Appendix A

Air Quality and Greenhouse Gas Emissions Analysis
Chabad Jewish Center of Tustin

Synectecology, October 2021

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Appendix C
AIR QUALITY AND GREENHOUSE GAS EMISSIONS ANALYSIS

CHABAD JEWISH CENTER OF TUSTIN
18002 E. 17th Street
Santa Ana, California 92705

Planning Application PA21-0055

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1.0 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of the "California Environmental Quality Act" (CEQA) and the State of California's "Guidelines for the Implementation of the California Environmental Quality Act" (State CEQA Guidelines) to determine if significant air quality or greenhouse gas (GHG) impacts are likely to occur in conjunction with the type and scale of development associated with the proposed "Chabad Jewish Center of Tustin Project." The project is to be located in the "North Tustin Specific Plan" (NTSP) area of unincorporated Orange County (County).

The project represents the relocation of the existing Chabad Jewish Center of Tustin from a "temporary" storefront facility to a new "permanent" facility. The existing facility encompasses 1,052± square feet of leased office space (13112 Newport Avenue, Suite H, Tustin 92780). The proposed facility is an approximately 9,850± square feet multi-function building, containing 50-fixed seats and containing, among other uses, a "main sanctuary," library, kitchen, social room, administrative offices, and an approximately 1,080± square feet "accessory religious education room." The project site includes about an area of approximately 0.88 acre and is located along the south side of E. 17th Street about 1.6 miles east of the Costa Mesa (SR-55) Freeway. The Santa Ana (I-5) Freeway lies about 1.9 miles to the southwest.

The project includes the removal of an existing single-family residential unit. The project site is depicted in Figure AQ-1 (Chabad Jewish Center of Tustin - Project Site [18802 E. 17th Street, Santa Ana 92705).

The impact analysis contained herein was prepared in accordance with the methodologies provided by the South Coast Air Quality Management District (SCAQMD), as included in the "CEQA Air Quality Handbook" (April 1993) (Handbook) as well as updates included on the SCAQMD Internet website. The analysis makes use of the California Emissions Estimator Model (CalEEMod Version 2020.4.0), as distributed by the SCAQMD, and screening tables included in the SCAQMD's "Final Localized Significance Threshold Methodology" (June 2003) and "Sample Construction Scenarios for Projects less than Five Acres in Size" (February 2005).

The CalEEMod model uses EMFAC2017 emissions factors for vehicle traffic and the OFFROAD2011 emissions factors for construction equipment. For the purposes of this analysis, construction is estimated to begin in February 2022 and follows the CalEEMod default construction schedule.

The subsequent occupation of the project site is assumed in 2022 and is also based on the CalEEMod model using the traffic-projections presented in "VMT Analysis: Chabad Jewish Center of Tustin, County of County Relocation and Expansion Project" (Sasaki Transportation Services, May 15, 2021). As such, the trip generation rates provided by Sasaki Transportation Services (STS) were used in the CalEEMod model runs to substitute for the default values.

The STS study was based, in part, on the Institute of Transportation Engineer's (ITE) "Trip Generation Manual, 10th Edition" (10th Edition). In accordance therewith, the proposed project would generate 123 average daily trips (ADT) on a weekday. STS also estimates that the proposed project would generate 61 ADT on a Saturday and 59 ADT on a Sunday. In actuality, the facility represents the relocation of an existing facility located about a mile to the southwest and most of the Saturday and Sunday trips already occur. The proposed Chabad Jewish Center of Tustin (Chabad) site was selected by the Chabad Jewish Center of Tustin (Applicant) because it is anticipated to be more proximate to the members of its congregation located in the North Tustin area.

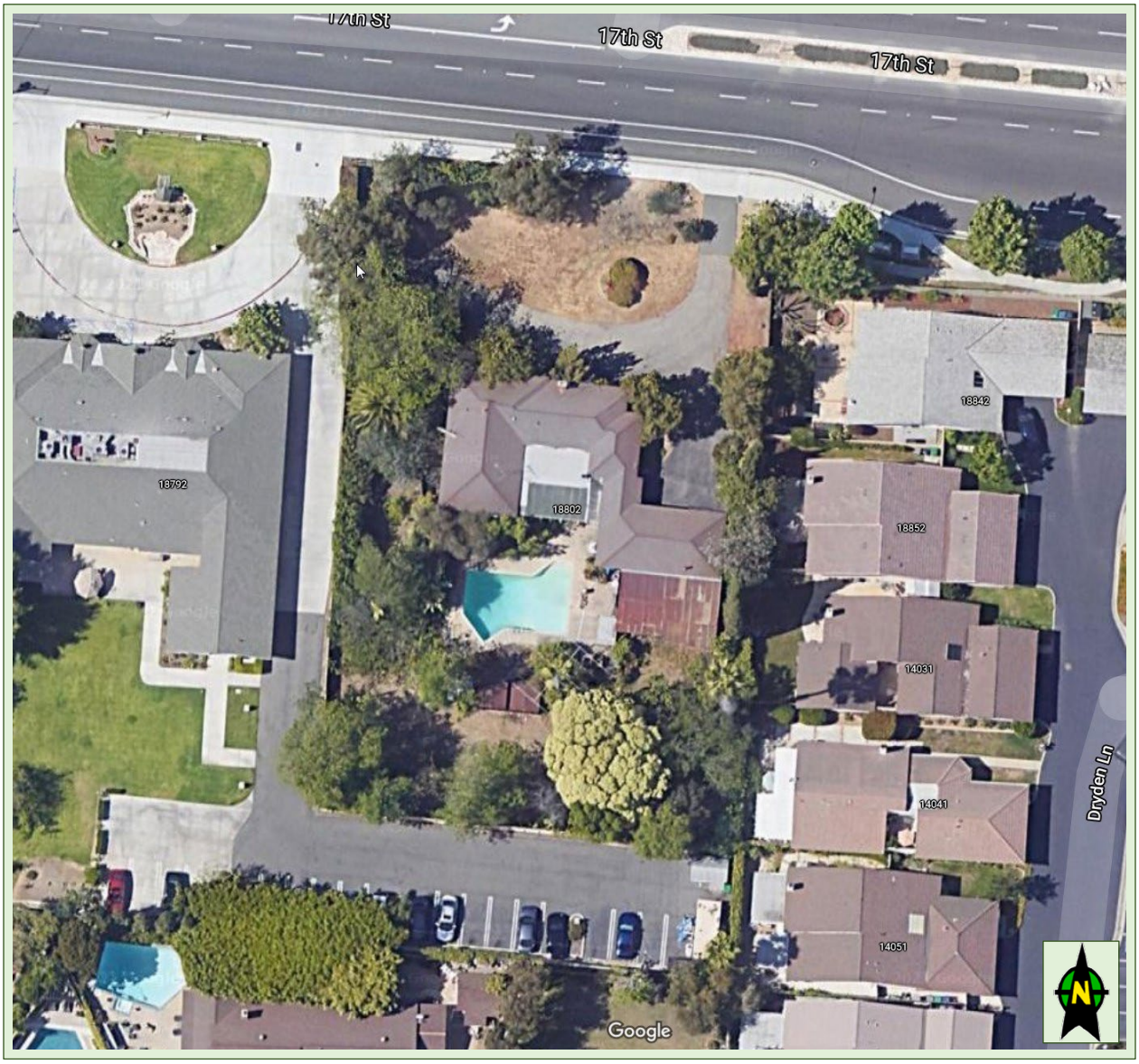

Figure AQ-1
CHABAD JEWISH CENTER OF TUSTIN PROJECT SITE
(18802 E. 17th Street, Santa Ana 92705)
Source: Google Earth

Additionally, the Chabad would replace an existing residential use. This would remove that use's trips from the area's road. Still, as a worst-case scenario, this analysis considers the impacts of the proposed Chabad as if it was a new land use.

The CalEEMod model reports the day with the highest emissions production. The Saturday and Sunday values are used in the calculation of the annual GHG emissions.

2.0 EXISTING CONDITIONS

2.1 Climate/Meteorology

The project area lies in the South Coast Air Basin (SCAB or Basin). The SCAB includes all of the County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino

Counties. The Basin is located in a coastal plain with connecting broad valleys and low hills, 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 climatological pattern is infrequently interrupted by periods of extremely hot weather, winter storms, or Santa Ana winds.

The annual average temperature varies little throughout the Basin, 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 located nearest to the project site (Tustin station) reports a yearly average of 62°F. The average low is reported at 40°F both in December and January while the average high is 85°F in August. All areas in the Basin have recorded temperatures above 100°F in recent years. Temperatures as high as 111°F have been recorded at the Tustin station. January is typically the coldest month in this area of the Basin, with minimum temperatures in the 30s.

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November 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 averages around 12.9 inches/year in the project area as measured in Tustin.

Although the Basin has a semi-arid climate, the air near the 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 Basin by off-shore winds, the ocean effect is dominant. Periods of heavy fog, especially along the coastline, are frequent; and low stratus 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 Basin.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season. Annually, typical winds in the project area average about 5 to 8 miles per hour during the day and 2 to 5 miles per hour during the night. The overall average wind speed is reported at 4.5 mph in Santa Ana.

