Use Type	Average Daily Trips	CalEEMod Trip Rate	Saturday Trips	CalEEMod Trip Rate	Sunday Trips	CalEEMod Trip Rate
Condo/Townhouse	842	7.32	936	8.14	722	6.28

Source: LLG. 2019. Lincoln at Euclid Project Traffic Generation Forecase, Scenario No. 2

Fireplaces

**assuming no woodstoves*

Land Use	# Wood	# Gas	# Propane	Hours/Day	Days/Year	BTU/hr/fireplace	KBTU
Condo/Townhouse	0	115	0	3	25	60,000.00	517,500.00

Water Use

CalEEMod Inputs

Land Use	gallons/day	gallons/year
Indoor	50,697	18,504,405
Outdoor	24,725	9,024,625
Total:	75,422	27,529,030

Source: PlaceWorks. 2019. Lincoln at Euclid Initial Study: Utilities and Service Systems.

*Assumes 100% aerobic treatment.

Solid Waste CalEEMod Defaults*

Land Use	Generation Rate (lbs/DU/day)	Total Solid Waste (lbs/day)	Total Solid Waste (tons/yr)
	12.230	1,406.45	256.68

* Based on PlaceWorks utilities study (12.23 lb/DU/day)

Architectural Coating

see Construction Assumptions

Electricity (Buildings)

Modeling is conservative because the carbon intensity of electricity does not account for additional reductions from the 33% RPS and 50% RPS under SB 350.

Buildings constructed after January 1, 2020 are required to meet the 2019 Building and Energy Efficiency Standards. The 2019 Standards are 30% more energy efficient for non-residential buildings and 7% more energy efficient for single family residential buildings than the 2016 Building and Energy Efficiency Standards.

Non-Residential Exceed Title 24	0%	Improvement over 2016
---------------------------------	----	-----------------------

Sources:

1 California Energy Commission (CEC). 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. Accessed on April 3, 2019. http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

*Residential improvement over 2016 is for single-family homes only.

*Multi-family of 4 stories and higher are treated as non-residential for the Building and Energy Efficiency Standards.

Anaheim Public Utilities Carbon Intensity Factors

CO ₂ : ^{1,2}	1,543.28	pounds per megawatt hour
CH ₄ : ³	0.029	pound per megawatt hour
N ₂ O: ³	0.00617	pound per megawatt hour

Changes to the CalEEMod Defaults - Fleet Mix 2023

Average Daily Trips: 871

Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix	0.546501	0.044961	0.204016	0.120355	0.01574	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876	100%
Trips	476	39	178	105	14	5	18	27	2	2	4	1	1	871
Percent	0.80			0.12		0.08								
Proportion	0.682597	0.056158	0.254823	1.000000	0.199180	0.078407	0.254745	0.388211	0.031826	0.027852	0.006423	0.008694	0.011085	
Assumed Mix	0.97			0.02		0.01						100%		
adjusted with														
Assumed	0.662119	0.054473	0.247178	0.020000	0.001992	0.000784	0.002547	0.003882	0.000318	0.000279	0.006230	0.000087	0.000111	100%
Trips	577	47	215	17	2	1	2	3	0	0	5	0	0	871
Calibrated for														
zero heavy-duty														
trucks	0.662119	0.054473	0.247178	0.020000	0.001992	0.000784	0.002547	0.003882	0	0	0.006230	0.000087	0.000111	99.9%
Modified	0.662515	0.054506	0.247325	0.020012	0.001993	0.000785	0.002549	0.003884	0	0	0.006234	0.000087	0.000111	100.0%
Trips	577	47	215	17	2	1	2	3	0	0	5	0	0	871
Assumed Mix	97%			2%		1%								100%

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles than the regional VMT. Assumes a mix of approximately 98% passenger vehicles, 2% medium duty trucks, and 0% heavy duty trucks and buses.

Lincoln at Euclid Development Construction Run - Orange County, Summer

Lincoln at Euclid Development Construction Run Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.51	1000sqft	1.02	44,510.00	0
Other Non-Asphalt Surfaces	4.16	Acre	4.16	181,078.92	0
Parking Lot	15.54	1000sqft	0.36	15,544.00	0
Condo/Townhouse	115.00	Dwelling Unit	1.51	197,988.00	329

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	504.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE 2018 Sustainability Report

Land Use - 3 floors to all residential units

Construction Phase - project schedule provided by applicant, demo included within grading

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment - Demolition shares equipment with grading

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment -

Off-road Equipment - equipment mix from applicant

Off-road Equipment - Site prep and grading overlapped equipment mix

Trips and VMT - 2 V per water truck per day, see assumptions file for hauling trip calculations

Demolition -

Grading -

Architectural Coating - covers area for parking sqft only

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	14,468.00	933.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	230.00	601.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	10.00	30.00
tblGrading	MaterialImported	0.00	216.00
tblGrading	MaterialImported	0.00	6,469.00
tblLandUse	LandUseSquareFeet	181,209.60	181,078.92
tblLandUse	LandUseSquareFeet	15,540.00	15,544.00
tblLandUse	LandUseSquareFeet	115,000.00	197,988.00
tblLandUse	LotAcreage	7.19	1.51
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblTripsAndVMT	HaulingTripNumber	269.00	273.00
tblTripsAndVMT	HaulingTripNumber	640.00	809.00
tblTripsAndVMT	HaulingTripNumber	21.00	27.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

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	17.2314	193.7990	107.1037	0.2648	36.7722	4.1797	43.8915	15.0823	3.8467	22.3526	0.0000	26,133.6523	26,133.6523	6.6081	0.0000	26,298.8540
2021	2.8256	24.0294	24.5823	0.0610	2.3889	1.0486	3.4375	0.6411	0.9844	1.6255	0.0000	6,069.8020	6,069.8020	0.8262	0.0000	6,090.4559
2022	37.5046	23.6975	27.3996	0.0679	2.8025	0.9980	3.8005	0.7507	0.9441	1.6948	0.0000	6,735.5843	6,735.5843	0.8469	0.0000	6,756.7568
2023	1.1816	10.2186	14.9808	0.0243	0.1677	0.5112	0.6789	0.0445	0.4704	0.5148	0.0000	2,353.7216	2,353.7216	0.7168	0.0000	2,371.6406
Maximum	37.5046	193.7990	107.1037	0.2648	36.7722	4.1797	43.8915	15.0823	3.8467	22.3526	0.0000	26,133.6523	26,133.6523	6.6081	0.0000	26,298.8540

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	17.2314	193.7990	107.1037	0.2648	17.1084	4.1797	24.9841	6.9137	3.8467	14.1840	0.0000	26,133.6523	26,133.6523	6.6081	0.0000	26,298.8540
2021	2.8256	24.0294	24.5823	0.0610	2.2067	1.0486	3.2552	0.5963	0.9844	1.5807	0.0000	6,069.8020	6,069.8020	0.8262	0.0000	6,090.4559
2022	37.5046	23.6975	27.3996	0.0679	2.5879	0.9980	3.5858	0.6980	0.9441	1.6421	0.0000	6,735.5843	6,735.5843	0.8469	0.0000	6,756.7568
2023	1.1816	10.2186	14.9808	0.0243	0.1546	0.5112	0.6658	0.0413	0.4704	0.5116	0.0000	2,353.7216	2,353.7216	0.7168	0.0000	2,371.6406
Maximum	37.5046	193.7990	107.1037	0.2648	17.1084	4.1797	24.9841	6.9137	3.8467	14.1840	0.0000	26,133.6523	26,133.6523	6.6081	0.0000	26,298.8540

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.65	0.00	37.29	50.06	0.00	31.58	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	Site Preparation	Site Preparation	3/13/2020	4/23/2020	5	30	a
2	Site Preparation and Grading	Grading	4/24/2020	4/24/2020	5	1	b
3	Demolition	Demolition	4/24/2020	5/21/2020	5	20	c
4	Grading	Grading	4/25/2020	7/10/2020	5	55	d
5	Building Construction	Building Construction	7/10/2020	10/28/2022	5	601	e
6	Architectural Coating	Architectural Coating	10/28/2022	12/16/2022	5	36	f
7	Paving	Paving	12/16/2022	2/3/2023	5	36	g

Acres of Grading (Site Preparation Phase): 60

Acres of Grading (Grading Phase): 192.5

Acres of Paving: 5.54

Residential Indoor: 400,926; Residential Outdoor: 133,642; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation and Grading	Crawler Tractors	4	8.00	212	0.43
Site Preparation and Grading	Excavators	2	8.00	158	0.38
Site Preparation and Grading	Graders	1	8.00	187	0.41
Site Preparation and Grading	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation and Grading	Scrapers	2	8.00	367	0.48
Site Preparation and Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	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	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	809.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	273.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation and Grading	12	30.00	2.00	27.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	184.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	37.00	0.00	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

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.1873	0.0000	20.1873	10.1597	0.0000	10.1597			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645		5,523.5812	5,523.5812	1.7864		5,568.2421
Total	5.5539	63.7874	22.3947	0.0570	20.1873	2.7875	22.9748	10.1597	2.5645	12.7242		5,523.5812	5,523.5812	1.7864		5,568.2421

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2036	7.4150	1.8736	0.0206	0.4695	0.0240	0.4935	0.1285	0.0230	0.1515		2,300.4128	2,300.4128	0.2385		2,306.3742
Vendor	6.3900e-003	0.2084	0.0550	5.0000e-004	0.0128	1.0900e-003	0.0139	3.6800e-003	1.0400e-003	4.7200e-003		54.2258	54.2258	4.3900e-003		54.3354
Worker	0.0692	0.0436	0.5892	1.9700e-003	0.2012	1.3300e-003	0.2025	0.0534	1.2300e-003	0.0546		196.2079	196.2079	4.4700e-003		196.3197
Total	0.2792	7.6669	2.5178	0.0231	0.6835	0.0264	0.7099	0.1856	0.0252	0.2108		2,550.8464	2,550.8464	0.2473		2,557.0293

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					8.6301	0.0000	8.6301	4.3433	0.0000	4.3433			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645	0.0000	5,523.5812	5,523.5812	1.7864		5,568.2421
Total	5.5539	63.7874	22.3947	0.0570	8.6301	2.7875	11.4176	4.3433	2.5645	6.9078	0.0000	5,523.5812	5,523.5812	1.7864		5,568.2421

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2036	7.4150	1.8736	0.0206	0.4375	0.0240	0.4615	0.1207	0.0230	0.1436		2,300.4128	2,300.4128	0.2385		2,306.3742
Vendor	6.3900e-003	0.2084	0.0550	5.0000e-004	0.0120	1.0900e-003	0.0130	3.4800e-003	1.0400e-003	4.5200e-003		54.2258	54.2258	4.3900e-003		54.3354
Worker	0.0692	0.0436	0.5892	1.9700e-003	0.1855	1.3300e-003	0.1868	0.0495	1.2300e-003	0.0507		196.2079	196.2079	4.4700e-003		196.3197
Total	0.2792	7.6669	2.5178	0.0231	0.6349	0.0264	0.6613	0.1736	0.0252	0.1989		2,550.8464	2,550.8464	0.2473		2,557.0293

3.3 Site Preparation and 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					22.8385	0.0000	22.8385	10.4460	0.0000	10.4460			0.0000			0.0000
Off-Road	8.5055	98.4424	45.6620	0.1043		4.1402	4.1402		3.8090	3.8090		10,100.5669	10,100.5669	3.2667		10,182.2351
Total	8.5055	98.4424	45.6620	0.1043	22.8385	4.1402	26.9787	10.4460	3.8090	14.2550		10,100.5669	10,100.5669	3.2667		10,182.2351

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	0.2039	7.4242	1.8759	0.0207	0.4701	0.0240	0.4942	0.1287	0.0230	0.1517		2,303.2563	2,303.2563	0.2388		2,309.2251
Vendor	6.3900e-003	0.2084	0.0550	5.0000e-004	0.0128	1.0900e-003	0.0139	3.6800e-003	1.0400e-003	4.7200e-003		54.2258	54.2258	4.3900e-003		54.3354
Worker	0.1153	0.0726	0.9820	3.2800e-003	0.3353	2.2200e-003	0.3376	0.0889	2.0400e-003	0.0910		327.0131	327.0131	7.4500e-003		327.1995
Total	0.3256	7.7052	2.9129	0.0245	0.8182	0.0274	0.8456	0.2213	0.0261	0.2474		2,684.4952	2,684.4952	0.2506		2,690.7599

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					9.7635	0.0000	9.7635	4.4657	0.0000	4.4657			0.0000			0.0000
Off-Road	8.5055	98.4424	45.6620	0.1043		4.1402	4.1402		3.8090	3.8090	0.0000	10,100.5669	10,100.5669	3.2667		10,182.2351
Total	8.5055	98.4424	45.6620	0.1043	9.7635	4.1402	13.9037	4.4657	3.8090	8.2746	0.0000	10,100.5669	10,100.5669	3.2667		10,182.2351

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	0.2039	7.4242	1.8759	0.0207	0.4380	0.0240	0.4620	0.1208	0.0230	0.1438		2,303.2563	2,303.2563	0.2388		2,309.2251
Vendor	6.3900e-003	0.2084	0.0550	5.0000e-004	0.0120	1.0900e-003	0.0130	3.4800e-003	1.0400e-003	4.5200e-003		54.2258	54.2258	4.3900e-003		54.3354
Worker	0.1153	0.0726	0.9820	3.2800e-003	0.3091	2.2200e-003	0.3113	0.0825	2.0400e-003	0.0845		327.0131	327.0131	7.4500e-003		327.1995
Total	0.3256	7.7052	2.9129	0.0245	0.7590	0.0274	0.7864	0.2068	0.0261	0.2329		2,684.4952	2,684.4952	0.2506		2,690.7599