Between the periods of dominant air flow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs 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 Basin, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally have a duration of a few days before predominant meteorological conditions are reestablished.

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 inversions are the marine/ subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the “mixing height.” This mixing height can change under conditions when the top of the inversion does not change. 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.

2.2 Ambient Air Quality

The following characterization of the baseline atmospheric environment includes an evaluation of the ambient air quality and applicable rules, regulations, and standards for the area. Because the project has the ability to release gaseous emissions of criteria pollutants and dust into the ambient air, it falls under the ambient air quality standards promulgated on the local, State, and federal levels.

2.2.1 Affected Environment

Topographical features that affect the transport and diffusion of pollutants in the project area include the mountain ranges to the northeast that prevent the transport of pollutants. Air quality in the SCAB 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.

The quality of the ambient air is affected by pollutants emitted into the air from stationary and mobile sources. Stationary sources can be divided into two major subcategories: "point sources" and "area sources." Point sources consist of one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial processing plants. Area sources are widely distributed and produce many small emissions.

Mobile sources refer to emissions from motor vehicles (including tailpipe and evaporative emissions) and are classified as either on-road or off-road. On-road sources are a combination of emissions from automobiles, trucks, and indirect sources. Indirect sources are sources that, by themselves, may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy. Examples of indirect sources include a commercial center that generates vehicle trips and consumes energy resources through the use of natural gas for space and water heating. Indirect sources also include actions proposed by local governments, such as public and private development projects. In addition, indirect sources include those emissions created by the distance vehicles travel. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

2.2.2 Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and federal law. These regulated air pollutants are known as "criteria air pollutants" and are categorized as "primary" and "secondary" pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NOx), sulfur dioxide (SO_2), and most fine particulate matter (PM_{10} and $PM_{2.5}$), including lead (Pb) and fugitive dust, are primary air pollutants. Of these CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NOx are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reaction in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Presented below is a description of each of these primary and secondary criteria air pollutants and their known health effects. Other pollutants, such as carbon dioxide (CO_2), a natural by-product of animal respiration that is also produced in the combustion process, have been linked to such phenomena as global warming. These emissions are now regulated and there are recommended thresholds for their release. These pollutants do not, however, jeopardize the attainment status of the SCAB.

- **Carbon monoxide** (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is the interference of normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

- **Reactive organic gases** (ROGs) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion, associated with motor vehicle usage, is the major source of hydrocarbons. Other sources of ROG include the 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. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG to form secondary pollutants. Note that for the purposes of this analysis ROG and volatile organic compounds (VOC), such as the emissions released from paint, are synonymous.

- **Nitrogen oxides** (NOx) serve as integral participants in the process of photochemical smog production. The two major forms of NOx are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen (O). NOx acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

- **Nitrogen dioxide** (NO_2) is a by-product of fuel combustion. The principal form of NO_2 produced by combustion is nitric oxide (NO). NO reacts to form NO_2, creating the mixture of NO and NO_2 commonly called NOx. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns or 0.0004 inch or less in diameter).

- **Sulfur dioxide** (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations, when combined with particulates, SO_2 may injure lung tissue.

- **Particulate matter** (PM) consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulate are now recognized. "Course particles" (PM_{10}) include that portion of the PM with an aerodynamic diameter of 10 microns (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. "Fine particles" ($PM_{2.5}$) have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Wind action on the arid landscape also contributes substantially to the local particulate loading. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

- **Fugitive dust** poses primarily two public health and safety concerns. The first concern is that of respiratory problems attributable to the suspended particulates in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind

conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent. Fugitive dust can also result in a nuisance factor due to the soiling of proximate structures and vehicles.

- **Ozone** (O_3) is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds (ROC) and NOx (both by-products of the internal combustion engine) react with sunlight. O_3 is present in relatively high concentrations in the SCAB and the damaging effects of photochemical smog are generally related to the concentrations of O_3. O_3 may pose a health threat to those who already suffer from respiratory diseases as well as healthy people. O_3 has been tied to crop damage (typically in the form of stunted growth and pre-mature death) and acts as a corrosive (resulting in property damage, such as the embitterment of rubber products).

2.2.3 Toxic Air Contaminants

The public's exposure to "toxic air contaminants" (TAC) is an 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 (H&SC) 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 of 1970 (42 U.S.C. 7412[b]) (CAA) is a TAC.

Under State law, the California Environmental Protection Agency (CalEPA), acting through the CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant which may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bills 1807 (Tanner Air Toxics Act) and 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for the California Air Resources Board (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 at 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" (T-BACT) to minimize emissions.

Air toxics from stationary sources are regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under Assembly Bill 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district (AQMD) or air pollution control district (APCD). High priority facilities are required to perform a health-risk assessment and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. To date, the CARB has designated nearly 200 compounds as TACs. Additionally, the 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 a relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel PM).

In 2000, the SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer

from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk.

2.2.4 Other Effects of Air Pollution

Just as humans are affected by air pollution, so too are plants and animals. Animals must breathe the same air and are subject to the same types of negative health effects. Certain plants and trees may absorb air pollutants that can stunt their development or cause premature death, as well as interfere with their ability to convert CO_2 to oxygen.

There are also numerous impacts to our economy including lost workdays due to illness, a desire on the part of business to locate in areas with a healthy environment, and increased expenses from medical costs. Pollutants may also lower visibility and cause damage to property. Certain air pollutants are responsible for discoloring painted surfaces, eating away at stones used in buildings, dissolving the mortar that holds bricks together, and cracking tires and other items made from rubber.

2.2.5 Greenhouse Gas Emissions

- **Federal Regulations**. In 2021 President Biden rejoined the United States into the Paris climate accord. The Paris climate accord, known as the "Paris Agreement" by the United Nations, is an international agreement reached in 2015 aimed at reducing carbon emissions, slowing rising global temperatures and helping countries deal with the effects of climate change.

  Under the terms of the agreement, signatories committed to "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels."

  The deal requires countries to set their own targets for reducing emissions by 2020. The Obama administration committed the United States to reducing carbon emissions by 26 to 28 percent by 2025. The agreement also established a $100 billion fund to help vulnerable countries deal with the effects of climate change.

  The final text of the agreement was adopted at the Conference of Parties to the United Nations Framework Convention on Climate Change in December 2015. The U.S., which took the lead in negotiating the deal, signed into agreement in April 2016, along with China, the European Union and 171 other nations. China and the United States account for nearly 40 percent of global carbon emissions. The agreement took effect in November 2016 after those nations accounting for 55 percent of global emissions ratified the treaty.

- **State Regulations**. As defined in Section 38505 of the H&SC, greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

  In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which Statewide emission of greenhouse gas would be progressively reduced, as follows: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.), which requires CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective Statewide GHG emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions).

In June 2007, CARB directed staff to pursue 37 early actions for reducing GHG emissions under Assembly Bill 32 (AB 32). The broad spectrum of strategies to be developed (including a low carbon fuel standard, regulations for refrigerants with high global warming potentials, guidance and protocols for local governments to facilitate GHG reductions, and green ports) reflects that the serious threat of climate change requires action as soon as possible.

In addition to approving the GHG reduction strategies, CARB directed staff to evaluate early action recommendations made at the June 2007 meeting and to report back to CARB. The general sentiment of CARB suggested a desire to try to pursue greater GHG emissions reductions in California in the near-term. Since the June 2007 CARB hearing, CARB staff has evaluated all 48 recommendations submitted by several stakeholder and several staff ideas and published the "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California." Based on its additional analysis, CARB staff recommended the expansion of the early action list to a total of 44 measures. Nine of the strategies meet the AB 32 definition of discrete early action measures. Discrete early action measures were measures that would be in place and enforceable by January 1, 2010. The discrete early action items include: (1) a low carbon fuel standards for ethanol, biodiesel, hydrogen, electricity, compressed natural gas, liquefied petroleum gas, and biogas; (2) restrictions on high global warming potential refrigerants; (3) landfill methane capture; (4) Smartway Truck efficiency; (5) port electrification; (6) reduction of perfluorocarbons from the semiconductor industry; (7) reduction of propellants in consumer products; (8) tire inflation; and (9) sulfur hexafluoride (SF_6) reductions from non-electricity sector.

The 2020 target reductions were estimated to be 174 million metric tons of carbon dioxide (CO_2) equivalent ($MMTCO_2e$). In total, the recommended early actions have the potential to reduce GHG emissions by at least 42 $MMTCO_2e$ emissions by 2020, representing about 25 percent of the estimated reductions needed by 2020. CARB adopted Resolution 07-55 in December 2007, approving 427 $MMTCO_2e$ as the Statewide GHG emissions limit for 2020, which is equivalent to the 1990 emissions level. The measures are in the sectors of fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, solid waste, cement, oil and gas, electricity, and fire suppression.

The most recent update to the AB 32 is the "Final 2017 Scoping Plan" that was approved by the CARB on December 14, 2017. This plan builds upon the 2008 and 2013 scoping plans with new strategies and recommendations. The plan identifies how the State can reach its 2030 climate target to reduce GHG emissions by 40 percent from 1990 levels and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. By selecting and pursuing a sustainable and clean economy path for 2030, the State will continue to execute existing programs, demonstrate the coupling of economic growth and environmental progress, and enhance new opportunities for engagement within the State to address and prepare for climate change.

This current plan builds on and integrates efforts already underway to reduce the State's GHG, criteria pollutant, and TAC emissions. Programs such as the low carbon fuel standard

and renewables portfolio standard are delivering cleaner fuels and energy, the "Advanced Clean Cars Program" has put more than a quarter million clean vehicles on the road, and the "Sustainable Freight Action Plan" will result in efficient and cleaner systems to move goods throughout the State. Enhancing and implementing these ongoing efforts, paired with a more stringent Cap-and-Trade Program, puts California on the path to achieving the 2030 target and to deliver climate, air quality, and other benefits.

2.3 Ambient Air Quality Standards (AAQS)

The Clean Air Act Amendment of 1971 established national Ambient Air Quality Standards (AAQS), retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare and are designed to protect those "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 standards before adverse effects are observed.

Both the State and the federal government have established health based AAQS for six air pollutants. As shown in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants), these pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter (PM_{10}, $PM_{2.5}$), and lead. 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.

In addition to primary and secondary AAQS, the State has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants, which actually threaten public health.

2.4 Air Quality Management Planning

2.4.1 Local Planning Requirements

The SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the "Air Quality Management Plan" (AQMP) for the SCAB. Since 1979, a number of AQMPs have been prepared. The AQMP was designed to comply with State and federal requirements, reduce the high level of pollutant emissions in the SCAB, and ensure clean air for the region through various control measures. To accomplish its task, the AQMP relies on a multilevel partnership of governmental agencies at the federal, State, regional, and local level. These agencies (i.e., the USEPA, CARB, local governments, SCAG, and SCAQMD) are the cornerstones that implement the AQMP programs.

In December 2016, the SCAQMD prepared the "Final Draft" of the "2016 Air Quality Management Plan" (2016 AQMP). The SCAQMD reports that the 2016 AQMP includes integrated strategies and measures to meet the NAAQS 8-hour ozone standard of 75 parts per billion (ppb) by 2032, the annual $PM_{2.5}$ standard of 12 micrograms per cubic meter ($\mu g/m^3$) by 2021-2025, the 8-hour ozone standard of 80 ppb by 2024 (updated from the 2007 and 2012 AQMPs), the 1-hour ozone standard (120 ppb) by 2023 (updated from the 2012 AQMP), and the 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ by 2019 (updated from the 2012 AQMP). The 2016 AQMP also takes an initial look at proposed new federal 8-hour ozone standard (in the 65-70 ppb range), as well as incorporate

energy, transportation, goods movement, infrastructure and other planning efforts that affect future air quality. The SCAQMD presented a public hearing presentation for the 2016 AQMP on February 3, 2017 and approved the 2016 AQMP on March 3, 2017 that demonstrates attainment of the 1-hr and 8-hr ozone NAAQS as well as the latest 24-hour and annual $PM_{2.5}$ standards.

Table AQ-1
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070	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 Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	*	
Sulfur Dioxide (SO_2)	Annual Average	*	0.03 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	*	
	24 hours	0.04 ppm	0.14 ppm	
Suspended Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	*	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 $\mu g/m^3$	150 $\mu g/m^3$	
Suspended Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	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 $\mu g/m^3$	
Lead (Pb)	Monthly	1.5 $\mu g/m^3$	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 $\mu g/m^3$	
Sulfates (SO_4)	24 hours	25 $\mu g/m^3$	*	Industrial processes.

Notes:
ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard is not applicable for this pollutant/duration by this entity.

Source: California Air Resources Board

USEPA designates areas throughout the country as “attainment” or “nonattainment” with the NAAQS and establishes classifications for the nonattainment areas that dictate statutory attainment dates and requirements pursuant to the CAA. On February 3, 2017, the USEPA made a finding of failure to submit a “State Implementation Plan” (SIP) for the 2008 Ozone NAAQS including nonattainment “New Source Review” (NSR) certification for the SCAB and Coachella Valley. The action would not change the existing SCAQMD’s NSR program or requirements for affected facilities. A “Nonattainment NSR Compliance Demonstration” was completed and will be considered for certification by the SCAQMD’s Governing Board.

The SCAQMD also estimated that $12 to 14 billion in funding would be required for the implementation of the plan and has set up a working group to this end. On December 13, 2017,

the SCAQMD convened a working group to address the "Implementation of the 2016 AQMP – Stationary Source Incentive Guidelines."

Subsequently, the SCAQMD updated the attainment demonstration of the federal 1979 1-hour ozone standard that was presented in the 2016 AQMP. The emissions inventory in the updated attainment demonstration is based on the final emissions inventory in the 2016 AQMP in order to be consistent with the attainment demonstrations of the 8-hour ozone and $PM_{2.5}$ standards. The updated attainment demonstration also included revised air quality modeling and an updated attainment strategy for meeting the 1-hour ozone standard.

The updated attainment strategy relies only on SCAQMD's proposed control measures (in the 2016 AQMP), based on the expectation that progress in emission reductions targeted toward attainment of the 1997 8-hour ozone standard by 2023 will ensure attainment of the 1-hour ozone standard by 2022. As such, emission reductions from CARB's SIP, including CAA Section 182(e)5 ("black box") long-term measures are no longer needed to attain the 1-hour standard. The updated attainment strategy demonstrates attainment of the 1-hour ozone standard by 2022.

The Coachella Valley is currently classified as "severe" nonattainment for the 1997 8-hour ozone standard and was required to demonstrate attainment by June 15, 2019. Despite air quality improvements in recent years, higher ozone levels were experienced throughout California (including in Coachella Valley) in 2017 and 2018, resulting in levels greater than the 1997 8-hour ozone standard. Ozone levels in the Coachella Valley are primarily impacted by pollutants directly transported from the SCAB. Because of recent high ozone levels, the Coachella Valley was not be able to meet the 1997 8-hour ozone standard by June 2019.

Given that additional time is needed to bring the Coachella Valley into attainment of the 1997 8-hour standard, SCAQMD staff recommended submitting a formal request to the USEPA to reclassify the Coachella Valley from "severe" to "extreme" for the 1997 8-hour ozone standard based on the monitoring data indicating attainment was not practicable by the current attainment date. The SCAQMD conducted two public meetings for the purpose of soliciting information, comments, and suggestions from the public, affected businesses, and stakeholders regarding this voluntary reclassification request. On June 7, 2019, the SCAQMD's Governing Board approved the request for reclassification of the Coachella Valley and the formal request was submitted to the USEPA through CARB. The SCAQMD scheduled a public meeting on July 19, 2019 to provide an update on the progress and challenges in meeting the 1997 8-hour ozone NAAQS in the SCAB. SCAQMD is currently soliciting additional information, comments, and suggestions from the public, affected businesses, and all stakeholders on this matter.

Until the 2016 AQMP is adopted by the USEPA, the 2012 AQMP continues to serve as the planning document for the Basin. On December 7, 2012, the SCAQMD adopted the 2012 Air Quality Management Plan. The 2012 AQMP set forth a comprehensive and integrated program leading the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, to satisfy the planning requirements of the CAA, and to provide an update to the Basin's commitments towards meeting the federal 8-hour ozone standards. The 2012 AQMP also serves to satisfy the recent USEPA proposed requirement for a new attainment demonstration of the revoked 1-hour ozone standard, as well as a VMT emissions offset demonstration. Specifically, the 2012 AQMP serves as the official SIP submittal for the federal 2006 24-hour $PM_{2.5}$ standard, for which USEPA established a due date of December 14, 2012. In addition, the 2012 AQMP updates specific new control measures and commitments for emissions reductions to implement the attainment strategy for the 8-hour ozone SIP, and thus help to reduce reliance on CAA Section 182(e)(5) long-term measures.

Once approved by the SCAQMD's Governing Board and CARB, the 2012 AQMP was submitted to the USEPA as the 24-hour $PM_{2.5}$ SIP addressing the 2006 $PM_{2.5}$ NAAQS and as a limited update to the approved 8-hour ozone SIP. The 1-hour ozone attainment demonstration and VMT emissions offset demonstration was also submitted through CARB to the USEPA.

The ozone portion of the 2007 AQMP has been approved by USEPA into the SIP. The "moderate" 24- hour $PM_{2.5}$ elements of the 2012 AQMP have also been approved by USEPA and, in January 2016, the USEPA approved the SCAB's re-designation as a "serious" nonattainment area for $PM_{2.5}$. These approvals include SIP revisions submitted in response to USEPA's initial findings.

The SCAQMD continues to implement the 2012 AQMP, which received a limited approval and limited disapproval by USEPA on April 14, 2016. Progress in implementing the 2012 AQMP can be measured by the progress in implementing control measures and the resulting emission reductions. Emission reduction commitments and reductions which will be achieved in 2014 and 2023 through already-adopted measures are based on the emission inventories and milestone years from the 2012 AQMP.