3.4 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					2.9076	0.0000	2.9076	0.4402	0.0000	0.4402			0.0000			0.0000
Off-Road	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	0.0000	0.0000	0.0000	0.0000	2.9076	0.0000	2.9076	0.4402	0.0000	0.4402		0.0000	0.0000	0.0000		0.0000

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	0.1031	3.7533	0.9484	0.0105	0.2377	0.0122	0.2498	0.0651	0.0116	0.0767		1,164.4240	1,164.4240	0.1207		1,167.4416
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	0.0000	0.0000	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	0.1031	3.7533	0.9484	0.0105	0.2377	0.0122	0.2498	0.0651	0.0116	0.0767		1,164.4240	1,164.4240	0.1207		1,167.4416

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					1.2430	0.0000	1.2430	0.1882	0.0000	0.1882			0.0000			0.0000
Off-Road	0.0000	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	0.0000	0.0000	0.0000	0.0000	1.2430	0.0000	1.2430	0.1882	0.0000	0.1882	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.1031	3.7533	0.9484	0.0105	0.2214	0.0122	0.2336	0.0611	0.0116	0.0727		1,164.4240	1,164.4240	0.1207		1,167.4416
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	0.0000	0.0000	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	0.1031	3.7533	0.9484	0.0105	0.2214	0.0122	0.2336	0.0611	0.0116	0.0727		1,164.4240	1,164.4240	0.1207		1,167.4416

3.5 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					9.7338	0.0000	9.7338	3.7110	0.0000	3.7110			0.0000			0.0000
Off-Road	5.1888	60.8826	32.3988	0.0715		2.4690	2.4690		2.2714	2.2714		6,925.1051	6,925.1051	2.2397		6,981.0981
Total	5.1888	60.8826	32.3988	0.0715	9.7338	2.4690	12.2028	3.7110	2.2714	5.9825		6,925.1051	6,925.1051	2.2397		6,981.0981

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	6.3900e-003	0.2084	0.0550	5.0000e-004	0.0128	1.0900e-003	0.0139	3.6800e-003	1.0400e-003	4.7200e-003		54.2258	54.2258	4.3900e-003		54.3354
Worker	0.0769	0.0484	0.6547	2.1900e-003	0.2236	1.4800e-003	0.2250	0.0593	1.3600e-003	0.0607		218.0087	218.0087	4.9700e-003		218.1330
Total	0.0833	0.2568	0.7096	2.6900e-003	0.2363	2.5700e-003	0.2389	0.0630	2.4000e-003	0.0654		272.2345	272.2345	9.3600e-003		272.4684

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1612	0.0000	4.1612	1.5865	0.0000	1.5865			0.0000			0.0000
Off-Road	5.1888	60.8826	32.3988	0.0715		2.4690	2.4690		2.2714	2.2714	0.0000	6,925.1051	6,925.1051	2.2397		6,981.0981
Total	5.1888	60.8826	32.3988	0.0715	4.1612	2.4690	6.6302	1.5865	2.2714	3.8579	0.0000	6,925.1051	6,925.1051	2.2397		6,981.0981

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	6.3900e-003	0.2084	0.0550	5.0000e-004	0.0120	1.0900e-003	0.0130	3.4800e-003	1.0400e-003	4.5200e-003		54.2258	54.2258	4.3900e-003		54.3354
Worker	0.0769	0.0484	0.6547	2.1900e-003	0.2061	1.4800e-003	0.2075	0.0550	1.3600e-003	0.0564		218.0087	218.0087	4.9700e-003		218.1330
Total	0.0833	0.2568	0.7096	2.6900e-003	0.2180	2.5700e-003	0.2206	0.0585	2.4000e-003	0.0609		272.2345	272.2345	9.3600e-003		272.4684

3.6 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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481

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	0.1661	5.4172	1.4298	0.0130	0.3322	0.0283	0.3605	0.0956	0.0270	0.1227		1,409.8705	1,409.8705	0.1140		1,412.7212
Worker	0.7071	0.4455	6.0228	0.0201	2.0567	0.0136	2.0703	0.5454	0.0125	0.5580		2,005.6802	2,005.6802	0.0457		2,006.8233
Total	0.8732	5.8627	7.4526	0.0331	2.3889	0.0419	2.4308	0.6411	0.0396	0.6806		3,415.5507	3,415.5507	0.1598		3,419.5444

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481

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	0.1661	5.4172	1.4298	0.0130	0.3109	0.0283	0.3392	0.0904	0.0270	0.1174		1,409.8705	1,409.8705	0.1140		1,412.7212
Worker	0.7071	0.4455	6.0228	0.0201	1.8958	0.0136	1.9094	0.5059	0.0125	0.5185		2,005.6802	2,005.6802	0.0457		2,006.8233
Total	0.8732	5.8627	7.4526	0.0331	2.2067	0.0419	2.2485	0.5963	0.0396	0.6359		3,415.5507	3,415.5507	0.1598		3,419.5444

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212

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	0.1388	4.8783	1.3230	0.0128	0.3322	0.0101	0.3424	0.0956	9.6900e-003	0.1053		1,397.7210	1,397.7210	0.1096		1,400.4610
Worker	0.6641	0.4018	5.5886	0.0194	2.0567	0.0133	2.0700	0.5454	0.0123	0.5577		1,936.0372	1,936.0372	0.0415		1,937.0737
Total	0.8029	5.2802	6.9116	0.0322	2.3889	0.0234	2.4124	0.6411	0.0220	0.6630		3,333.7583	3,333.7583	0.1511		3,337.5347

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	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212

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	0.1388	4.8783	1.3230	0.0128	0.3109	0.0101	0.3210	0.0904	9.6900e-003	0.1001		1,397.7210	1,397.7210	0.1096		1,400.4610
Worker	0.6641	0.4018	5.5886	0.0194	1.8958	0.0133	1.9091	0.5059	0.0123	0.5182		1,936.0372	1,936.0372	0.0415		1,937.0737
Total	0.8029	5.2802	6.9116	0.0322	2.2067	0.0234	2.2301	0.5963	0.0220	0.6183		3,333.7583	3,333.7583	0.1511		3,337.5347

3.6 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	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122		2,737.1520	2,737.1520	0.6711		2,753.9288
Total	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122		2,737.1520	2,737.1520	0.6711		2,753.9288

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	0.1305	4.6153	1.2775	0.0127	0.3322	8.8200e-003	0.3410	0.0956	8.4300e-003	0.1040		1,383.9936	1,383.9936	0.1062		1,386.6478
Worker	0.6277	0.3641	5.2160	0.0187	2.0567	0.0131	2.0697	0.5454	0.0120	0.5575		1,864.2903	1,864.2903	0.0377		1,865.2316
Total	0.7581	4.9793	6.4935	0.0314	2.3889	0.0219	2.4108	0.6410	0.0205	0.6615		3,248.2838	3,248.2838	0.1438		3,251.8794

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	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122	0.0000	2,737.1520	2,737.1520	0.6711		2,753.9288
Total	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122	0.0000	2,737.1520	2,737.1520	0.6711		2,753.9288

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	0.1305	4.6153	1.2775	0.0127	0.3109	8.8200e-003	0.3197	0.0904	8.4300e-003	0.0988		1,383.9936	1,383.9936	0.1062		1,386.6478
Worker	0.6277	0.3641	5.2160	0.0187	1.8958	0.0131	1.9088	0.5059	0.0120	0.5180		1,864.2903	1,864.2903	0.0377		1,865.2316
Total	0.7581	4.9793	6.4935	0.0314	2.2066	0.0219	2.2285	0.5963	0.0205	0.6168		3,248.2838	3,248.2838	0.1438		3,251.8794

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	34.5329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090		375.2641	375.2641	0.0244		375.8749
Total	34.8057	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090		375.2641	375.2641	0.0244		375.8749

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	0.1262	0.0732	1.0489	3.7600e-003	0.4136	2.6300e-003	0.4162	0.1097	2.4200e-003	0.1121		374.8845	374.8845	7.5700e-003		375.0738
Total	0.1262	0.0732	1.0489	3.7600e-003	0.4136	2.6300e-003	0.4162	0.1097	2.4200e-003	0.1121		374.8845	374.8845	7.5700e-003		375.0738

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	34.5329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	0.0000	375.2641	375.2641	0.0244		375.8749
Total	34.8057	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	0.0000	375.2641	375.2641	0.0244		375.8749

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	0.1262	0.0732	1.0489	3.7600e-003	0.3812	2.6300e-003	0.3838	0.1017	2.4200e-003	0.1042		374.8845	374.8845	7.5700e-003		375.0738
Total	0.1262	0.0732	1.0489	3.7600e-003	0.3812	2.6300e-003	0.3838	0.1017	2.4200e-003	0.1042		374.8845	374.8845	7.5700e-003		375.0738

3.8 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	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2033	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

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	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569

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	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2033	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

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	0.0512	0.0297	0.4252	1.5200e-003	0.1546	1.0600e-003	0.1556	0.0413	9.8000e-004	0.0422		151.9802	151.9802	3.0700e-003		152.0569
Total	0.0512	0.0297	0.4252	1.5200e-003	0.1546	1.0600e-003	0.1556	0.0413	9.8000e-004	0.0422		151.9802	151.9802	3.0700e-003		152.0569

3.8 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1332	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0485	0.0270	0.3966	1.4600e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454		146.1374	146.1374	2.7800e-003		146.2070
Total	0.0485	0.0270	0.3966	1.4600e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454		146.1374	146.1374	2.7800e-003		146.2070

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1332	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0485	0.0270	0.3966	1.4600e-003	0.1546	1.0500e-003	0.1556	0.0413	9.6000e-004	0.0422		146.1374	146.1374	2.7800e-003		146.2070
Total	0.0485	0.0270	0.3966	1.4600e-003	0.1546	1.0500e-003	0.1556	0.0413	9.6000e-004	0.0422		146.1374	146.1374	2.7800e-003		146.2070

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Lincoln at Euclid Development Construction Run - Orange County, Winter

Lincoln at Euclid Development Construction Run Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.51	1000sqft	1.02	44,510.00	0
Other Non-Asphalt Surfaces	4.16	Acre	4.16	181,078.92	0
Parking Lot	15.54	1000sqft	0.36	15,544.00	0
Condo/Townhouse	115.00	Dwelling Unit	1.51	197,988.00	329

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	504.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE 2018 Sustainability Report

Land Use - 3 floors to all residential units

Construction Phase - project schedule provided by applicant, demo included within grading

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment - Demolition shares equipment with grading

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment -

Off-road Equipment - equipment mix from applicant

Off-road Equipment - Site prep and grading overlapped equipment mix

Trips and VMT - 2 V per water truck per day, see assumptions file for hauling trip calculations

Demolition -

Grading -

Architectural Coating - covers area for parking sqft only

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	14,468.00	933.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	230.00	601.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	10.00	30.00
tblGrading	MaterialImported	0.00	216.00
tblGrading	MaterialImported	0.00	6,469.00
tblLandUse	LandUseSquareFeet	181,209.60	181,078.92
tblLandUse	LandUseSquareFeet	15,540.00	15,544.00
tblLandUse	LandUseSquareFeet	115,000.00	197,988.00
tblLandUse	LotAcreage	7.19	1.51
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblTripsAndVMT	HaulingTripNumber	269.00	273.00
tblTripsAndVMT	HaulingTripNumber	640.00	809.00
tblTripsAndVMT	HaulingTripNumber	21.00	27.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

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	17.3614	193.9466	106.7708	0.2627	36.7722	4.1804	43.8925	15.0823	3.8474	22.3535	0.0000	25,924.8610	25,924.8610	6.6169	0.0000	26,090.2828
2021	2.9203	24.0576	24.2790	0.0597	2.3889	1.0490	3.4379	0.6411	0.9848	1.6258	0.0000	5,931.7578	5,931.7578	0.8293	0.0000	5,952.4901
2022	37.6130	23.7266	27.0288	0.0664	2.8025	0.9983	3.8008	0.7507	0.9444	1.6951	0.0000	6,581.6234	6,581.6234	0.8494	0.0000	6,602.8589
2023	1.1883	10.2213	14.9490	0.0242	0.1677	0.5112	0.6789	0.0445	0.4704	0.5148	0.0000	2,345.9079	2,345.9079	0.7166	0.0000	2,363.8231
Maximum	37.6130	193.9466	106.7708	0.2627	36.7722	4.1804	43.8925	15.0823	3.8474	22.3535	0.0000	25,924.8610	25,924.8610	6.6169	0.0000	26,090.2828

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	17.3614	193.9466	106.7708	0.2627	17.1084	4.1804	24.9851	6.9137	3.8474	14.1849	0.0000	25,924.86	25,924.861	6.6169	0.0000	26,090.28
2021	2.9203	24.0576	24.2790	0.0597	2.2067	1.0490	3.2556	0.5963	0.9848	1.5811	0.0000	5,931.7578	5,931.7578	0.8293	0.0000	5,952.4901
2022	37.6130	23.7266	27.0288	0.0664	2.5879	0.9983	3.5862	0.6980	0.9444	1.6424	0.0000	6,581.6234	6,581.6234	0.8494	0.0000	6,602.8589
2023	1.1883	10.2213	14.9490	0.0242	0.1546	0.5112	0.6658	0.0413	0.4704	0.5116	0.0000	2,345.9079	2,345.9079	0.7166	0.0000	2,363.8231
Maximum	37.6130	193.9466	106.7708	0.2627	17.1084	4.1804	24.9851	6.9137	3.8474	14.1849	0.0000	25,924.8610	25,924.8610	6.6169	0.0000	26,090.2828

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.65	0.00	37.29	50.06	0.00	31.58	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	Site Preparation	Site Preparation	3/13/2020	4/23/2020	5	30	a
2	Site Preparation and Grading	Grading	4/24/2020	4/24/2020	5	1	b
3	Demolition	Demolition	4/24/2020	5/21/2020	5	20	c
4	Grading	Grading	4/25/2020	7/10/2020	5	55	d
5	Building Construction	Building Construction	7/10/2020	10/28/2022	5	601	e
6	Architectural Coating	Architectural Coating	10/28/2022	12/16/2022	5	36	f
7	Paving	Paving	12/16/2022	2/3/2023	5	36	g

Acres of Grading (Site Preparation Phase): 60

Acres of Grading (Grading Phase): 192.5

Acres of Paving: 5.54

Residential Indoor: 400,926; Residential Outdoor: 133,642; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation and Grading	Crawler Tractors	4	8.00	212	0.43
Site Preparation and Grading	Excavators	2	8.00	158	0.38
Site Preparation and Grading	Graders	1	8.00	187	0.41
Site Preparation and Grading	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation and Grading	Scrapers	2	8.00	367	0.48
Site Preparation and Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	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	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	809.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	273.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation and Grading	12	30.00	2.00	27.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	184.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	37.00	0.00	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

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.1873	0.0000	20.1873	10.1597	0.0000	10.1597			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645		5,523.5812	5,523.5812	1.7864		5,568.2421
Total	5.5539	63.7874	22.3947	0.0570	20.1873	2.7875	22.9748	10.1597	2.5645	12.7242		5,523.5812	5,523.5812	1.7864		5,568.2421

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2087	7.5084	1.9727	0.0203	0.4695	0.0245	0.4940	0.1285	0.0234	0.1519		2,265.6852	2,265.6852	0.2441		2,271.7883
Vendor	6.6700e-003	0.2083	0.0603	4.9000e-004	0.0128	1.1100e-003	0.0139	3.6800e-003	1.0600e-003	4.7400e-003		52.8932	52.8932	4.6100e-003		53.0084
Worker	0.0782	0.0479	0.5446	1.8600e-003	0.2012	1.3300e-003	0.2025	0.0534	1.2300e-003	0.0546		185.6918	185.6918	4.2400e-003		185.7977
Total	0.2935	7.7645	2.5775	0.0227	0.6835	0.0269	0.7104	0.1856	0.0257	0.2113		2,504.2702	2,504.2702	0.2530		2,510.5944

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					8.6301	0.0000	8.6301	4.3433	0.0000	4.3433			0.0000			0.0000
Off-Road	5.5539	63.7874	22.3947	0.0570		2.7875	2.7875		2.5645	2.5645	0.0000	5,523.5812	5,523.5812	1.7864		5,568.2421
Total	5.5539	63.7874	22.3947	0.0570	8.6301	2.7875	11.4176	4.3433	2.5645	6.9078	0.0000	5,523.5812	5,523.5812	1.7864		5,568.2421

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2087	7.5084	1.9727	0.0203	0.4375	0.0245	0.4619	0.1207	0.0234	0.1441		2,265.6852	2,265.6852	0.2441		2,271.7883
Vendor	6.6700e-003	0.2083	0.0603	4.9000e-004	0.0120	1.1100e-003	0.0131	3.4800e-003	1.0600e-003	4.5300e-003		52.8932	52.8932	4.6100e-003		53.0084
Worker	0.0782	0.0479	0.5446	1.8600e-003	0.1855	1.3300e-003	0.1868	0.0495	1.2300e-003	0.0507		185.6918	185.6918	4.2400e-003		185.7977
Total	0.2935	7.7645	2.5775	0.0227	0.6349	0.0269	0.6618	0.1736	0.0257	0.1993		2,504.2702	2,504.2702	0.2530		2,510.5944

3.3 Site Preparation and 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					22.8385	0.0000	22.8385	10.4460	0.0000	10.4460			0.0000			0.0000
Off-Road	8.5055	98.4424	45.6620	0.1043		4.1402	4.1402		3.8090	3.8090		10,100.5669	10,100.5669	3.2667		10,182.2351
Total	8.5055	98.4424	45.6620	0.1043	22.8385	4.1402	26.9787	10.4460	3.8090	14.2550		10,100.5669	10,100.5669	3.2667		10,182.2351

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	0.2090	7.5176	1.9751	0.0204	0.4701	0.0245	0.4946	0.1287	0.0234	0.1521		2,268.4858	2,268.4858	0.2444		2,274.5964
Vendor	6.6700e-003	0.2083	0.0603	4.9000e-004	0.0128	1.1100e-003	0.0139	3.6800e-003	1.0600e-003	4.7400e-003		52.8932	52.8932	4.6100e-003		53.0084
Worker	0.1303	0.0798	0.9076	3.1000e-003	0.3353	2.2200e-003	0.3376	0.0889	2.0400e-003	0.0910		309.4863	309.4863	7.0600e-003		309.6629
Total	0.3459	7.8057	2.9430	0.0239	0.8182	0.0278	0.8460	0.2213	0.0265	0.2478		2,630.8653	2,630.8653	0.2561		2,637.2677

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					9.7635	0.0000	9.7635	4.4657	0.0000	4.4657			0.0000			0.0000
Off-Road	8.5055	98.4424	45.6620	0.1043		4.1402	4.1402		3.8090	3.8090	0.0000	10,100.5669	10,100.5669	3.2667		10,182.2351
Total	8.5055	98.4424	45.6620	0.1043	9.7635	4.1402	13.9037	4.4657	3.8090	8.2746	0.0000	10,100.5669	10,100.5669	3.2667		10,182.2351

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	0.2090	7.5176	1.9751	0.0204	0.4380	0.0245	0.4625	0.1208	0.0234	0.1442		2,268.4858	2,268.4858	0.2444		2,274.5964
Vendor	6.6700e-003	0.2083	0.0603	4.9000e-004	0.0120	1.1100e-003	0.0131	3.4800e-003	1.0600e-003	4.5300e-003		52.8932	52.8932	4.6100e-003		53.0084
Worker	0.1303	0.0798	0.9076	3.1000e-003	0.3091	2.2200e-003	0.3113	0.0825	2.0400e-003	0.0845		309.4863	309.4863	7.0600e-003		309.6629
Total	0.3459	7.8057	2.9430	0.0239	0.7590	0.0278	0.7868	0.2068	0.0265	0.2333		2,630.8653	2,630.8653	0.2561		2,637.2677

3.4 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					2.9076	0.0000	2.9076	0.4402	0.0000	0.4402			0.0000			0.0000
Off-Road	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	0.0000	0.0000	0.0000	0.0000	2.9076	0.0000	2.9076	0.4402	0.0000	0.4402		0.0000	0.0000	0.0000		0.0000

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	0.1056	3.8006	0.9985	0.0103	0.2377	0.0124	0.2500	0.0651	0.0118	0.0769		1,146.8456	1,146.8456	0.1236		1,149.9349
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	0.0000	0.0000	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	0.1056	3.8006	0.9985	0.0103	0.2377	0.0124	0.2500	0.0651	0.0118	0.0769		1,146.8456	1,146.8456	0.1236		1,149.9349

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					1.2430	0.0000	1.2430	0.1882	0.0000	0.1882			0.0000			0.0000
Off-Road	0.0000	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	0.0000	0.0000	0.0000	0.0000	1.2430	0.0000	1.2430	0.1882	0.0000	0.1882	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.1056	3.8006	0.9985	0.0103	0.2214	0.0124	0.2338	0.0611	0.0118	0.0729		1,146.8456	1,146.8456	0.1236		1,149.9349
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	0.0000	0.0000	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	0.1056	3.8006	0.9985	0.0103	0.2214	0.0124	0.2338	0.0611	0.0118	0.0729		1,146.8456	1,146.8456	0.1236		1,149.9349

3.5 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					9.7338	0.0000	9.7338	3.7110	0.0000	3.7110			0.0000			0.0000
Off-Road	5.1888	60.8826	32.3988	0.0715		2.4690	2.4690		2.2714	2.2714		6,925.1051	6,925.1051	2.2397		6,981.0981
Total	5.1888	60.8826	32.3988	0.0715	9.7338	2.4690	12.2028	3.7110	2.2714	5.9825		6,925.1051	6,925.1051	2.2397		6,981.0981

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	6.6700e-003	0.2083	0.0603	4.9000e-004	0.0128	1.1100e-003	0.0139	3.6800e-003	1.0600e-003	4.7400e-003		52.8932	52.8932	4.6100e-003		53.0084
Worker	0.0869	0.0532	0.6051	2.0700e-003	0.2236	1.4800e-003	0.2250	0.0593	1.3600e-003	0.0607		206.3242	206.3242	4.7100e-003		206.4419
Total	0.0935	0.2615	0.6654	2.5600e-003	0.2363	2.5900e-003	0.2389	0.0630	2.4200e-003	0.0654		259.2174	259.2174	9.3200e-003		259.4503

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1612	0.0000	4.1612	1.5865	0.0000	1.5865			0.0000			0.0000
Off-Road	5.1888	60.8826	32.3988	0.0715		2.4690	2.4690		2.2714	2.2714	0.0000	6,925.1051	6,925.1051	2.2397		6,981.0981
Total	5.1888	60.8826	32.3988	0.0715	4.1612	2.4690	6.6302	1.5865	2.2714	3.8579	0.0000	6,925.1051	6,925.1051	2.2397		6,981.0981

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	6.6700e-003	0.2083	0.0603	4.9000e-004	0.0120	1.1100e-003	0.0131	3.4800e-003	1.0600e-003	4.5300e-003		52.8932	52.8932	4.6100e-003		53.0084
Worker	0.0869	0.0532	0.6051	2.0700e-003	0.2061	1.4800e-003	0.2075	0.0550	1.3600e-003	0.0564		206.3242	206.3242	4.7100e-003		206.4419
Total	0.0935	0.2615	0.6654	2.5600e-003	0.2180	2.5900e-003	0.2206	0.0585	2.4200e-003	0.0609		259.2174	259.2174	9.3200e-003		259.4503

3.6 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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218		2,735.6999	2,735.6999	0.6819		2,752.7481

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	0.1735	5.4154	1.5672	0.0126	0.3322	0.0288	0.3610	0.0956	0.0275	0.1231		1,375.2234	1,375.2234	0.1198		1,378.2180
Worker	0.7991	0.4896	5.5667	0.0190	2.0567	0.0136	2.0703	0.5454	0.0125	0.5580		1,898.1829	1,898.1829	0.0433		1,899.2656
Total	0.9725	5.9050	7.1339	0.0317	2.3889	0.0424	2.4313	0.6411	0.0400	0.6811		3,273.4063	3,273.4063	0.1631		3,277.4836

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481
Total	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218	0.0000	2,735.6999	2,735.6999	0.6819		2,752.7481

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	0.1735	5.4154	1.5672	0.0126	0.3109	0.0288	0.3397	0.0904	0.0275	0.1179		1,375.2234	1,375.2234	0.1198		1,378.2180
Worker	0.7991	0.4896	5.5667	0.0190	1.8958	0.0136	1.9094	0.5059	0.0125	0.5185		1,898.1829	1,898.1829	0.0433		1,899.2656
Total	0.9725	5.9050	7.1339	0.0317	2.2067	0.0424	2.2490	0.5963	0.0400	0.6363		3,273.4063	3,273.4063	0.1631		3,277.4836

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625		2,736.0438	2,736.0438	0.6751		2,752.9212

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	0.1457	4.8668	1.4515	0.0125	0.3322	0.0105	0.3428	0.0956	0.0101	0.1057		1,363.3828	1,363.3828	0.1150		1,366.2568
Worker	0.7519	0.4416	5.1569	0.0184	2.0567	0.0133	2.0700	0.5454	0.0123	0.5577		1,832.3312	1,832.3312	0.0392		1,833.3122
Total	0.8976	5.3084	6.6084	0.0309	2.3889	0.0238	2.4128	0.6411	0.0223	0.6634		3,195.7140	3,195.7140	0.1542		3,199.5689

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	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212
Total	2.0228	18.7492	17.6706	0.0288		1.0251	1.0251		0.9625	0.9625	0.0000	2,736.0438	2,736.0438	0.6751		2,752.9212

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	0.1457	4.8668	1.4515	0.0125	0.3109	0.0105	0.3214	0.0904	0.0101	0.1004		1,363.3828	1,363.3828	0.1150		1,366.2568
Worker	0.7519	0.4416	5.1569	0.0184	1.8958	0.0133	1.9091	0.5059	0.0123	0.5182		1,832.3312	1,832.3312	0.0392		1,833.3122
Total	0.8976	5.3084	6.6084	0.0309	2.2067	0.0238	2.2305	0.5963	0.0223	0.6186		3,195.7140	3,195.7140	0.1542		3,199.5689

3.6 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	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122		2,737.1520	2,737.1520	0.6711		2,753.9288
Total	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122		2,737.1520	2,737.1520	0.6711		2,753.9288

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	0.1370	4.6012	1.3995	0.0124	0.3322	9.1500e-003	0.3414	0.0956	8.7500e-003	0.1044		1,349.8643	1,349.8643	0.1112		1,352.6430
Worker	0.7125	0.4000	4.8057	0.0177	2.0567	0.0131	2.0697	0.5454	0.0120	0.5575		1,764.5210	1,764.5210	0.0356		1,765.4111
Total	0.8494	5.0012	6.2052	0.0301	2.3889	0.0222	2.4111	0.6410	0.0208	0.6618		3,114.3853	3,114.3853	0.1468		3,118.0541

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	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122	0.0000	2,737.1520	2,737.1520	0.6711		2,753.9288
Total	1.8146	16.7670	17.4392	0.0288		0.8645	0.8645		0.8122	0.8122	0.0000	2,737.1520	2,737.1520	0.6711		2,753.9288