The 2012 AQMP also includes an update on the air quality status of the Salton Sea Air Basin (SSAB) in the Coachella Valley, including a discussion of the emerging issues of ultrafine particle and near-roadway exposures, health effects of $PM_{2.5}$, and energy supply and demand issues affecting the Basin and their relationship to air quality. As noted above, in granting approval in January 2016, the USEPA required SIP revisions to the $PM_{2.5}$ program.

The 2012 AQMP incorporates the most recent planning assumptions and the best available information. including: revised stationary point and area source emissions inventories, on-road and off-road mobile source emissions inventories based on CARB's latest EMFAC2011 and Off-Road Models, the use of new meteorological episodes for ozone and expanded air quality modeling analysis, and the latest demographic growth forecasts based on SCAG's "2012-2035 Regional Transportation Plan/Sustainable Communities Strategy" (April 4, 2012) (2012-2035 RTP).

2.4.2 Air Quality Attainment Status

Areas that meet the AAQS are classified as "attainment" areas while areas that do not meet these standards are classified as "nonattainment" areas. The severities of the classifications for ozone nonattainment include and range in magnitude from marginal, moderate, serious, severe, and extreme. The attainment status for the SCAB is included in Table AQ-2 (Attainment Status for the South Coast Air Basin).

Table AQ-2
ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	State Status	Federal Status
Ozone (1-hour)	Extreme Nonattainment	Extreme Nonattainment (under the prior standard)
Ozone (8-hour)	Extreme Nonattainment	Severe-17 (may petition for Extreme)
PM_{10}	Serious Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance

Source: California Air Resources Board

The SCAB is designated as CAAQS attainment for SO_2, lead, and sulfates. Areas designated as "Severe-17" for ozone must meet attainment of the 8-hour standard by 2021 (2024 if reclassified to "Extreme"). Areas considered as serious nonattainment of the PM_{10} standards must have reached attainment by the end of 2006, or as expeditiously as possible. To date, the Basin still does not meet that standard. The $PM_{2.5}$ attainment date was to be met in the year 2015.

2.4.3 State Planning Requirements

- **Executive Order S-3-05**. Under Executive Order S-3-05, as signed by Governor Arnold Schwarzenegger on June 1, 2005, the following GHG emission reduction targets were established for California: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels. In March 2006, the California Environmental Protection Agency (CalEPA) published a Climate Action Team (CAT) report detailing how State agencies could implement a series of policies to meet the 2010 and 2020 goals. As indicated therein, among the policy actions that are cited are "smart land use and intelligent transportation." The CAT states that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

- **California Health and Safety Code**. Section 41700 of the H&SC requires that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, response, health, or safety of any such person or the public, or which causes, or have a natural tendency to cause, injury or damage to business or property."

  Section 39606(b) of the H&SC authorizes the CARB to adopt standards for ambient air quality "in consideration of public health and safety, and welfare, including but not limited to health, illness, irritation to the senses, aesthetic value, interference with visibility, and the effects of air pollution on the economy." The objective of AAQS is to provide a basis for preventing or abating adverse health or welfare effects of air pollution (17 CCR 70101).

  Section 39607(e) of the H&SC requires that the CARB establish and periodically review area designation criteria. The CARB makes area designations for the following nine pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns (PM_{10}), sulfates (SO_4), lead (Pb), hydrogen sulfide (H_2S), and visibility-reducing particles. Assembly Bill 2595, known as the California Clean Air Act (CCAA), divided nonattainment areas into categories with progressively more stringent requirements (Sections 40918-40920.5, H&SC). As specified, it is the responsibility of each APCD and AQMD within the State to attain and maintain CAAQS. The CCAA requires that an attainment plan be developed by all nonattainment districts for O_3, CO, sulfur oxides (SOx), and nitrogen oxides (NOx) that are either receptors or contributors of transported air pollutants. The CAAQS are listed in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants). Areas meeting CAAQS are classified as attainment; areas not meeting CAAQS are classified as nonattainment.

  Assembly Bill 32 (California Global Warming Solutions Act of 2006), codified in Section 38500 et seq. of the H&SC, established a comprehensive program to reduce GHG by 2020

and identifies several major requirements that CARB is required to implement, including: (1) adoption and implementation of a list of discrete and early action GHG reduction measures; (2) approval of a Statewide 1990 emission level that becomes the Statewide 2020 emissions limits; (3) adoption of mandatory GHG reporting rules for significant GHG sources; and (4) adoption of regulations to achieve the maximum technologically feasible and cost-effective reductions.

2.4.4 Federal Clean Air Act Requirements

The Federal Clean Air Act of 1970 (42 U.S.C. Section 7401 et seq.) requires any new major stationary sources of air pollution and any major modifications to major stationary sources to obtain an air pollution permit before commencing construction. New Source Review (NSR) requirements (42 U.S.C. 7411) differ depending on the attainment status of the area where the major facility is located. "Prevention of Significant Deterioration" (PSD) requirements (42 U.S.C. 7470-7491) apply in areas that are in attainment of the NAAQS. Nonattainment area NSR requirements apply to areas that have not been able to demonstrate compliance with the NAAQS.

Section 108 of the CAA directs the USEPA to list pollutants that may reasonably be anticipated to endanger public health and welfare and to issue air quality criteria for those pollutants. The USEPA has set NAAQS for the following pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), and sulfur dioxide (SO_2). The NAAQS for those primary pollutants are listed in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants). Section 176(c) of the CAA prohibits federal agencies from taking actions in NAAQS nonattainment or maintenance areas that do not conform to the SIP for the attainment and maintenance of NAAQS pursuant to Section 110(a) of the CAA.

2.5 Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the general project area are best documented by measurements made by the SCAQMD. The project site is located in the east end of Source Receptor Area (SRA) 17 (Central Orange County).

The SCAQMD maintains an air quality monitoring station for this area that monitors all criteria pollutants. The results are included in Table AQ-3 (Air Quality Monitoring Summary for the Central Orange County Monitoring Station). The monitoring station shows that ozone levels continue to exceed the California and national hourly standards; however, that exceedance appears to be decreasing over the 5 years.

Although NO_2 measurements indicate that no standards were exceeded, NO_2 is a precursor to O_3 formation, which continually does exceed the standards. Hydrocarbons and NO_2 are emitted by both mobile and stationary sources, with the greater portion emanating from mobile sources in the SCAB. Pollutants emitted from upwind cities react during their transport downwind to produce the oxidant concentrations measured at the Central Orange County monitoring station. All upwind areas within the SCAB, therefore, contribute to the O_3 production. These concentrations increase during the summer, with concentrations increasing from the late morning through the afternoon.

With regard to PM, no trend is readily apparent. The State standard for PM_{10} was exceeded 57 of the 1,732 (3.29 percent) in the last five years that it was monitored. The federal standard has not been violated in more than the last five years. The federal standard for $PM_{2.5}$ was, however, exceeded 16 of the 1,648 times (0.97 percent) in the last five years. Suspended PM (both total suspended particulates and PM_{10} and $PM_{2.5}$) is a mixture of natural and manmade materials that

include soil particles, biological materials, sulfates, nitrates, organic compounds, and lead. Smaller particles (PM_{10}, $PM_{2.5}$) are created by the combustion of fossil fuels and are also given off from tire wear and brake dust and wildfires.

Table AQ-3
AIR QUALITY MONITORING SUMMARY FOR THE CENTRAL ORANGE COUNTY MONITORING STATION
(Number of days standards were exceeded and maximum levels during such violations[1])

State and Federal Pollutant/Standard	2015	2016	2017	2018	2019
Ozone (O_3)					
State 1-hour > 0.09 ppm	1	2	0	0	1
State 8-hour >0.07 ppm	1	4	4	1	1
Federal 1-hour > 0.124 ppm	0	0	0	0	1
Federal 8-hour > 0.070 ppm	1	4	4	1	1
Maximum 1-hour concentration (ppm)	0.100	0.103	0.090	0.112	0.096
Maximum 8-hour concentration (ppm)	0.080	0.074	0.076	0.071	0.082
Carbon Monoxide (CO)					
State 8-hour ≥ 9.1 ppm	0	0	0	0	0
Maximum 8-hour concentration (ppm)	2.2	2.1	2.1	1.9	1.3
Nitrogen Dioxide (NO_2)					
State 1-hour > 180 (ppb)	0	0	0	0	0
Maximum 1-hour concentration (ppb)	59.1	64.3	81.2	66.0	59.4
Inhalable Particulates (PM_{10})[2]					
State 24-hour > 50 µg/m^3	11/363	3/353	17/332	13/320	13/364
Federal 24-hour > 150 (µg/m^3)	0/363	0/353	0/332	0/320	0/364
Maximum 24-hour concentration (µg/m^3)	66	74	128	129	127
Inhalable Particulates ($PM_{2.5}$)[2]					
Federal 24-hour > 35 µg/m^3	3/295[3]	1/349	6/305[3]	3/353	3/346
Maximum 24-hour concentration (µg/m^3)	45.8[3]	44.45	53.90[3]	54.10	36.10

Notes:
1. With the exception of inhalable particulates (PM_{10} and $PM_{2.5}$), all values are based on 365 days per year.
2. Violations per number of samples.
3. Incomplete data.