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	0.1370	4.6012	1.3995	0.0124	0.3109	9.1500e-003	0.3200	0.0904	8.7500e-003	0.0991		1,349.8643	1,349.8643	0.1112		1,352.6430
Worker	0.7125	0.4000	4.8057	0.0177	1.8958	0.0131	1.9088	0.5059	0.0120	0.5180		1,764.5210	1,764.5210	0.0356		1,765.4111
Total	0.8494	5.0012	6.2052	0.0301	2.2066	0.0222	2.2289	0.5963	0.0208	0.6171		3,114.3853	3,114.3853	0.1468		3,118.0541

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	34.5329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090		375.2641	375.2641	0.0244		375.8749
Total	34.8057	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090		375.2641	375.2641	0.0244		375.8749

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	0.1433	0.0804	0.9664	3.5600e-003	0.4136	2.6300e-003	0.4162	0.1097	2.4200e-003	0.1121		354.8222	354.8222	7.1600e-003		355.0012
Total	0.1433	0.0804	0.9664	3.5600e-003	0.4136	2.6300e-003	0.4162	0.1097	2.4200e-003	0.1121		354.8222	354.8222	7.1600e-003		355.0012

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	34.5329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	0.0000	375.2641	375.2641	0.0244		375.8749
Total	34.8057	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	0.0000	375.2641	375.2641	0.0244		375.8749

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	0.1433	0.0804	0.9664	3.5600e-003	0.3812	2.6300e-003	0.3838	0.1017	2.4200e-003	0.1042		354.8222	354.8222	7.1600e-003		355.0012
Total	0.1433	0.0804	0.9664	3.5600e-003	0.3812	2.6300e-003	0.3838	0.1017	2.4200e-003	0.1042		354.8222	354.8222	7.1600e-003		355.0012

3.8 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	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2033	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

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	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194

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	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2033	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

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	0.0581	0.0326	0.3918	1.4400e-003	0.1546	1.0600e-003	0.1556	0.0413	9.8000e-004	0.0422		143.8468	143.8468	2.9000e-003		143.9194
Total	0.0581	0.0326	0.3918	1.4400e-003	0.1546	1.0600e-003	0.1556	0.0413	9.8000e-004	0.0422		143.8468	143.8468	2.9000e-003		143.9194

3.8 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1332	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0552	0.0296	0.3648	1.3900e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454		138.3238	138.3238	2.6300e-003		138.3895
Total	0.0552	0.0296	0.3648	1.3900e-003	0.1677	1.0500e-003	0.1687	0.0445	9.6000e-004	0.0454		138.3238	138.3238	2.6300e-003		138.3895

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1332	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0552	0.0296	0.3648	1.3900e-003	0.1546	1.0500e-003	0.1556	0.0413	9.6000e-004	0.0422		138.3238	138.3238	2.6300e-003		138.3895
Total	0.0552	0.0296	0.3648	1.3900e-003	0.1546	1.0500e-003	0.1556	0.0413	9.6000e-004	0.0422		138.3238	138.3238	2.6300e-003		138.3895

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Lincoln at Euclid Development Construction Run - Orange County, Annual

Lincoln at Euclid Development Construction Run Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.51	1000sqft	1.02	44,510.00	0
Other Non-Asphalt Surfaces	4.16	Acre	4.16	181,078.92	0
Parking Lot	15.54	1000sqft	0.36	15,544.00	0
Condo/Townhouse	115.00	Dwelling Unit	1.51	197,988.00	329

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	504.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE 2018 Sustainability Report

Land Use - 3 floors to all residential units

Construction Phase - project schedule provided by applicant, demo included within grading

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment - Demolition shares equipment with grading

Off-road Equipment - equipment mix provided by applicant

Off-road Equipment -

Off-road Equipment - equipment mix from applicant

Off-road Equipment - Site prep and grading overlapped equipment mix

Trips and VMT - 2 V per water truck per day, see assumptions file for hauling trip calculations

Demolition -

Grading -

Architectural Coating - covers area for parking sqft only

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	14,468.00	933.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	230.00	601.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	10.00	30.00
tblGrading	MaterialImported	0.00	216.00
tblGrading	MaterialImported	0.00	6,469.00
tblLandUse	LandUseSquareFeet	181,209.60	181,078.92
tblLandUse	LandUseSquareFeet	15,540.00	15,544.00
tblLandUse	LandUseSquareFeet	115,000.00	197,988.00
tblLandUse	LotAcreage	7.19	1.51
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblTripsAndVMT	HaulingTripNumber	269.00	273.00
tblTripsAndVMT	HaulingTripNumber	640.00	809.00
tblTripsAndVMT	HaulingTripNumber	21.00	27.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

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	0.4344	4.5157	2.8907	7.2100e-003	0.7769	0.1897	0.9666	0.3087	0.1760	0.4847	0.0000	648.6700	648.6700	0.1343	0.0000	652.0271
2021	0.3705	3.1524	3.1771	7.8500e-003	0.3063	0.1369	0.4432	0.0823	0.1285	0.2108	0.0000	707.9147	707.9147	0.0979	0.0000	710.3621
2022	0.9137	2.4466	2.6922	6.6500e-003	0.2606	0.1004	0.3610	0.0700	0.0944	0.1644	0.0000	598.9635	598.9635	0.0836	0.0000	601.0543
2023	0.0148	0.1278	0.1870	3.0000e-004	2.0600e-003	6.3900e-003	8.4500e-003	5.5000e-004	5.8800e-003	6.4300e-003	0.0000	26.6260	26.6260	8.1300e-003	0.0000	26.8292
Maximum	0.9137	4.5157	3.1771	7.8500e-003	0.7769	0.1897	0.9666	0.3087	0.1760	0.4847	0.0000	707.9147	707.9147	0.1343	0.0000	710.3621

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	0.4344	4.5157	2.8907	7.2100e-003	0.4146	0.1897	0.6043	0.1544	0.1760	0.3305	0.0000	648.6695	648.6695	0.1343	0.0000	652.0266
2021	0.3705	3.1524	3.1771	7.8500e-003	0.2830	0.1369	0.4199	0.0766	0.1285	0.2051	0.0000	707.9143	707.9143	0.0979	0.0000	710.3617
2022	0.9137	2.4466	2.6922	6.6500e-003	0.2407	0.1004	0.3412	0.0651	0.0944	0.1595	0.0000	598.9631	598.9631	0.0836	0.0000	601.0540
2023	0.0148	0.1278	0.1870	3.0000e-004	1.9000e-003	6.3900e-003	8.2900e-003	5.1000e-004	5.8800e-003	6.3900e-003	0.0000	26.6260	26.6260	8.1300e-003	0.0000	26.8292
Maximum	0.9137	4.5157	3.1771	7.8500e-003	0.4146	0.1897	0.6043	0.1544	0.1760	0.3305	0.0000	707.9143	707.9143	0.1343	0.0000	710.3617

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	30.14	0.00	22.80	35.72	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	3-13-2020	6-12-2020	6.1395	6.1395
2	6-13-2020	9-12-2020	2.5020	2.5020
3	9-13-2020	12-12-2020	0.9670	0.9670
4	12-13-2020	3-12-2021	0.8862	0.8862
5	3-13-2021	6-12-2021	0.8832	0.8832
6	6-13-2021	9-12-2021	0.8824	0.8824
7	9-13-2021	12-12-2021	0.8760	0.8760
8	12-13-2021	3-12-2022	0.8026	0.8026
9	3-13-2022	6-12-2022	0.7998	0.7998
10	6-13-2022	9-12-2022	0.7991	0.7991
11	9-13-2022	12-12-2022	1.0070	1.0070
12	12-13-2022	3-12-2023	0.2622	0.2622
		Highest	6.1395	6.1395

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/13/2020	4/23/2020	5	30	a
2	Site Preparation and Grading	Grading	4/24/2020	4/24/2020	5	1	b
3	Demolition	Demolition	4/24/2020	5/21/2020	5	20	c
4	Grading	Grading	4/25/2020	7/10/2020	5	55	d
5	Building Construction	Building Construction	7/10/2020	10/28/2022	5	601	e
6	Architectural Coating	Architectural Coating	10/28/2022	12/16/2022	5	36	f
7	Paving	Paving	12/16/2022	2/3/2023	5	36	g

Acres of Grading (Site Preparation Phase): 60

Acres of Grading (Grading Phase): 192.5

Acres of Paving: 5.54

Residential Indoor: 400,926; Residential Outdoor: 133,642; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation and Grading	Crawler Tractors	4	8.00	212	0.43
Site Preparation and Grading	Excavators	2	8.00	158	0.38
Site Preparation and Grading	Graders	1	8.00	187	0.41
Site Preparation and Grading	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation and Grading	Scrapers	2	8.00	367	0.48
Site Preparation and Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	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	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	809.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	273.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation and Grading	12	30.00	2.00	27.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	184.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	37.00	0.00	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

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3028	0.0000	0.3028	0.1524	0.0000	0.1524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0833	0.9568	0.3359	8.5000e-004		0.0418	0.0418		0.0385	0.0385	0.0000	75.1636	75.1636	0.0243	0.0000	75.7714
Total	0.0833	0.9568	0.3359	8.5000e-004	0.3028	0.0418	0.3446	0.1524	0.0385	0.1909	0.0000	75.1636	75.1636	0.0243	0.0000	75.7714

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	3.0900e-003	0.1148	0.0288	3.1000e-004	6.9300e-003	3.6000e-004	7.3000e-003	1.9000e-003	3.5000e-004	2.2500e-003	0.0000	31.1050	31.1050	3.2800e-003	0.0000	31.1870
Vendor	1.0000e-004	3.1800e-003	8.7000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7303	0.7303	6.0000e-005	0.0000	0.7318
Worker	1.0500e-003	7.4000e-004	8.3700e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.5654	2.5654	6.0000e-005	0.0000	2.5669
Total	4.2400e-003	0.1187	0.0380	3.5000e-004	0.0101	4.0000e-004	0.0105	2.7400e-003	3.9000e-004	3.1300e-003	0.0000	34.4007	34.4007	3.4000e-003	0.0000	34.4857

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					0.1295	0.0000	0.1295	0.0652	0.0000	0.0652	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0833	0.9568	0.3359	8.5000e-004		0.0418	0.0418		0.0385	0.0385	0.0000	75.1635	75.1635	0.0243	0.0000	75.7713
Total	0.0833	0.9568	0.3359	8.5000e-004	0.1295	0.0418	0.1713	0.0652	0.0385	0.1036	0.0000	75.1635	75.1635	0.0243	0.0000	75.7713

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	3.0900e-003	0.1148	0.0288	3.1000e-004	6.4600e-003	3.6000e-004	6.8200e-003	1.7900e-003	3.5000e-004	2.1300e-003	0.0000	31.1050	31.1050	3.2800e-003	0.0000	31.1870
Vendor	1.0000e-004	3.1800e-003	8.7000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7303	0.7303	6.0000e-005	0.0000	0.7318
Worker	1.0500e-003	7.4000e-004	8.3700e-003	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.5654	2.5654	6.0000e-005	0.0000	2.5669
Total	4.2400e-003	0.1187	0.0380	3.5000e-004	9.3700e-003	4.0000e-004	9.7600e-003	2.5700e-003	3.9000e-004	2.9500e-003	0.0000	34.4007	34.4007	3.4000e-003	0.0000	34.4857

3.3 Site Preparation and 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					0.0114	0.0000	0.0114	5.2200e-003	0.0000	5.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2500e-003	0.0492	0.0228	5.0000e-005		2.0700e-003	2.0700e-003		1.9000e-003	1.9000e-003	0.0000	4.5815	4.5815	1.4800e-003	0.0000	4.6186
Total	4.2500e-003	0.0492	0.0228	5.0000e-005	0.0114	2.0700e-003	0.0135	5.2200e-003	1.9000e-003	7.1200e-003	0.0000	4.5815	4.5815	1.4800e-003	0.0000	4.6186

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.8300e-003	9.6000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0381	1.0381	1.1000e-004	0.0000	1.0409
Vendor	0.0000	1.1000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0243	0.0243	0.0000	0.0000	0.0244
Worker	6.0000e-005	4.0000e-005	4.6000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1425	0.1425	0.0000	0.0000	0.1426
Total	1.6000e-004	3.9800e-003	1.4500e-003	1.0000e-005	4.0000e-004	1.0000e-005	4.2000e-004	1.0000e-004	1.0000e-005	1.2000e-004	0.0000	1.2050	1.2050	1.1000e-004	0.0000	1.2079

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8800e-003	0.0000	4.8800e-003	2.2300e-003	0.0000	2.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2500e-003	0.0492	0.0228	5.0000e-005		2.0700e-003	2.0700e-003		1.9000e-003	1.9000e-003	0.0000	4.5815	4.5815	1.4800e-003	0.0000	4.6186
Total	4.2500e-003	0.0492	0.0228	5.0000e-005	4.8800e-003	2.0700e-003	6.9500e-003	2.2300e-003	1.9000e-003	4.1300e-003	0.0000	4.5815	4.5815	1.4800e-003	0.0000	4.6186

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.8300e-003	9.6000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.3000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	1.0381	1.0381	1.1000e-004	0.0000	1.0409
Vendor	0.0000	1.1000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0243	0.0243	0.0000	0.0000	0.0244
Worker	6.0000e-005	4.0000e-005	4.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1425	0.1425	0.0000	0.0000	0.1426
Total	1.6000e-004	3.9800e-003	1.4500e-003	1.0000e-005	3.8000e-004	1.0000e-005	3.9000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.2050	1.2050	1.1000e-004	0.0000	1.2079