Source: South Coast Air Quality Management District

2.6 Standard Conditions and Uniform Codes

All projects constructed in the SCAB are subject to standard conditions and uniform codes. Compliance with these provisions is mandatory and, as such, does not constitute mitigation under CEQA. Those conditions specific to air quality include adherence to the following SCAQMD rules and regulations:

- Rule 403 setting requirements for dust control associated with construction activities.
- Rules 431.1/431.2 requiring the use of low sulfur fuel for stationary construction equipment.
- Rule 1108 setting limitations on ROG content in asphalt.
- Rule 1113 setting limitations on ROG content in architectural coatings.
- Rule 1143 setting limitations on ROG content in consumer paint thinners and solvents.

Furthermore, the project shall comply with Title 24 of the California Code of Regulations (CCR) energy-efficient design requirements as well as the provision of window glazing, wall insulation, and efficient ventilation methods in accordance with the requirements of the Uniform Building Code (UBC).

During construction, the project is subject to SCAQMD Rule 403 (Fugitive Dust). SCAQMD Rule 403 does not require a permit for construction activities but sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the SCAB. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of such dust remains visible in the atmosphere beyond the property line of the emissions source. Rule 403 also prohibits a construction site from causing an incremental PM_{10} concentration impact at the property line of more than 50 $\mu g/m^3$ as determined through PM_{10} high-volume sampling. The concentration standard and associated PM_{10} sampling do not apply if specific measures identified in the rule are implemented and appropriately documented.

In accordance with Rule 403, the SCAQMD requires that contractors implement "Best Available Control Technology" (BACT) for construction activities. Rule 403 identifies two sets of specific measures, one for projects less than 50 acres and another set of conditions for projects that exceed 50 acres. The requirements applicable to the project are included in Table AQ-4 (South Coast Air Quality Management District – Best Available Control Measures). These measures are regulatory requirements and, as such, do not constitute mitigation under CEQA.

2.7 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 considered sensitive to air pollution since residents (including children and the elderly) tend to be at home for extended time periods, resulting in sustained exposure to any present pollutants. Schools are considered sensitive receptors since 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 since 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 proposed project includes a "place of worship," a "Hebrew Sunday School," and a "private pre-school" and could, therefore, be considered a moderately sensitive land use. Additionally, the project is bordered on the west by Neuro Restorative, on the south by a private parking lot associated with Neuro Restorative (with residential units just beyond), and by residential units to the immediate east. Residential units are also located on the north side of E. 17th Street, directly across from the project site.

3.0 THRESHOLD OF SIGNIFICANCE CRITERIA

Presented below are the SCAQMD's recommended thresholds of significance criteria relative to this topical issue. In accordance therewith, the proposed project would normally be deemed to produce a significant air quality impact if the project or if project-related activities were to:

Table AQ-4
SCAQMD REQUIRED BEST AVAILABLE CONTROL MEASURES
(Applicable to all construction activity sources)

Source Category	Control Measures	Guidance
Backfilling	Stabilize backfill material when not actively handling; and Stabilize backfill material during handling; and Stabilize soil at completion of activity	Mix backfill soil with water prior to moving; Dedicate water truck or high capacity hose to backfilling equipment; Empty loader bucket slowly so that no dust plumes are generated; Minimize drop height from loader bucket.
Clearing and Grubbing	Maintain stability of soil through prewatering of site prior to clearing and grubbing; and Stabilize soil during clearing and grubbing activities; and Stabilize soil immediately after clearing and grubbing activities.	Maintain live perennial vegetation where possible; Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing Forms	Use water spray to clear forms or use sweeping and water spray to clear forms or use vacuum system to clear forms.	Use of high-pressure air to clear forms may cause exceedance of rule requirements.
Crushing	Stabilize surface soils prior to operation of support equipment; and Stabilize material after crushing.	Follow permit conditions for crushing equipment; Pre-water material prior to loading into crusher; Monitor crusher emissions opacity; Apply water to crushed material to prevent dust plumes.
Cut and Fill	Pre-water soils prior to cut and fill activities; and Stabilize soil during and after cut and fill activities.	For large sites, pre-water with sprinklers or water trucks and allow time for penetration; and Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts.
Demolition Mechanical/Manual	Stabilize wind erodible surfaces to reduce dust; and Stabilize surface soil where support equipment and vehicles will operate; Stabilize loose soil and demolition debris; and Comply with Rule 1403.	Apply water in sufficient quantities to prevent the generation of visible dust plumes.
Disturbed Soil	Stabilize disturbed soil throughout the construction site; Stabilize disturbed soil between structures	Limit vehicular traffic and disturbances on soils where possible; If interior block walls are planned, install as early as possible; Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earth-Moving Activities	Pre-apply water to depth of proposed cuts; Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; Stabilize soils once earth-moving activities are complete.	Grade each project phase separately, timed to coincide with construction phase; Upwind fencing can prevent material movement on site; Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Importing/Exporting of Bulk Materials	Stabilize material while loading to reduce fugitive dust emissions; Maintain at least six inches of freeboard on haul vehicles; Stabilize material while transporting to reduce fugitive dust emissions; Stabilize material while unloading to reduce fugitive dust emissions; Comply with California Vehicle Code (CVC) Section 23114.	Use tarps or other suitable enclosures on haul trucks; Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage; Comply with track-out prevention/mitigation requirements; Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	Stabilize soils, materials, slopes	Apply water to materials to stabilize; Maintain materials in a crusted condition; Maintain effective cover over materials; Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes; Hydroseed prior to rain season.
Road Shoulder Maintenance	Apply water to unpaved shoulders prior to clearing; Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs; Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.

Table AQ-4 (Continued)
SCAQMD REQUIRED BEST AVAILABLE CONTROL MEASURES
(Applicable to all construction activity sources)

Source Category	Control Measures	Guidance
Screening	Pre-water material prior to screening; Limit fugitive dust emissions to opacity and plume length standards; Stabilize material immediately after screening.	Dedicate water truck or high capacity hose to screening operation; Drop material through the screen slowly and minimize drop height; Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging Areas	Stabilize staging areas during use; Stabilize staging area soils at project completion.	Limit size of staging area; Limit vehicle speeds to 15 miles per hour; Limit number and size of staging area entrances/exits.
Stockpiles/Bulk Material Handling	Stabilize stockpiled materials, and stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	Add or remove material from the downwind portion of the storage pile; Maintain storage piles to avoid steep sides or faces.
Traffic Areas for Construction Activities	Stabilize all off-road traffic and parking areas; Stabilize all haul routes; Direct construction traffic over established haul routes.	Apply gravel/paving to all haul routes as soon as possible to all future roadway areas; Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	Stabilize surface soils where trencher or excavator and support equipment will operate; Stabilize soils at the completion of trenching activities.	Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching; Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck Loading	Pre-water material prior to loading; Ensure that freeboard exceeds six inches (CVC Section 23114)	Empty loader bucket such that no visible dust plumes are created; Ensure that the loader bucket is close to the truck to minimize drop height while loading.
Turf Overseeding	Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; Cover haul vehicles prior to exiting the site.	Haul waste material immediately off-site.
Unpaved Roads/Parking Lots	Stabilize soils to meet the applicable performance standards; Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.
Vacant Land	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	-

Source: South Coast Air Quality Management District

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standards.
- Expose sensitive receptors to substantial air pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

As indicated in Section 15064(i)(1) of the State CEQA Guidelines, "cumulatively considerable" is defined to mean "that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

In order to determine whether or not the proposed project would cause a significant effect on the environment, the impact of the project must be determined by examining the types and levels of emissions generated and its impacts on those factors that affect air quality. To accomplish this determination of significance, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated and have been provided to assist local agencies in determining whether or not a proposed action is significant under CEQA. From a CEQA perspective, if the identified thresholds are exceeded, then the proposed action should be considered significant relative to air quality.

While the final determination of whether or not a project is significant is within the purview of the CEQA lead agency, the SCAQMD recommends that the following air pollution thresholds be used in determining whether the construction and operational phases of a proposed project are significant. As recommended by the SCAQMD, if the CEQA lead agency finds that the proposed project has the potential to exceed any of these air pollution thresholds, the project should be considered significant under CEQA.

3.1 Construction Phase - Thresholds of Significance

The following significance thresholds for air quality have been formulated by the SCAQMD on a daily basis for construction emissions:

- 75 pounds per day for ROG
- 100 pounds per day for NOx
- 550 pounds per day for CO
- 150 pounds per day of SOx
- 150 pounds per day for PM_{10}
- 55 pounds per day for $PM_{2.5}$

During construction, if any of the identified daily air pollutant thresholds are exceeded by the proposed project, then the project's air quality impacts may be considered significant.

3.2 Operational Phase - Thresholds of Significance

- **Criteria Pollutants**. Specific criteria air pollutants have been identified by the SCAQMD as pollutants of special regional concern. Based upon this categorization, the following significance thresholds have been formulated by the SCAQMD for project operations:

  - ◊ 55 pounds per day of ROG
  - ◊ 55 pounds per day of NOx
  - ◊ 550 pounds per day of CO
  - ◊ 150 pounds per day of SOx
  - ◊ 150 pounds per day of PM_{10}
  - ◊ 55 pounds per day for $PM_{2.5}$

  Projects within the SCAB with daily operational-related emissions that exceed any of the above emission thresholds may be considered significant. The SCAQMD indicates that they consider a project to be mitigated to a level of insignificance if its primary effects are mitigated below the thresholds provided above (Chapter 6, Handbook).

- **Greenhouse Gasses**. On September 28, 2010, the SCAQMD presented their proposed significance thresholds for GHG emissions. At that time they determined a Tier 3 screening significance threshold level of 10,000 metric tons of CO_2 equivalents per year (MTons CO_2E/year) for industrial projects to be adopted where the SCAQMD is the lead agency. SCAQMD staff has also proposed to extend the industrial GHG significance threshold for use by all lead agencies.

  Similarly, with regard to numerical residential/commercial GHG significance thresholds, SCAQMD staff presented two options that CEQA lead agencies could choose from.

  - ◊ Option #1 presents separate numerical thresholds for residential projects (3,500 MTons CO_2e/year), commercial projects (1,400 MTons CO_2e/year), and mixed-use projects (3,000 MTons CO_2e/year).
  - ◊ Option #2 presents a single numerical threshold for all nonindustrial projects of 3,000 MTons CO_2e/year. If a CEQA lead agency chooses one option, it must consistently use that same option for all projects where it is a CEQA lead agency.

  The SCAQMD proposal is to recommend the use of Option #2 but allows CEQA lead agencies to choose Option #1 if they prefer that approach.

3.3 Local Emission Standards

In addition to those mass daily threshold values presented above, projects that have the ability to exceed or add measurably to an existing excess of the ambient concentrations presented in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants) may be considered significant. The following localized significance thresholds have been formulated by the SCAQMD for individual projects:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm
- California State 1-hour NO_2 standard of 0.18 ppm
- SCAQMD 24-hour construction PM_{10} and $PM_{2.5}$ standards of 10.4 $\mu g/m^3$
- SCAQMD 24-hour operational PM_{10} and $PM_{2.5}$ standards of 2.5 $\mu g/m^3$

If ambient levels already exceed a State or federal standard, then project emissions are considered significant if they increase ambient concentrations by a "measurable amount." In the case of CO, the SCAQMD defines a measurable amount as 1.0 ppm or more for the 1-hour CO concentration or 0.45 ppm or more for the 8-hour CO concentrations; however, since the SCAB is attainment of all CO standards, elevated CO concentrations are no longer a concern. The SCAQMD indicates that they consider a project to be mitigated to a level of insignificance if its secondary effects are mitigated below the above referenced thresholds.

4.0 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

As illustrated in Figure AQ-1 (Chabad Jewish Center of Tustin - Project Site [18802 E. 17th Street, Santa Ana 92705), the project site currently includes an existing single-family residential unit. This existing land use would be removed during demolition. As illustrated in Figure AQ-2 (Chabad Jewish Center of Tustin - Conceptual Site Plan), the subsequent use includes the construction and operation of a "place of worship a "Hebrew Sunday School," and a "private pre-school" with a total floor area of approximately 9,850± square feet on the 0.88-acre parcel of land.

The approximately 9,850± square-foot, single-story "place of worship," including an approximately 1,080± square foot "accessory religious education room" which serves the dual purpose of providing classroom space for both the "Hebrew Sunday School" and the "private preschool." Although each of those activities will operate during distinct and non-overlapping hours, in order to ensure that the resulting analysis presents a "worst-case" air quality scenario, although operating under the same roofline, for analytical purposes, the proposed project's total square footage has been modeled as the combination of those two functional spaces, inclusive of the entirety of the synagogue and all its associated interior spaces (9,850± square feet) and the "accessory religious education room" (1,080± square feet) as if to assume that the "accessory religious education room" functioned as an independent use therefrom. For modeling purposes, a total of approximately 10,930± square feet (9,850 + 1,080 = 10,930) has been assumed herein. The resulting modeled emissions would, therefore, be projected to exceed the actual emissions associated with the proposed project.

Projected air emissions are calculated using the California Emissions Estimator Model (CalEEMod Version 2020.4.0) distributed by the SCAQMD. The CalEEMod model uses EMFAC2017 emissions factors for vehicle traffic and the OFFROAD2011 emissions factors for construction equipment. Operational vehicle emissions projected by the model were scaled to represent the latest ITE values as provided in "VMT Analysis: Chabad Jewish Center of Tustin, County of County Relocation and Expansion Project" (Sasaki Transportation Services, May 15, 2021) (VMT Analysis) using the methodology presented in Section 1.0 (Methodology) herein.

For the purposes of this analysis, construction is estimated to begin on February 2, 2022 following the CalEEMod (Version 2020.4.0) default construction schedule. Based on the CalEEMod default construction schedule of 123 actual construction days (does not include weekends), this would complete construction on July 22, 2022 allowing for occupancy in that year. Daily construction emissions are based on the higher of the summer or winter emissions, regardless of when they actually occur. The subsequent occupation of the site in 2022 is also based on the CalEEMod model using the traffic-projections provided in the VMT Analysis.

The proposed project would relocate an existing "place of worship" and remove an existing single-family residential unit. For the purposed of this analysis, the proposed project is assumed to "stand on its own merits" as a separate entity and the reduction in overall emissions associated with that relocation and that removal, including their associated emissions, have not been considered herein.

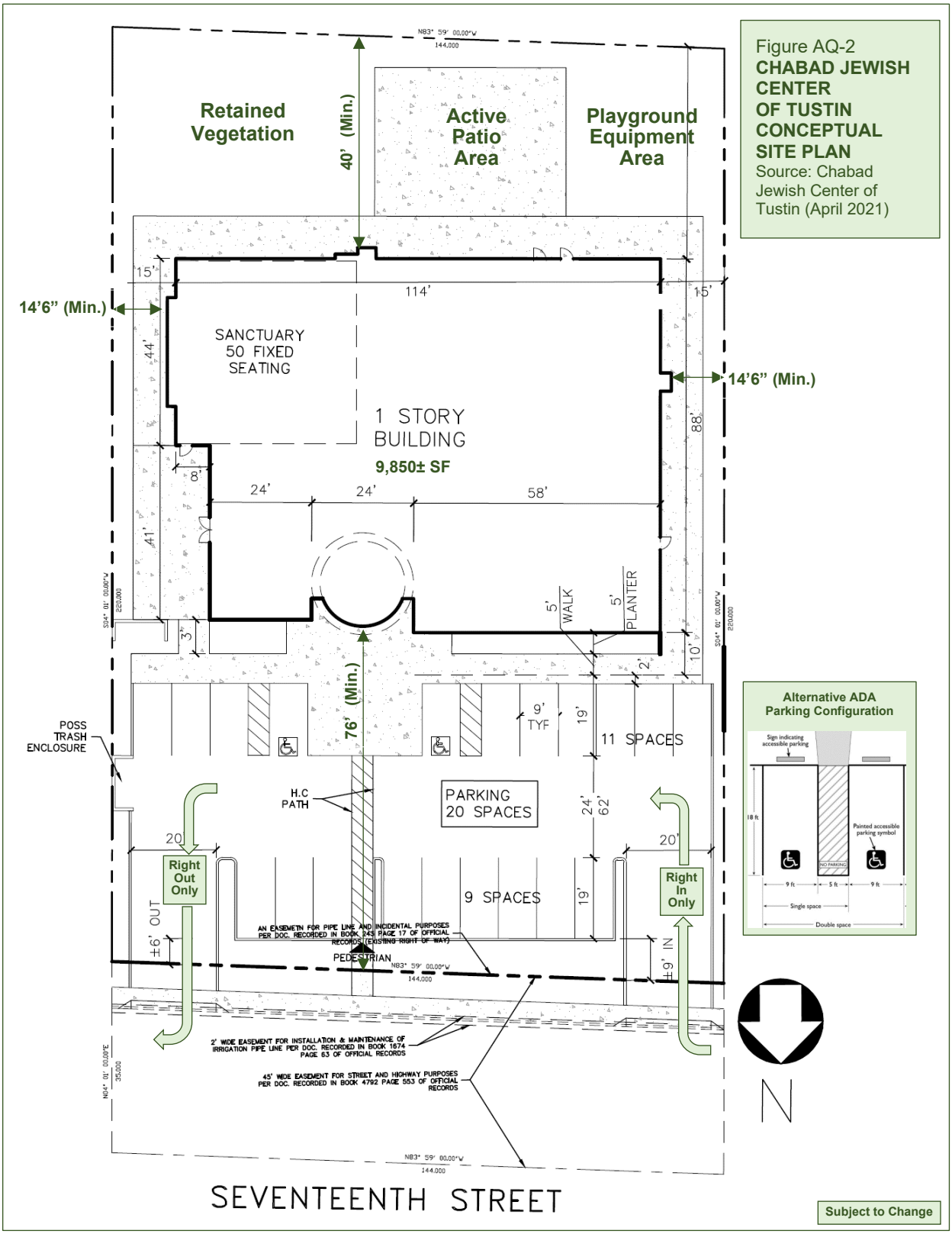

Figure AQ-2
CHABAD JEWISH CENTER OF TUSTIN CONCEPTUAL SITE PLAN
Source: Chabad Jewish Center of Tustin (April 2021)

The analysis follows the format included in Appendix G (Environmental Checklist Form) of the State CEQA Guidelines, specifically Section III (Air Quality) and Section VII (Greenhouse Gas Emissions), addressing each issue included in those sections, respectively.