3.4 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					0.0291	0.0000	0.0291	4.4000e-003	0.0000	4.4000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0291	0.0000	0.0291	4.4000e-003	0.0000	4.4000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.0400e-003	0.0387	9.7000e-003	1.0000e-004	2.3400e-003	1.2000e-004	2.4600e-003	6.4000e-004	1.2000e-004	7.6000e-004	0.0000	10.4965	10.4965	1.1100e-003	0.0000	10.5242
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0400e-003	0.0387	9.7000e-003	1.0000e-004	2.3400e-003	1.2000e-004	2.4600e-003	6.4000e-004	1.2000e-004	7.6000e-004	0.0000	10.4965	10.4965	1.1100e-003	0.0000	10.5242

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					0.0124	0.0000	0.0124	1.8800e-003	0.0000	1.8800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0124	0.0000	0.0124	1.8800e-003	0.0000	1.8800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.0400e-003	0.0387	9.7000e-003	1.0000e-004	2.1800e-003	1.2000e-004	2.3000e-003	6.0000e-004	1.2000e-004	7.2000e-004	0.0000	10.4965	10.4965	1.1100e-003	0.0000	10.5242
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0400e-003	0.0387	9.7000e-003	1.0000e-004	2.1800e-003	1.2000e-004	2.3000e-003	6.0000e-004	1.2000e-004	7.2000e-004	0.0000	10.4965	10.4965	1.1100e-003	0.0000	10.5242

3.5 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					0.2677	0.0000	0.2677	0.1021	0.0000	0.1021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1427	1.6743	0.8910	1.9700e-003		0.0679	0.0679		0.0625	0.0625	0.0000	172.7646	172.7646	0.0559	0.0000	174.1615
Total	0.1427	1.6743	0.8910	1.9700e-003	0.2677	0.0679	0.3356	0.1021	0.0625	0.1645	0.0000	172.7646	172.7646	0.0559	0.0000	174.1615

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8000e-004	5.8300e-003	1.5900e-003	1.0000e-005	3.5000e-004	3.0000e-005	3.8000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.3388	1.3388	1.1000e-004	0.0000	1.3416
Worker	2.1400e-003	1.5000e-003	0.0171	6.0000e-005	6.0400e-003	4.0000e-005	6.0800e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	5.2259	5.2259	1.2000e-004	0.0000	5.2289
Total	2.3200e-003	7.3300e-003	0.0186	7.0000e-005	6.3900e-003	7.0000e-005	6.4600e-003	1.7000e-003	7.0000e-005	1.7700e-003	0.0000	6.5647	6.5647	2.3000e-004	0.0000	6.5705

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					0.1144	0.0000	0.1144	0.0436	0.0000	0.0436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1427	1.6743	0.8910	1.9700e-003		0.0679	0.0679		0.0625	0.0625	0.0000	172.7644	172.7644	0.0559	0.0000	174.1613
Total	0.1427	1.6743	0.8910	1.9700e-003	0.1144	0.0679	0.1823	0.0436	0.0625	0.1061	0.0000	172.7644	172.7644	0.0559	0.0000	174.1613

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8000e-004	5.8300e-003	1.5900e-003	1.0000e-005	3.2000e-004	3.0000e-005	3.5000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.3388	1.3388	1.1000e-004	0.0000	1.3416
Worker	2.1400e-003	1.5000e-003	0.0171	6.0000e-005	5.5700e-003	4.0000e-005	5.6100e-003	1.4900e-003	4.0000e-005	1.5300e-003	0.0000	5.2259	5.2259	1.2000e-004	0.0000	5.2289
Total	2.3200e-003	7.3300e-003	0.0186	7.0000e-005	5.8900e-003	7.0000e-005	5.9600e-003	1.5800e-003	7.0000e-005	1.6500e-003	0.0000	6.5647	6.5647	2.3000e-004	0.0000	6.5705

3.6 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	0.1409	1.2906	1.1230	1.8000e-003		0.0747	0.0747		0.0701	0.0701	0.0000	155.1116	155.1116	0.0387	0.0000	156.0782
Total	0.1409	1.2906	1.1230	1.8000e-003		0.0747	0.0747		0.0701	0.0701	0.0000	155.1116	155.1116	0.0387	0.0000	156.0782

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	0.0106	0.3447	0.0937	8.0000e-004	0.0205	1.7800e-003	0.0222	5.9000e-003	1.7000e-003	7.6000e-003	0.0000	79.1133	79.1133	6.6100e-003	0.0000	79.2785
Worker	0.0448	0.0314	0.3565	1.2100e-003	0.1263	8.5000e-004	0.1271	0.0335	7.8000e-004	0.0343	0.0000	109.2684	109.2684	2.4900e-003	0.0000	109.3308
Total	0.0554	0.3761	0.4502	2.0100e-003	0.1467	2.6300e-003	0.1493	0.0394	2.4800e-003	0.0419	0.0000	188.3817	188.3817	9.1000e-003	0.0000	188.6093

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1409	1.2906	1.1230	1.8000e-003		0.0747	0.0747		0.0701	0.0701	0.0000	155.1114	155.1114	0.0387	0.0000	156.0780
Total	0.1409	1.2906	1.1230	1.8000e-003		0.0747	0.0747		0.0701	0.0701	0.0000	155.1114	155.1114	0.0387	0.0000	156.0780

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	0.0106	0.3447	0.0937	8.0000e-004	0.0192	1.7800e-003	0.0209	5.5800e-003	1.7000e-003	7.2800e-003	0.0000	79.1133	79.1133	6.6100e-003	0.0000	79.2785
Worker	0.0448	0.0314	0.3565	1.2100e-003	0.1164	8.5000e-004	0.1173	0.0311	7.8000e-004	0.0319	0.0000	109.2684	109.2684	2.4900e-003	0.0000	109.3308
Total	0.0554	0.3761	0.4502	2.0100e-003	0.1356	2.6300e-003	0.1382	0.0367	2.4800e-003	0.0392	0.0000	188.3817	188.3817	9.1000e-003	0.0000	188.6093

3.6 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	0.2640	2.4468	2.3060	3.7600e-003		0.1338	0.1338		0.1256	0.1256	0.0000	323.9137	323.9137	0.0799	0.0000	325.9118
Total	0.2640	2.4468	2.3060	3.7600e-003		0.1338	0.1338		0.1256	0.1256	0.0000	323.9137	323.9137	0.0799	0.0000	325.9118

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	0.0185	0.6465	0.1812	1.6600e-003	0.0427	1.3400e-003	0.0441	0.0123	1.2800e-003	0.0136	0.0000	163.7655	163.7655	0.0133	0.0000	164.0969
Worker	0.0880	0.0591	0.6898	2.4300e-003	0.2636	1.7400e-003	0.2653	0.0700	1.6000e-003	0.0716	0.0000	220.2355	220.2355	4.7200e-003	0.0000	220.3535
Total	0.1065	0.7057	0.8710	4.0900e-003	0.3063	3.0800e-003	0.3094	0.0823	2.8800e-003	0.0852	0.0000	384.0010	384.0010	0.0180	0.0000	384.4504

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	0.2640	2.4468	2.3060	3.7600e-003		0.1338	0.1338		0.1256	0.1256	0.0000	323.9133	323.9133	0.0799	0.0000	325.9114
Total	0.2640	2.4468	2.3060	3.7600e-003		0.1338	0.1338		0.1256	0.1256	0.0000	323.9133	323.9133	0.0799	0.0000	325.9114

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	0.0185	0.6465	0.1812	1.6600e-003	0.0400	1.3400e-003	0.0413	0.0117	1.2800e-003	0.0129	0.0000	163.7655	163.7655	0.0133	0.0000	164.0969
Worker	0.0880	0.0591	0.6898	2.4300e-003	0.2430	1.7400e-003	0.2448	0.0650	1.6000e-003	0.0666	0.0000	220.2355	220.2355	4.7200e-003	0.0000	220.3535
Total	0.1065	0.7057	0.8710	4.0900e-003	0.2830	3.0800e-003	0.2861	0.0766	2.8800e-003	0.0795	0.0000	384.0010	384.0010	0.0180	0.0000	384.4504

3.6 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	0.1951	1.8025	1.8747	3.1000e-003		0.0929	0.0929		0.0873	0.0873	0.0000	266.9335	266.9335	0.0654	0.0000	268.5696
Total	0.1951	1.8025	1.8747	3.1000e-003		0.0929	0.0929		0.0873	0.0873	0.0000	266.9335	266.9335	0.0654	0.0000	268.5696

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	0.0143	0.5033	0.1440	1.3500e-003	0.0352	9.6000e-004	0.0362	0.0102	9.2000e-004	0.0111	0.0000	133.5724	133.5724	0.0106	0.0000	133.8366
Worker	0.0686	0.0441	0.5297	1.9300e-003	0.2171	1.4000e-003	0.2186	0.0577	1.2900e-003	0.0590	0.0000	174.7036	174.7036	3.5300e-003	0.0000	174.7917
Total	0.0829	0.5475	0.6738	3.2800e-003	0.2523	2.3600e-003	0.2547	0.0678	2.2100e-003	0.0700	0.0000	308.2760	308.2760	0.0141	0.0000	308.6284

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	0.1951	1.8025	1.8747	3.1000e-003		0.0929	0.0929		0.0873	0.0873	0.0000	266.9332	266.9332	0.0654	0.0000	268.5693
Total	0.1951	1.8025	1.8747	3.1000e-003		0.0929	0.0929		0.0873	0.0873	0.0000	266.9332	266.9332	0.0654	0.0000	268.5693

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	0.0143	0.5033	0.1440	1.3500e-003	0.0329	9.6000e-004	0.0339	9.6000e-003	9.2000e-004	0.0105	0.0000	133.5724	133.5724	0.0106	0.0000	133.8366
Worker	0.0686	0.0441	0.5297	1.9300e-003	0.2002	1.4000e-003	0.2016	0.0535	1.2900e-003	0.0548	0.0000	174.7036	174.7036	3.5300e-003	0.0000	174.7917
Total	0.0829	0.5475	0.6738	3.2800e-003	0.2331	2.3600e-003	0.2355	0.0631	2.2100e-003	0.0653	0.0000	308.2760	308.2760	0.0141	0.0000	308.6284

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	0.6216					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9100e-003	0.0338	0.0435	7.0000e-005		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	6.1278	6.1278	4.0000e-004	0.0000	6.1378
Total	0.6265	0.0338	0.0435	7.0000e-005		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	6.1278	6.1278	4.0000e-004	0.0000	6.1378

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3100e-003	1.4900e-003	0.0178	7.0000e-005	7.3100e-003	5.0000e-005	7.3600e-003	1.9400e-003	4.0000e-005	1.9900e-003	0.0000	5.8823	5.8823	1.2000e-004	0.0000	5.8853
Total	2.3100e-003	1.4900e-003	0.0178	7.0000e-005	7.3100e-003	5.0000e-005	7.3600e-003	1.9400e-003	4.0000e-005	1.9900e-003	0.0000	5.8823	5.8823	1.2000e-004	0.0000	5.8853

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	0.6216					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9100e-003	0.0338	0.0435	7.0000e-005		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	6.1278	6.1278	4.0000e-004	0.0000	6.1378
Total	0.6265	0.0338	0.0435	7.0000e-005		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	6.1278	6.1278	4.0000e-004	0.0000	6.1378

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3100e-003	1.4900e-003	0.0178	7.0000e-005	6.7400e-003	5.0000e-005	6.7900e-003	1.8000e-003	4.0000e-005	1.8500e-003	0.0000	5.8823	5.8823	1.2000e-004	0.0000	5.8853
Total	2.3100e-003	1.4900e-003	0.0178	7.0000e-005	6.7400e-003	5.0000e-005	6.7900e-003	1.8000e-003	4.0000e-005	1.8500e-003	0.0000	5.8823	5.8823	1.2000e-004	0.0000	5.8853

3.8 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	6.0700e-003	0.0612	0.0802	1.3000e-004		3.1200e-003	3.1200e-003		2.8700e-003	2.8700e-003	0.0000	11.0152	11.0152	3.5600e-003	0.0000	11.1042
Paving	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.6200e-003	0.0612	0.0802	1.3000e-004		3.1200e-003	3.1200e-003		2.8700e-003	2.8700e-003	0.0000	11.0152	11.0152	3.5600e-003	0.0000	11.1042

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.8000e-004	2.2100e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7287	0.7287	1.0000e-005	0.0000	0.7290
Total	2.9000e-004	1.8000e-004	2.2100e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7287	0.7287	1.0000e-005	0.0000	0.7290

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	6.0700e-003	0.0612	0.0802	1.3000e-004		3.1200e-003	3.1200e-003		2.8700e-003	2.8700e-003	0.0000	11.0151	11.0151	3.5600e-003	0.0000	11.1042
Paving	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.6200e-003	0.0612	0.0802	1.3000e-004		3.1200e-003	3.1200e-003		2.8700e-003	2.8700e-003	0.0000	11.0151	11.0151	3.5600e-003	0.0000	11.1042

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.8000e-004	2.2100e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7287	0.7287	1.0000e-005	0.0000	0.7290
Total	2.9000e-004	1.8000e-004	2.2100e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7287	0.7287	1.0000e-005	0.0000	0.7290

3.8 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0129	0.1274	0.1823	2.9000e-004		6.3800e-003	6.3800e-003		5.8700e-003	5.8700e-003	0.0000	25.0336	25.0336	8.1000e-003	0.0000	25.2360
Paving	1.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0142	0.1274	0.1823	2.9000e-004		6.3800e-003	6.3800e-003		5.8700e-003	5.8700e-003	0.0000	25.0336	25.0336	8.1000e-003	0.0000	25.2360

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	3.8000e-004	4.6800e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.5925	1.5925	3.0000e-005	0.0000	1.5932
Total	6.2000e-004	3.8000e-004	4.6800e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.5925	1.5925	3.0000e-005	0.0000	1.5932