4.1 Conflict with or Obstruct Implementation of the Applicable Air Quality Plan

- **Less than Significant Impact**. CEQA requires that projects be consistent with the AQMP. A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the AQMP in the following ways: (1) it fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are fully addressed; and (2) it provides the local agency with ongoing information assuring local decision-makers that they are making real contributions to clean air goals contained in the AQMP.

  Only new or amended general plan elements, specific plans, and regionally significant projects need to undergo a consistency review. This is because the AQMP strategy is based on projections from local general plans. Projects that are consistent with the local general plan are, therefore, considered consistent with the air quality management plan. The "North Tustin Specific Plan" (NTSP) specifically notes that the land uses located along E. 17th Street will be subject to additional traffic and noise as time goes on, and proposes that less sensitive uses, that still conform with residential land use designations, be installed along this corridor.

  As proposed, the Applicant seeks approval to relocate the existing Chabad Jewish Center of Tustin through the construction and occupation of the 9,850± square-foot structure on 0.88 acres of land. As previously noted, in order to ensure that the resulting analysis presents a "worst-case" scenario, although operating under the same roofline, for analytical purposes, the proposed project's total square footage has been modeled as the combination of the proposed synagogue (9,850± square feet), inclusive of all interior space associated therewith, and the "accessory religious education room" (1,080± square feet) as a separate and distinct use, for a total of approximately 10,930± square feet (9,850 + 1,080 = 10,930). To the extent that the artificially inflated project size produces potential significant air quality impacts, more refined modeling can be subsequently performed.

  The project represents infill development. Neither the construction (Table AQ-5) nor the operation (Table AQ-6) of the project is projected to exceed the daily threshold values suggested by the SCAQMD. Additionally, the project would not result in significant localized air quality impacts. As such, the project is consistent with the goals of the AQMP and, in that respect, does not present a significant air quality impact.

4.2 Cumulatively Considerable Net Increase of any Criteria Pollutant for which the Project Region is Nonattainment under an Applicable Ambient Air Quality Standard

4.2.1 Construction Impacts

- **Less than Significant Impact**. The potential air quality impacts associated with and attributable to the construction and operation of the proposed project are separately addressed below.

  Air quality impacts may occur during site preparation and construction activities required to implement the proposed land use. Major sources of emissions during construction include exhaust emissions, fugitive dust generated as a result of soil disturbance during site

preparation and grading activities, and the emission of ROGs during the painting of the structures.

As noted, for modeling purposes, the project involves the construction of an artificially inflated approximately 10,930± square-foot multi-function land use. Based on the proposed land use, the CalEEMod computer model allocates (by default) the construction over 123 working days. This schedule was retained for analytical purposes. Construction is assumed to begin on February 2, 2022 and end on July 22, 2022, thus allowing for full occupancy in 2022.

The project site includes an existing single-family residence to be removed at project implementation. The CalEEMod emissions model estimates (by default) that the resulting demolition and removal would generate 23 haul trips over the 10-day demolition period or, on average, about 2 haul trips per day.

Additionally, the existing home has a large swimming pool and this would require removal, filling, and compacting during the early stages of construction. For the purposes of this analysis, the pool is estimated at 5,000 cubic feet or about 185 cubic yards and the fill material would be delivered to the site during the grading period. CalEEMod estimates the pools removal, filing, and compaction would require 23 truck hauls during the 2-day grading period or, on average about 12 trucks each day.

With respect to the installation of paving, the CalEEMod model calculates the equipment and worker trip emissions but does not calculate the off-gas emissions from the application of the asphalt. The CalEEMod sets a default area paved for structures that is neither user-adjustable nor is it disclosed in any of the CalEEMod's published literature. On the other hand, the CalEEMod literature does indicate that the model uses a value of 2.62 pounds of ROG per acre paved divided over the paving schedule in the development of parking lots. An area of approximately 0.15 acre would include parking, driveways, and landscape areas for pedestrian paths paved over the default period of 5 working days:

0.15 acre x 2.62 pounds per acre / 5 days = 0.08 pound per day

SCAQMD's Rule 403 governs fugitive dust emissions from construction projects. This rule sets forth a list of control measures that must be undertaken for all construction projects to ensure that no dust emissions from the project are visible beyond the property boundaries. Adherence to Rule 403 is mandatory and, therefore, does not constitute mitigation under CEQA.

The following analysis assumes the use of the minimal measures specified in Rule 403 that overlap between the rule and the CalEEMod model. These include: (1) soil stabilizers shall be applied to unpaved roads; (2) ground cover shall be quickly applied in all disturbed areas; and (3) the active construction site shall be watered twice daily. The model assigns a control efficiency of 55 percent for twice daily watering and a similar efficiency was assumed for other controlled dust-producing, heavy equipment activities. In actuality, Rule 403 specifies several measures that the CalEEMod model does not consider (Table AQ-4), so the modeled PM_{10} and $PM_{2.5}$ emissions associated with fugitive dust are considered to be overly conservative.

Table AQ-5 (Comparison of Projected Construction Emissions and Daily Criteria Values) includes the daily emissions projected for site construction. Note that all emissions are within

their respective threshold values and the impact is, therefore, less than significant. All values are so low such that even based on an artificially inflated project size of 10,930± square feet and assuming that all phases were to overlap, the resulting air quality impacts remain at a less-than-significant level.

Table AQ-5
COMPARISON OF PROJECTED CONSTRUCTION EMISSIONS AND DAILY CRITERIA VALUES
(pounds/day)[1]

Source	ROG	NOx	CO	SO_2	PM_{10} Dust	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total
Demolition										
Off Road Diesel	0.71	6.41	7.47	0.01	0.49	0.34	0.83	0.07	0.32	0.40
On Road Diesel	0.01	0.37	0.10	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Worker Trips	0.03	0.02	0.33	0.00	0.11	0.00	0.11	0.03	0.00	0.03
Totals	0.75	6.80	7.90	0.01	0.64	0.34	0.98	0.11	0.32	0.44
Site Preparation										
Off Road Diesel	0.58	6.93	3.96	0.01	0.53	0.26	0.79	0.06	0.24	0.29
Worker Trips	0.02	0.01	0.14	0.00	0.06	0.00	0.06	0.01	0.00	0.02
Totals	0.60	6.94	4.12	0.01	0.59	0.26	0.85	0.07	0.24	0.31
Grading										
Off Road Diesel	1.08	12.00	5.94	0.01	1.08	0.52	1.60	0.52	0.32	0.52
On Road Diesel	0.05	1.86	0.51	0.01	0.20	0.01	0.21	0.05	0.01	0.06
Worker Trips	0.03	0.02	0.26	0.00	0.08	0.00	0.09	0.02	0.00	0.02
Totals	1.16	13,88	6.71	0.02	1.37	0.53	1.90	0.59	0.33	0.36
Building Construction										
Off Road Diesel	0.69	7.03	7.15	0.01	0.00	0.37	0.37	0.00	0.34	0.34
Vendor Trips	0.01	0.09	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker Trips	0.02	0.01	0.59	0.06	0.06	0.00	0.06	0.01	0.00	0.02
Totals	0.72	7.13	7.62	0.07	0.07	0.37	0.44	0.01	0.34	0.36
Asphalt Paving										
Off-Gas	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Road Diesel	0.65	5.92	7.03	0.01	0.00	0.30	0.30	0.00	0.28	0.28
Worker Trips	0.06	0.04	0.59	0.00	0.20	0.00	0.20	0.05	0.00	0.05
Asphalt Totals	0.79	5.96	7.62	0.01	0.20	0.30	0.50	0.05	0.28	0.33
Coating										
Off-Gas	20.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Road Diesel	0.20	1.41	1.81	0.00	0.00	0.08	0.08	0.00	0.08	0.08
Worker Trips	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Coating Totals	20.46	1.41	1.84	0.00	0.01	0.08	0.09	0.00	0.08	0.08
Daily Threshold	75	100	550	150	→	→	150	→	→	55
Exceeds Threshold?	No	No	No	No			No			No

Notes:
1. The CalEEMod model projects summer and winter emissions and the higher of the two values is included in the table.