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	0.0129	0.1274	0.1823	2.9000e-004		6.3800e-003	6.3800e-003		5.8700e-003	5.8700e-003	0.0000	25.0336	25.0336	8.1000e-003	0.0000	25.2360
Paving	1.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0142	0.1274	0.1823	2.9000e-004		6.3800e-003	6.3800e-003		5.8700e-003	5.8700e-003	0.0000	25.0336	25.0336	8.1000e-003	0.0000	25.2360

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	3.8000e-004	4.6800e-003	2.0000e-005	1.9000e-003	1.0000e-005	1.9100e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5925	1.5925	3.0000e-005	0.0000	1.5932
Total	6.2000e-004	3.8000e-004	4.6800e-003	2.0000e-005	1.9000e-003	1.0000e-005	1.9100e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5925	1.5925	3.0000e-005	0.0000	1.5932

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Lincoln at Euclid Development Construction Run
Orange County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation and Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	0	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Crawler Tractors	Diesel	No Change	0	10	No Change	0.00
Excavators	Diesel	No Change	0	4	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	7	No Change	0.00

Scrapers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	3	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	4.91000E-003	3.38000E-002	4.35300E-002	7.00000E-005	1.96000E-003	1.96000E-003	0.00000E+000	6.12781E+000	6.12781E+000	4.00000E-004	0.00000E+000	6.13778E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	1.22320E-001	1.41962E+000	5.94400E-001	1.73000E-003	5.82600E-002	5.36000E-002	0.00000E+000	1.52329E+002	1.52329E+002	4.92700E-002	0.00000E+000	1.53561E+002
Crawler Tractors	6.77300E-002	8.71380E-001	2.92500E-001	9.20000E-004	3.28400E-002	3.02100E-002	0.00000E+000	8.07081E+001	8.07081E+001	2.61000E-002	0.00000E+000	8.13607E+001
Excavators	1.37200E-002	1.35110E-001	1.83000E-001	2.90000E-004	6.54000E-003	6.02000E-003	0.00000E+000	2.54072E+001	2.54072E+001	8.22000E-003	0.00000E+000	2.56126E+001
Forklifts	1.14270E-001	1.04511E+000	1.05060E+000	1.38000E-003	7.34300E-002	6.75500E-002	0.00000E+000	1.21064E+002	1.21064E+002	3.91500E-002	0.00000E+000	1.22042E+002
Generator Sets	1.07060E-001	9.45380E-001	1.10762E+000	1.98000E-003	4.99500E-002	4.99500E-002	0.00000E+000	1.69845E+002	1.69845E+002	8.64000E-003	0.00000E+000	1.70061E+002
Graders	1.33200E-002	1.77120E-001	5.08000E-002	1.90000E-004	5.66000E-003	5.21000E-003	0.00000E+000	1.63258E+001	1.63258E+001	5.28000E-003	0.00000E+000	1.64578E+001
Pavers	7.07000E-003	7.01600E-002	1.03800E-001	1.70000E-004	3.31000E-003	3.05000E-003	0.00000E+000	1.48672E+001	1.48672E+001	4.81000E-003	0.00000E+000	1.49874E+001
Paving Equipment	6.23000E-003	5.91900E-002	9.19200E-002	1.50000E-004	2.88000E-003	2.65000E-003	0.00000E+000	1.28828E+001	1.28828E+001	4.17000E-003	0.00000E+000	1.29869E+001
Rollers	5.67000E-003	5.92400E-002	6.67700E-002	9.00000E-005	3.31000E-003	3.04000E-003	0.00000E+000	8.29878E+000	8.29878E+000	2.68000E-003	0.00000E+000	8.36587E+000
Rubber Tired Dozers	7.98800E-002	8.38590E-001	3.05740E-001	6.30000E-004	4.10700E-002	3.77800E-002	0.00000E+000	5.55409E+001	5.55409E+001	1.79600E-002	0.00000E+000	5.59900E+001
Scrapers	5.56000E-002	6.58120E-001	4.17680E-001	8.50000E-004	2.56700E-002	2.36100E-002	0.00000E+000	7.45278E+001	7.45278E+001	2.41000E-002	0.00000E+000	7.51304E+001
Tractors/Loaders/Backhoes	1.65720E-001	1.67732E+000	2.03406E+000	2.80000E-003	9.77800E-002	8.99600E-002	0.00000E+000	2.46161E+002	2.46161E+002	7.96100E-002	0.00000E+000	2.48151E+002
Welders	9.06300E-002	4.52380E-001	5.17050E-001	7.70000E-004	2.19700E-002	2.19700E-002	0.00000E+000	5.65603E+001	5.65603E+001	7.36000E-003	0.00000E+000	5.67443E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	4.91000E-003	3.38000E-002	4.35300E-002	7.00000E-005	1.96000E-003	1.96000E-003	0.00000E+000	6.12780E+000	6.12780E+000	4.00000E-004	0.00000E+000	6.13778E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	1.22320E-001	1.41962E+000	5.94400E-001	1.73000E-003	5.82600E-002	5.36000E-002	0.00000E+000	1.52329E+002	1.52329E+002	4.92700E-002	0.00000E+000	1.53561E+002
Crawler Tractors	6.77300E-002	8.71380E-001	2.92500E-001	9.20000E-004	3.28400E-002	3.02100E-002	0.00000E+000	8.07080E+001	8.07080E+001	2.61000E-002	0.00000E+000	8.13606E+001
Excavators	1.37200E-002	1.35110E-001	1.83000E-001	2.90000E-004	6.54000E-003	6.02000E-003	0.00000E+000	2.54072E+001	2.54072E+001	8.22000E-003	0.00000E+000	2.56126E+001
Forklifts	1.14270E-001	1.04511E+000	1.05059E+000	1.38000E-003	7.34300E-002	6.75500E-002	0.00000E+000	1.21063E+002	1.21063E+002	3.91500E-002	0.00000E+000	1.22042E+002
Generator Sets	1.07060E-001	9.45380E-001	1.10761E+000	1.98000E-003	4.99500E-002	4.99500E-002	0.00000E+000	1.69845E+002	1.69845E+002	8.64000E-003	0.00000E+000	1.70061E+002
Graders	1.33200E-002	1.77120E-001	5.08000E-002	1.90000E-004	5.66000E-003	5.21000E-003	0.00000E+000	1.63258E+001	1.63258E+001	5.28000E-003	0.00000E+000	1.64578E+001

Pavers	7.07000E-003	7.01600E-002	1.03800E-001	1.70000E-004	3.31000E-003	3.05000E-003	0.00000E+000	1.48672E+001	1.48672E+001	4.81000E-003	0.00000E+000	1.49874E+001
Paving Equipment	6.23000E-003	5.91900E-002	9.19200E-002	1.50000E-004	2.88000E-003	2.65000E-003	0.00000E+000	1.28828E+001	1.28828E+001	4.17000E-003	0.00000E+000	1.29869E+001
Rollers	5.67000E-003	5.92400E-002	6.67700E-002	9.00000E-005	3.31000E-003	3.04000E-003	0.00000E+000	8.29877E+000	8.29877E+000	2.68000E-003	0.00000E+000	8.36587E+000
Rubber Tired Dozers	7.98800E-002	8.38590E-001	3.05740E-001	6.30000E-004	4.10700E-002	3.77800E-002	0.00000E+000	5.55408E+001	5.55408E+001	1.79600E-002	0.00000E+000	5.59899E+001
Scrapers	5.56000E-002	6.58120E-001	4.17680E-001	8.50000E-004	2.56700E-002	2.36100E-002	0.00000E+000	7.45277E+001	7.45277E+001	2.41000E-002	0.00000E+000	7.51303E+001
Tractors/Loaders/Bac khoes	1.65720E-001	1.67731E+000	2.03406E+000	2.80000E-003	9.77800E-002	8.99600E-002	0.00000E+000	2.46161E+002	2.46161E+002	7.96100E-002	0.00000E+000	2.48151E+002
Welders	9.06300E-002	4.52380E-001	5.17040E-001	7.70000E-004	2.19700E-002	2.19700E-002	0.00000E+000	5.65602E+001	5.65602E+001	7.36000E-003	0.00000E+000	5.67442E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.63190E-006	1.63190E-006	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18165E-006	1.18165E-006	0.00000E+000	0.00000E+000	1.23730E-006
Crawler Tractors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11513E-006	1.11513E-006	0.00000E+000	0.00000E+000	1.22910E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18077E-006	1.18077E-006	0.00000E+000	0.00000E+000	1.17130E-006
Forklifts	0.00000E+000	0.00000E+000	9.51837E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23902E-006	1.23902E-006	0.00000E+000	0.00000E+000	1.22908E-006
Generator Sets	0.00000E+000	0.00000E+000	9.02837E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17755E-006	1.17755E-006	0.00000E+000	0.00000E+000	1.17605E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22505E-006	1.22505E-006	0.00000E+000	0.00000E+000	1.21523E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.34524E-006	1.34524E-006	0.00000E+000	0.00000E+000	1.33445E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.55246E-006	1.55246E-006	0.00000E+000	0.00000E+000	1.54001E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20500E-006	1.20500E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.08029E-006	1.08029E-006	0.00000E+000	0.00000E+000	1.25022E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20760E-006	1.20760E-006	0.00000E+000	0.00000E+000	1.19792E-006
Tractors/Loaders/Bac khoes	0.00000E+000	5.96189E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17809E-006	1.17809E-006	0.00000E+000	0.00000E+000	1.20894E-006
Welders	0.00000E+000	0.00000E+000	1.93405E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23762E-006	1.23762E-006	0.00000E+000	0.00000E+000	1.23360E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	5.00	PM2.5 Reduction	5.00
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00
				Frequency (per day)	2.00

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
Yes	Clean Paved Road	% PM Reduction	9.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.08	0.07
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.71	0.19	0.65	0.18	0.08	0.07
Demolition	Fugitive Dust	0.03	0.00	0.01	0.00	0.57	0.57
Demolition	Roads	0.00	0.00	0.00	0.00	0.07	0.06
Grading	Fugitive Dust	0.27	0.10	0.11	0.04	0.57	0.57
Grading	Roads	0.01	0.00	0.01	0.00	0.08	0.07
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.08	0.08
Site Preparation	Fugitive Dust	0.30	0.15	0.13	0.07	0.57	0.57
Site Preparation	Roads	0.01	0.00	0.01	0.00	0.07	0.06
Site Preparation and Grading	Fugitive Dust	0.01	0.01	0.00	0.00	0.57	0.57
Site Preparation and Grading	Roads	0.00	0.00	0.00	0.00	0.05	0.00

Lincoln Avenue Existing Conditions - Orange County, Summer

Lincoln Avenue Existing Conditions

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	32.10	1000sqft	0.74	32,100.00	0
Other Asphalt Surfaces	192.75	1000sqft	4.42	192,745.00	0
Other Non-Asphalt Surfaces	75.77	1000sqft	1.74	75,769.00	0
Parking Lot	6.48	1000sqft	0.15	6,484.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2018 SCE Sustainability Report

Land Use -

Construction Phase -

Vehicle Trips - ITE Trip Manual 10th Ed

Area Coating - see assump file

Energy Use - existing conditions

Water And Wastewater - assuming 100% aerobic treatment

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	16500	389
tblLandUse	LandUseSquareFeet	192,750.00	192,745.00
tblLandUse	LandUseSquareFeet	75,770.00	75,769.00
tblLandUse	LandUseSquareFeet	6,480.00	6,484.00
tblVehicleTrips	ST_TR	1.68	0.15
tblVehicleTrips	SU_TR	1.68	0.06
tblVehicleTrips	WD_TR	1.68	1.74

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Energy	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Mobile	0.0848	0.3039	1.2929	5.3200e-003	0.5078	3.4900e-003	0.5113	0.1358	3.2400e-003	0.1390		541.1447	541.1447	0.0205		541.6575
Total	0.9073	0.3463	1.3596	5.5700e-003	0.5078	6.8000e-003	0.5146	0.1358	6.5500e-003	0.1424		591.7028	591.7028	0.0217	9.3000e-004	592.5200

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Energy	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Mobile	0.0848	0.3039	1.2929	5.3200e-003	0.5078	3.4900e-003	0.5113	0.1358	3.2400e-003	0.1390		541.1447	541.1447	0.0205		541.6575
Total	0.9073	0.3463	1.3596	5.5700e-003	0.5078	6.8000e-003	0.5146	0.1358	6.5500e-003	0.1424		591.7028	591.7028	0.0217	9.3000e-004	592.5200

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

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	0.0848	0.3039	1.2929	5.3200e-003	0.5078	3.4900e-003	0.5113	0.1358	3.2400e-003	0.1390		541.1447	541.1447	0.0205		541.6575
Unmitigated	0.0848	0.3039	1.2929	5.3200e-003	0.5078	3.4900e-003	0.5113	0.1358	3.2400e-003	0.1390		541.1447	541.1447	0.0205		541.6575

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT	
Other Asphalt Surfaces	0.00	0.00	0.00				
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Unrefrigerated Warehouse-No Rail	55.85	4.82	1.93	175,109		175,109	
Total	55.85	4.82	1.93	175,109		175,109	

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Other Non-Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Parking Lot	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Unrefrigerated Warehouse-No Rail	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: Y

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	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
NaturalGas Unmitigated	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Roof	429.173	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Total		4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Roof	0.429173	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Total		4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909

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	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Unmitigated	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716

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	0.0820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-003	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Total	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716

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	0.0820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-003	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Total	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lincoln Avenue Existing Conditions - Orange County, Winter

Lincoln Avenue Existing Conditions Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	32.10	1000sqft	0.74	32,100.00	0
Other Asphalt Surfaces	192.75	1000sqft	4.42	192,745.00	0
Other Non-Asphalt Surfaces	75.77	1000sqft	1.74	75,769.00	0
Parking Lot	6.48	1000sqft	0.15	6,484.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2018 SCE Sustainability Report

Land Use -

Construction Phase -

Vehicle Trips - ITE Trip Manual 10th Ed

Area Coating - see assump file

Energy Use - existing conditions

Water And Wastewater - assuming 100% aerobic treatment

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	16500	389
tblLandUse	LandUseSquareFeet	192,750.00	192,745.00
tblLandUse	LandUseSquareFeet	75,770.00	75,769.00
tblLandUse	LandUseSquareFeet	6,480.00	6,484.00
tblVehicleTrips	ST_TR	1.68	0.15
tblVehicleTrips	SU_TR	1.68	0.06
tblVehicleTrips	WD_TR	1.68	1.74

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Energy	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Mobile	0.0832	0.3142	1.2222	5.0900e-003	0.5078	3.5000e-003	0.5113	0.1358	3.2500e-003	0.1391		517.5691	517.5691	0.0204		518.0779
Total	0.9057	0.3566	1.2889	5.3400e-003	0.5078	6.8100e-003	0.5146	0.1358	6.5600e-003	0.1424		568.1272	568.1272	0.0215	9.3000e-004	568.9404

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Energy	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Mobile	0.0832	0.3142	1.2222	5.0900e-003	0.5078	3.5000e-003	0.5113	0.1358	3.2500e-003	0.1391		517.5691	517.5691	0.0204		518.0779
Total	0.9057	0.3566	1.2889	5.3400e-003	0.5078	6.8100e-003	0.5146	0.1358	6.5600e-003	0.1424		568.1272	568.1272	0.0215	9.3000e-004	568.9404

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

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	0.0832	0.3142	1.2222	5.0900e-003	0.5078	3.5000e-003	0.5113	0.1358	3.2500e-003	0.1391		517.5691	517.5691	0.0204		518.0779
Unmitigated	0.0832	0.3142	1.2222	5.0900e-003	0.5078	3.5000e-003	0.5113	0.1358	3.2500e-003	0.1391		517.5691	517.5691	0.0204		518.0779

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT	
Other Asphalt Surfaces	0.00	0.00	0.00				
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Unrefrigerated Warehouse-No Rail	55.85	4.82	1.93	175,109		175,109	
Total	55.85	4.82	1.93	175,109		175,109	

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Other Non-Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Parking Lot	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Unrefrigerated Warehouse-No Rail	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: Y

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	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
NaturalGas Unmitigated	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Fuel	429.173	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Total		4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Fuel	0.429173	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909
Total		4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003		50.4909	50.4909	9.7000e-004	9.3000e-004	50.7909

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	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Unmitigated	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716

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	0.0820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-003	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Total	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716

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	0.0820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-003	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716
Total	0.8179	2.9000e-004	0.0314	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0672	0.0672	1.8000e-004		0.0716

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lincoln Avenue Existing Conditions - Orange County, Annual

Lincoln Avenue Existing Conditions Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	32.10	1000sqft	0.74	32,100.00	0
Other Asphalt Surfaces	75.77	1000sqft	1.74	75,769.00	0
Other Non-Asphalt Surfaces	192.75	1000sqft	4.42	192,745.00	0
Parking Lot	6.48	1000sqft	0.15	6,484.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MW hr)	1543.28	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see assumptions file for sqft calculations

Construction Phase -

Vehicle Trips - Weekday trip rate provided by LLG, weekend trip rate from ITE Trip Manual 10th Ed

Area Coating - see assumpt file, only accounting for area of parking

Energy Use - existing conditions

Water And Wastewater - assuming 100% aerobic treatment

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	16500	389
tblLandUse	LandUseSquareFeet	75,770.00	75,769.00
tblLandUse	LandUseSquareFeet	192,750.00	192,745.00
tblLandUse	LandUseSquareFeet	6,480.00	6,484.00
tblVehicleTrips	ST_TR	1.68	0.15
tblVehicleTrips	SU_TR	1.68	0.06
tblVehicleTrips	WD_TR	1.68	1.74

2.0 Emissions Summary

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	0.1491	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003
Energy	8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	117.5162	117.5162	2.2100e-003	5.8000e-004	117.7436
Mobile	0.0147	0.0706	0.2205	7.8000e-004	0.0664	8.8000e-004	0.0673	0.0178	8.3000e-004	0.0186	0.0000	71.4307	71.4307	3.1000e-003	0.0000	71.5082
Waste						0.0000	0.0000		0.0000	0.0000	6.1242	0.0000	6.1242	0.3619	0.0000	15.1725
Water						0.0000	0.0000		0.0000	0.0000	2.3550	67.6615	70.0165	0.2432	5.9700e-003	77.8757
Total	0.1647	0.0783	0.2309	8.3000e-004	0.0664	1.4700e-003	0.0679	0.0178	1.4200e-003	0.0192	8.4793	256.6160	265.0953	0.6104	6.5500e-003	282.3083

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	0.1491	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003
Energy	8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	117.5162	117.5162	2.2100e-003	5.8000e-004	117.7436
Mobile	0.0147	0.0706	0.2205	7.8000e-004	0.0664	8.8000e-004	0.0673	0.0178	8.3000e-004	0.0186	0.0000	71.4307	71.4307	3.1000e-003	0.0000	71.5082
Waste						0.0000	0.0000		0.0000	0.0000	6.1242	0.0000	6.1242	0.3619	0.0000	15.1725
Water						0.0000	0.0000		0.0000	0.0000	2.3550	67.6615	70.0165	0.2432	5.9700e-003	77.8757
Total	0.1647	0.0783	0.2309	8.3000e-004	0.0664	1.4700e-003	0.0679	0.0178	1.4200e-003	0.0192	8.4793	256.6160	265.0953	0.6104	6.5500e-003	282.3083

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

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	0.0147	0.0706	0.2205	7.8000e-004	0.0664	8.8000e-004	0.0673	0.0178	8.3000e-004	0.0186	0.0000	71.4307	71.4307	3.1000e-003	0.0000	71.5082
Unmitigated	0.0147	0.0706	0.2205	7.8000e-004	0.0664	8.8000e-004	0.0673	0.0178	8.3000e-004	0.0186	0.0000	71.4307	71.4307	3.1000e-003	0.0000	71.5082

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	55.85	4.82	1.93	175,109	175,109
Total	55.85	4.82	1.93	175,109	175,109

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Other Non-Asphalt Surfaces	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Parking Lot	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041
Unrefrigerated Warehouse-No	0.552373	0.044229	0.211123	0.119112	0.017503	0.005797	0.024455	0.015685	0.001637	0.001633	0.004830	0.000583	0.001041

5.0 Energy Detail

Historical Energy Use: Y

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	109.1569	109.1569	2.0500e-003	4.2000e-004	109.3346
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	109.1569	109.1569	2.0500e-003	4.2000e-004	109.3346
NaturalGas Mitigated	8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3593	8.3593	1.6000e-004	1.5000e-004	8.4090
NaturalGas Unmitigated	8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3593	8.3593	1.6000e-004	1.5000e-004	8.4090

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	156648	8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3593	8.3593	1.6000e-004	1.5000e-004	8.4090
Total		8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3593	8.3593	1.6000e-004	1.5000e-004	8.4090

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	156648	8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3593	8.3593	1.6000e-004	1.5000e-004	8.4090
Total		8.4000e-004	7.6800e-003	6.4500e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3593	8.3593	1.6000e-004	1.5000e-004	8.4090

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5705.92	3.9943	8.0000e-005	2.0000e-005	4.0008
Unrefrigerated Warehouse-No Rail	150228	105.1626	1.9800e-003	4.1000e-004	105.3339
Total		109.1569	2.0600e-003	4.3000e-004	109.3346

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5705.92	3.9943	8.0000e-005	2.0000e-005	4.0008
Unrefrigerated Warehouse-No Cool	150228	105.1626	1.9800e-003	4.1000e-004	105.3339
Total		109.1569	2.0600e-003	4.3000e-004	109.3346

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	0.1491	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003
Unmitigated	0.1491	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-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	0.0150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.8000e-004	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003
Total	0.1491	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.8000e-004	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003
Total	0.1491	4.0000e-005	3.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.6200e-003	7.6200e-003	2.0000e-005	0.0000	8.1400e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	70.0165	0.2432	5.9700e-003	77.8757
Unmitigated	70.0165	0.2432	5.9700e-003	77.8757

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	7.42312 / 0	70.0165	0.2432	5.9700e-003	77.8757
Total		70.0165	0.2432	5.9700e-003	77.8757

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	7.42312 / 0	70.0165	0.2432	5.9700e-003	77.8757
Total		70.0165	0.2432	5.9700e-003	77.8757

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.1242	0.3619	0.0000	15.1725
Unmitigated	6.1242	0.3619	0.0000	15.1725

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	30.17	6.1242	0.3619	0.0000	15.1725
Total		6.1242	0.3619	0.0000	15.1725

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	30.17	6.1242	0.3619	0.0000	15.1725
Total		6.1242	0.3619	0.0000	15.1725

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lincoln at Euclid Development Operations Run - Orange County, Summer

Lincoln at Euclid Development Operations Run Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.51	1000sqft	1.02	44,510.00	0
Other Non-Asphalt Surfaces	4.16	Acre	4.16	181,078.92	0
Parking Lot	15.54	1000sqft	0.36	15,544.00	0
Condo/Townhouse	115.00	Dwelling Unit	1.51	197,988.00	329

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - bsf provided by applicant

Construction Phase -

Vehicle Trips - trip rate for weekday provided by LLG. Sat/Sun taken from ite trip manual

Woodstoves - assuming no woodstoves

Area Coating - area associated with parking lot

Energy Use -

Water And Wastewater - Rates taken from Utilities and Service Systems Section of Initial Study *Assumes 100% aerobic treatment.

Solid Waste - rates taken from Utilities and Service Systems Section of Initial Study

Energy Mitigation -

Water Mitigation -

Fleet Mix - see assump file for Fleet Mix modification

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	14468	933
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	97.75	115.00
tblFireplaces	NumberNoFireplace	11.50	0.00
tblFireplaces	NumberWood	5.75	0.00
tblFleetMix	HHD	0.02	3.8840e-003
tblFleetMix	LDA	0.56	0.66
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	1.9930e-003
tblFleetMix	LHD2	5.7840e-003	7.8500e-004
tblFleetMix	MCY	4.9410e-003	6.2340e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	9.0400e-004	1.1100e-004
tblFleetMix	MHD	0.03	2.5490e-003
tblFleetMix	OBUS	1.7750e-003	0.00
tblFleetMix	SBUS	5.9800e-004	8.7000e-005
tblFleetMix	UBUS	1.5240e-003	0.00
tblLandUse	LandUseSquareFeet	181,209.60	181,078.92
tblLandUse	LandUseSquareFeet	15,540.00	15,544.00
tblLandUse	LandUseSquareFeet	115,000.00	197,988.00
tblLandUse	LotAcreage	7.19	1.51
tblSolidWaste	SolidWasteGenerationRate	52.90	256.68
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	SU_TR	4.84	6.28

tblVehicleTrips	WD_TR	5.81	7.32
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	7,492,712.95	18,504,405.00
tblWater	OutdoorWaterUseRate	4,723,666.86	9,024,625.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	5.75	0.00
tblWoodstoves	NumberNoncatalytic	5.75	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750
Energy	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Mobile	1.2097	1.6211	16.6402	0.0586	6.6852	0.0419	6.7271	1.7733	0.0386	1.8119		5,865.4063	5,865.4063	0.1724		5,869.7154
Total	6.1256	4.1505	27.1663	0.0746	6.6852	0.2901	6.9753	1.7733	0.2868	2.0601	0.0000	8,971.866	8,971.8665	0.2480	0.0566	8,994.945

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	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750
Energy	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Mobile	1.2097	1.6211	16.6402	0.0586	6.6852	0.0419	6.7271	1.7733	0.0386	1.8119		5,865.4063	5,865.4063	0.1724		5,869.7154
Total	6.1256	4.1505	27.1663	0.0746	6.6852	0.2901	6.9753	1.7733	0.2868	2.0601	0.0000	8,971.8665	8,971.8665	0.2480	0.0566	8,994.9457

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

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	1.2097	1.6211	16.6402	0.0586	6.6852	0.0419	6.7271	1.7733	0.0386	1.8119		5,865.4063	5,865.4063	0.1724		5,869.7154
Unmitigated	1.2097	1.6211	16.6402	0.0586	6.6852	0.0419	6.7271	1.7733	0.0386	1.8119		5,865.4063	5,865.4063	0.1724		5,869.7154

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	841.80	936.10	722.20	2,864,208	2,864,208
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	841.80	936.10	722.20	2,864,208	2,864,208

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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
Condo/Townhouse	0.662515	0.054506	0.247325	0.020012	0.001993	0.000785	0.002549	0.003884	0.000000	0.000000	0.006234	0.000087	0.000111
Other Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Other Non-Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Parking Lot	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

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	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
NaturalGas Unmitigated	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	5559.58	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	5.55958	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553

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	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750
Unmitigated	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750

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	0.3406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2232	1.9077	0.8118	0.0122		0.1542	0.1542		0.1542	0.1542	0.0000	2,435.2941	2,435.2941	0.0467	0.0447	2,449.7659
Landscaping	0.2865	0.1095	9.4963	5.0000e-004		0.0526	0.0526		0.0526	0.0526		17.0976	17.0976	0.0165		17.5092
Total	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750

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	0.3406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2232	1.9077	0.8118	0.0122		0.1542	0.1542		0.1542	0.1542	0.0000	2,435.2941	2,435.2941	0.0467	0.0447	2,449.7659
Landscaping	0.2865	0.1095	9.4963	5.0000e-004		0.0526	0.0526		0.0526	0.0526		17.0976	17.0976	0.0165		17.5092
Total	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750

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

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lincoln at Euclid Development Operations Run - Orange County, Winter

Lincoln at Euclid Development Operations Run Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.51	1000sqft	1.02	44,510.00	0
Other Non-Asphalt Surfaces	4.16	Acre	4.16	181,078.92	0
Parking Lot	15.54	1000sqft	0.36	15,544.00	0
Condo/Townhouse	115.00	Dwelling Unit	1.51	197,988.00	329

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - bsf provided by applicant

Construction Phase -

Vehicle Trips - trip rate for weekday provided by LLG. Sat/Sun taken from ite trip manual

Woodstoves - assuming no woodstoves

Area Coating - area associated with parking lot

Energy Use -

Water And Wastewater - Rates taken from Utilities and Service Systems Section of Initial Study *Assumes 100% aerobic treatment.

Solid Waste - rates taken from Utilities and Service Systems Section of Initial Study

Energy Mitigation -

Water Mitigation -

Fleet Mix - see assump file for Fleet Mix modification

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	14468	933
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	97.75	115.00
tblFireplaces	NumberNoFireplace	11.50	0.00
tblFireplaces	NumberWood	5.75	0.00
tblFleetMix	HHD	0.02	3.8840e-003
tblFleetMix	LDA	0.56	0.66
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	1.9930e-003
tblFleetMix	LHD2	5.7840e-003	7.8500e-004
tblFleetMix	MCY	4.9410e-003	6.2340e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	9.0400e-004	1.1100e-004
tblFleetMix	MHD	0.03	2.5490e-003
tblFleetMix	OBUS	1.7750e-003	0.00
tblFleetMix	SBUS	5.9800e-004	8.7000e-005
tblFleetMix	UBUS	1.5240e-003	0.00
tblLandUse	LandUseSquareFeet	181,209.60	181,078.92
tblLandUse	LandUseSquareFeet	15,540.00	15,544.00
tblLandUse	LandUseSquareFeet	115,000.00	197,988.00
tblLandUse	LotAcreage	7.19	1.51
tblSolidWaste	SolidWasteGenerationRate	52.90	256.68
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	SU_TR	4.84	6.28

tblVehicleTrips	WD_TR	5.81	7.32
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	7,492,712.95	18,504,405.00
tblWater	OutdoorWaterUseRate	4,723,666.86	9,024,625.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	5.75	0.00
tblWoodstoves	NumberNoncatalytic	5.75	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750
Energy	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Mobile	1.1834	1.7266	15.7440	0.0556	6.6852	0.0420	6.7272	1.7733	0.0387	1.8120		5,562.4632	5,562.4632	0.1696		5,566.7030
Total	6.0993	4.2561	26.2701	0.0715	6.6852	0.2902	6.9754	1.7733	0.2869	2.0602	0.0000	8,668.9233	8,668.9233	0.2453	0.0566	8,691.9333

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	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750
Energy	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Mobile	1.1834	1.7266	15.7440	0.0556	6.6852	0.0420	6.7272	1.7733	0.0387	1.8120		5,562.4632	5,562.4632	0.1696		5,566.7030

Total	6.0993	4.2561	26.2701	0.0715	6.6852	0.2902	6.9754	1.7733	0.2869	2.0602	0.0000	8,668.9233	8,668.9233	0.2453	0.0566	8,691.9333
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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	1.1834	1.7266	15.7440	0.0556	6.6852	0.0420	6.7272	1.7733	0.0387	1.8120		5,562.4632	5,562.4632	0.1696		5,566.7030
Unmitigated	1.1834	1.7266	15.7440	0.0556	6.6852	0.0420	6.7272	1.7733	0.0387	1.8120		5,562.4632	5,562.4632	0.1696		5,566.7030

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	841.80	936.10	722.20	2,864,208	2,864,208
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	841.80	936.10	722.20	2,864,208	2,864,208

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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
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Condo/Townhouse	0.662515	0.054506	0.247325	0.020012	0.001993	0.000785	0.002549	0.003884	0.000000	0.000000	0.006234	0.000087	0.000111
Other Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Other Non-Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Parking Lot	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

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	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
NaturalGas Unmitigated	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	5559.58	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	5.55958	0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0600	0.5124	0.2180	3.2700e-003		0.0414	0.0414		0.0414	0.0414		654.0685	654.0685	0.0125	0.0120	657.9553

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	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750
Unmitigated	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750

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	0.3406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2232	1.9077	0.8118	0.0122		0.1542	0.1542		0.1542	0.1542	0.0000	2,435.2941	2,435.2941	0.0467	0.0447	2,449.7659
Landscaping	0.2865	0.1095	9.4963	5.0000e-004		0.0526	0.0526		0.0526	0.0526		17.0976	17.0976	0.0165		17.5092
Total	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750

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	0.3406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2232	1.9077	0.8118	0.0122		0.1542	0.1542		0.1542	0.1542	0.0000	2,435.2941	2,435.2941	0.0467	0.0447	2,449.7659
Landscaping	0.2865	0.1095	9.4963	5.0000e-004		0.0526	0.0526		0.0526	0.0526		17.0976	17.0976	0.0165		17.5092
Total	4.8559	2.0171	10.3081	0.0127		0.2068	0.2068		0.2068	0.2068	0.0000	2,452.3917	2,452.3917	0.0631	0.0447	2,467.2750

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

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lincoln at Euclid Development Operations Run - Orange County, Annual

Lincoln at Euclid Development Operations Run Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.51	1000sqft	1.02	44,510.00	0
Other Non-Asphalt Surfaces	4.16	Acre	4.16	181,078.92	0
Parking Lot	15.54	1000sqft	0.36	15,544.00	0
Condo/Townhouse	115.00	Dwelling Unit	1.51	197,988.00	329

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MW hr)	1543.28	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - bsf provided by applicant

Construction Phase -

Vehicle Trips - trip rate for weekday provided by LLG. Sat/Sun taken from ite trip manual

Woodstoves - assuming no woodstoves

Area Coating - area associated with parking lot

Energy Use -

Water And Wastewater - Rates taken from Utilities and Service Systems Section of Initial Study *Assumes 100% aerobic treatment.

Solid Waste - rates taken from Utilities and Service Systems Section of Initial Study

Energy Mitigation -

Water Mitigation -

Fleet Mix - see assump file for Fleet Mix modification

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	14468	933
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	97.75	115.00
tblFireplaces	NumberNoFireplace	11.50	0.00
tblFireplaces	NumberWood	5.75	0.00
tblFleetMix	HHD	0.02	3.8840e-003
tblFleetMix	LDA	0.56	0.66
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	1.9930e-003
tblFleetMix	LHD2	5.7840e-003	7.8500e-004
tblFleetMix	MCY	4.9410e-003	6.2340e-003
tblFleetMix	MDV	0.11	0.02
tblFleetMix	MH	9.0400e-004	1.1100e-004
tblFleetMix	MHD	0.03	2.5490e-003
tblFleetMix	OBUS	1.7750e-003	0.00
tblFleetMix	SBUS	5.9800e-004	8.7000e-005
tblFleetMix	UBUS	1.5240e-003	0.00
tblLandUse	LandUseSquareFeet	181,209.60	181,078.92
tblLandUse	LandUseSquareFeet	15,540.00	15,544.00
tblLandUse	LandUseSquareFeet	115,000.00	197,988.00
tblLandUse	LotAcreage	7.19	1.51
tblSolidWaste	SolidWasteGenerationRate	52.90	256.68
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	SU_TR	4.84	6.28

tblVehicleTrips	WD_TR	5.81	7.32
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	7,492,712.95	18,504,405.00
tblWater	OutdoorWaterUseRate	4,723,666.86	9,024,625.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	5.75	0.00
tblWoodstoves	NumberNoncatalytic	5.75	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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	0.8318	0.0375	1.1972	2.1000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	29.5546	29.5546	2.4000e-003	5.1000e-004	29.7654
Energy	0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	512.0741	512.0741	9.6600e-003	3.5600e-003	513.3751
Mobile	0.1871	0.2872	2.6102	9.1800e-003	1.0700	6.8200e-003	1.0768	0.2842	6.2900e-003	0.2905	0.0000	833.6312	833.6312	0.0252	0.0000	834.2602
Waste						0.0000	0.0000		0.0000	0.0000	52.1037	0.0000	52.1037	3.0792	0.0000	129.0848
Water						0.0000	0.0000		0.0000	0.0000	6.5469	238.8534	245.4003	0.0270	0.0152	250.5953
Total	1.0298	0.4183	3.8471	9.9900e-003	1.0700	0.0229	1.0929	0.2842	0.0224	0.3066	58.6506	1,614.1133	1,672.7639	3.1435	0.0192	1,757.0807

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	0.8318	0.0375	1.1972	2.1000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	29.5546	29.5546	2.4000e-003	5.1000e-004	29.7654
Energy	0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	512.0741	512.0741	9.6600e-003	3.5600e-003	513.3751
Mobile	0.1871	0.2872	2.6102	9.1800e-003	1.0700	6.8200e-003	1.0768	0.2842	6.2900e-003	0.2905	0.0000	833.6312	833.6312	0.0252	0.0000	834.2602
Waste						0.0000	0.0000		0.0000	0.0000	52.1037	0.0000	52.1037	3.0792	0.0000	129.0848
Water						0.0000	0.0000		0.0000	0.0000	5.2375	200.8387	206.0762	0.0218	0.0122	210.2481
Total	1.0298	0.4183	3.8471	9.9900e-003	1.0700	0.0229	1.0929	0.2842	0.0224	0.3066	57.3412	1,576.0985	1,633.4398	3.1383	0.0162	1,716.7335

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	2.36	2.35	0.17	15.59	2.30

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	0.1871	0.2872	2.6102	9.1800e-003	1.0700	6.8200e-003	1.0768	0.2842	6.2900e-003	0.2905	0.0000	833.6312	833.6312	0.0252	0.0000	834.2602
Unmitigated	0.1871	0.2872	2.6102	9.1800e-003	1.0700	6.8200e-003	1.0768	0.2842	6.2900e-003	0.2905	0.0000	833.6312	833.6312	0.0252	0.0000	834.2602

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	841.80	936.10	722.20	2,864,208	2,864,208
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	841.80	936.10	722.20	2,864,208	2,864,208

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
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
Condo/Townhouse	0.662515	0.054506	0.247325	0.020012	0.001993	0.000785	0.002549	0.003884	0.000000	0.000000	0.006234	0.000087	0.000111
Other Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Other Non-Asphalt Surfaces	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Parking Lot	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

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	403.7857	403.7857	7.5900e-003	1.5700e-003	404.4432
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	403.7857	403.7857	7.5900e-003	1.5700e-003	404.4432
NaturalGas Mitigated	0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	108.2884	108.2884	2.0800e-003	1.9900e-003	108.9319
NaturalGas Unmitigated	0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	108.2884	108.2884	2.0800e-003	1.9900e-003	108.9319

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.02925e+006	0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	108.2884	108.2884	2.0800e-003	1.9900e-003	108.9319
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	108.2884	108.2884	2.0800e-003	1.9900e-003	108.9319

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.02925e+006	0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	108.2884	108.2884	2.0800e-003	1.9900e-003	108.9319
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0109	0.0935	0.0398	6.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003	0.0000	108.2884	108.2884	2.0800e-003	1.9900e-003	108.9319

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	571380	399.9773	7.5200e-003	1.5600e-003	400.6286
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5440.4	3.8084	7.0000e-005	1.0000e-005	3.8146
Total		403.7857	7.5900e-003	1.5700e-003	404.4432

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	571380	399.9773	7.5200e-003	1.5600e-003	400.6286
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5440.4	3.8084	7.0000e-005	1.0000e-005	3.8146
Total		403.7857	7.5900e-003	1.5700e-003	404.4432

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	0.8318	0.0375	1.1972	2.1000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	29.5546	29.5546	2.4000e-003	5.1000e-004	29.7654
Unmitigated	0.8318	0.0375	1.1972	2.1000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	29.5546	29.5546	2.4000e-003	5.1000e-004	29.7654

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	0.0622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.7900e-003	0.0239	0.0102	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6158	27.6158	5.3000e-004	5.1000e-004	27.7799
Landscaping	0.0358	0.0137	1.1870	6.0000e-005		6.5700e-003	6.5700e-003		6.5700e-003	6.5700e-003	0.0000	1.9388	1.9388	1.8700e-003	0.0000	1.9855
Total	0.8318	0.0375	1.1972	2.1000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	29.5546	29.5546	2.4000e-003	5.1000e-004	29.7654

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	0.0622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.7900e-003	0.0239	0.0102	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6158	27.6158	5.3000e-004	5.1000e-004	27.7799
Landscaping	0.0358	0.0137	1.1870	6.0000e-005		6.5700e-003	6.5700e-003		6.5700e-003	6.5700e-003	0.0000	1.9388	1.9388	1.8700e-003	0.0000	1.9855
Total	0.8318	0.0375	1.1972	2.1000e-004		8.5000e-003	8.5000e-003		8.5000e-003	8.5000e-003	0.0000	29.5546	29.5546	2.4000e-003	5.1000e-004	29.7654

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	206.0762	0.0218	0.0122	210.2481
Unmitigated	245.4003	0.0270	0.0152	250.5953

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	18.5044 / 9.02463	245.4003	0.0270	0.0152	250.5953
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		245.4003	0.0270	0.0152	250.5953

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	14.8035 / 8.47412	206.0762	0.0218	0.0122	210.2481
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		206.0762	0.0218	0.0122	210.2481

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	52.1037	3.0792	0.0000	129.0848
Unmitigated	52.1037	3.0792	0.0000	129.0848

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	256.68	52.1037	3.0792	0.0000	129.0848
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		52.1037	3.0792	0.0000	129.0848

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	256.68	52.1037	3.0792	0.0000	129.0848
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		52.1037	3.0792	0.0000	129.0848

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lincoln at Euclid Development Operations Run
Orange County, Mitigation Report

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	15.92	16.02	19.32	19.78	16.10
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				

No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00

No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	