Source: Environmental Impact Sciences / Synectecology

4.2.2 Operational Impacts

- **Less than Significant Impact**. The major source of long-term air quality impacts is that associated with the emissions produced from project-generated vehicle trips. Stationary sources add only minimally to these values.

As previously noted, this analysis assumes that the proposed project includes the operation of a "place of worship" and private pre-school. In addition, the proposed project includes the relocation of an existing facility to a site that currently includes a single-family residential unit. In order to present a worst-case scenario, the project has been assessed as a new land use and no off-setting credit has been taken for either the removal of the existing residence or the relocation of the existing facility.

The CalEEMod model reports the day with the highest emissions production. Based on the nature of the facility's operation, the estimation of Saturday and Sunday values has been used in the calculation of the annual GHG emissions. In the case of peak day emissions, both summer and winter scenarios were modeled and the higher of the two values is included in Table AQ-6 (Comparison of Projected Peak [Weekday] and Annual Average Daily Operational Emissions for the School and Daily Criteria Values). All emissions are within their criteria values and the resulting impact is less than significant.

Table AQ-6
COMPARISON OF PROJECTED PEAK (WEEKDAY) AND ANNUAL AVERAGE DAILY OPERATIONAL EMISSIONS FOR THE SCHOOL AND DAILY CRITERIA VALUES
(pounds/day)[1]

Source	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Peak Day Emissions						
Mobile Sources[2]	0.29	0.39	2.53	0.01	0.56	0.15
Natural Gas	0.01	0.06	0.05	0.00	0.00	0.00
Structural Maintenance	0.03	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.22	0.00	0.00	0.00	0.00	0.00
Landscape Maintenance	0.00	0.00	0.00	0.00	0.00	0.00
Total Daily Emissions	0.55	0.45	2.58	0.01	0.56	0.15
Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
1. The CalEEMod model projects summer and winter emissions. These can differ for mobile sources and the higher of the two values were included in the table.
2. Value uses the 9th Edition ITE default scaled to STS mileage. See Section 1.0 for methodology.

Source: Environmental Impact Sciences / Synectecology

Table AQ-6 (Comparison of Projected Peak [Weekday] and Annual Average Daily Operational Emissions for the School and Daily Criteria Values) demonstrates that even if no land uses were removed, even based on the use of an artificially inflated project size (10,930± square feet), the proposed project would not result in any significant air quality impacts with respect to the daily threshold levels suggested by the SCAQMD.

4.3 Expose Sensitive Receptors to Substantial Pollutant Concentrations

4.3.1 Short-Term Localized Impacts

- **Less than Significant Impact**. In addition to the mass daily threshold standards presented above, project construction has the potential to raise localized ambient pollutant concentrations. This could present a significant impact if these concentrations were to

exceed the ambient air quality standards included in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants) at receptor locations.

The SCAQMD has developed screening tables for the construction and operation of projects up to five acres in size. These tables are included in the SCAQMD's "Final Localized Significance Threshold Methodology" (June 2003) and are periodically updated on the SCAQMD's Internet website. The most current update was in 2008 and these data are used in this analysis.

It should be noted that the emissions values included in the screening tables are based on the emissions produced from on-site sources and do not include off-site mobile source emissions (i.e., trucks and worker vehicles) that are spread over a much larger area. Rather than using the entirety of the site, the CalEEMod emissions model bases the area of disturbance on equipment use. Dozers, graders, and crawler tractors are estimated to disturb an area of 0.5 acre while scrapers are estimated to disturb 1.0 acre over an 8-hour work day.

The CalEEMod model estimates that both site preparation and grading would each cover an area of 0.5 acre per day. The screening tables include sites of 1, 2, and 5 acres with receptors at 25, 50, 100, 200, and 500 meters away. The provided methodology notes that site sizes and receptor distances that lie between those values included in the screening manual may be determined by linear interpolation. In the case of the proposed project, the projected daily disturbance covers an area of 0.5 acre and the threshold values for a 1-acre site were reduced by half. The methodology also denotes that the 25-meter distance is the minimum distance to be used, even if receptors are located closer than this distance.

The project site is bordered on the west by Neuro Restorative, on the south by a private parking lot associated with Neuro Restorative with residential units located just beyond, and by residential units to the immediate east. Residential units are also located across E. 17th Street to the north of the project site. Based on these locations, the 25-meter minimal distance was used in this analysis.

Allowable emissions are based on the source receptor area in which they are produced. In this case, the project is located in the east end of SRA 17 (Central Orange County) and the screening level for a 1-acre site for CO with receptors at 25 meters is 485 pounds per day, or 242.5 pounds per day for a 0.5-acre site. Similarly, the screening level for a 1-acre site for NO_2 with receptors at 25 meters is 81 pounds per day (40.5 pounds per day for 0.5 acre). At a peak value of 5.94 for CO during grading and 12.00 pounds per day for NOx during site preparation, these construction emissions would not create localized impacts.

Because the SCAB is a nonattainment area for PM, the thresholds for both PM_{10} and $PM_{2.5}$ are much more stringent than those for CO and NOx. In this case, the screening level for a 1-acre site for PM_{10} with receptors at 25 meters is 4 pounds per day (2 pounds per day for 0.5 acre). At 1.60 pound per day, PM_{10} would not exceed this value and the resulting impact is less than significant. Similarly, the screening level for a 1-acre site for $PM_{2.5}$ with receptors at 25 meters is 3 pounds per day (1.5 pounds per day for 0.5 acre), and at 0.52 pound per day during grading, $PM_{2.5}$ would also not exceed this value and would, therefore, not constitute a significant localized impact.

4.3.2 Long-Term Localized Impacts, Off-site Criteria Pollutants

- **Less than Significant Impact**. Long-term effects of the proposed project could also be significant if they were to exceed the CAAQS. As noted for construction, these criteria only apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. CO and NO_2 would be significant if the project were to raise existing levels above those values included in the CAAQS. Because the SCAB is a nonattainment area for PM, the operational thresholds for both PM_{10} and $PM_{2.5}$ are set at a measurable increase of 2.5 µg/m^3.

  Unlike construction equipment that generates exhaust and dust in a set area, the primary source of emissions from project operations is due to the addition of vehicles on the roadway system. These emissions are then spread over a vast area and do not result in localized concentrations in proximity to the project site. As such, localized modeling for the project operations is not prepared for residential, limited commercial, or light industrial development that does not include a truck terminal.

  Because CO is the criteria pollutant that is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, long-term adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. In the past, areas of vehicle congestion had the potential to create "pockets" of CO called "hot spots"; however, the SCAB has now been designated as an attainment area for both the State and federal CO standards. No "hot spots" have been reported in the general project area in more than the last five years. CO is no longer a localized pollutant of concern near roadways and, as such, this analysis is no longer necessary.

4.4 Potential to Create Objectionable Odors

- **Less than Significant Impact**. Project construction would involve the use of heavy equipment creating exhaust pollutants from on-site earth movement and from equipment bringing asphalt and other building materials to the site.

  With regards to "nuisance odors," any air quality impacts will be generally confined to the immediate vicinity of the equipment itself. By the time such emissions reach any sensitive receptor sites away from the project site, they will be diluted to well below any level of air quality concern. An occasional "whiff" of diesel exhaust from passing equipment and trucks accessing the site from public roadways may result. Such brief exhaust odors are an adverse but less-than-significant air quality impact.

  Additionally, some odor would be produced from the application of asphalt, paints, and coatings. Any exposure to these common odors would be of short-term duration and, while potentially adverse, constitute a less-than-significant impact.

  Because the proposed project includes a kitchen, exhausts attributable to cooking operations may be evident during all hours of operation. Cooking odors are common and may emanate from both residential and non-residential uses. Because the proposed project is neither a "commercial kitchen" nor a "retail food facility" regulated under the California Retail Food Code (CRFC), as codified in Section 113700 et seq. in Part 7 of the California Health and Safety Code (H&SC), use of the on-site kitchen is assumed to be limited and sporadic. Compliance with applicable building codes will require the use, operation, and maintenance of appropriate exhaust ventilation equipment. These odors are common in the environment and would, therefore, not constitute a significant impact.

4.5 Potential to Generate GHG Emissions

- **Less than Significant Impact**. To provide guidance to local lead agencies on determining the significance for GHG emissions in their CEQA documents, the SCAQMD has convened a GHG CEQA significance threshold working group. The SCAQMD is in the process of establishing a threshold for GHG emissions to determine a project's regional contribution toward global climate change impacts for California.

  On December 5, 2008, SCAQMD recommended actions for determining the CEQA-based significance of GHG. Those recommendations were tiered to determine what projects would be subject to analyses and mitigation.

  - **Tier 1**. Tier 1 consists of determining if the project would quality for an exemption under CEQA.

  - **Tier 2**. Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in Sections 15064(h)(3), 15125(d), or 15152(a) of the State CEQA Guidelines. The GHG reduction plan must, at a minimum, comply with AB 32 GHG reduction goals; include emission estimates agreed upon by either CARB or the SCAQMD, have been analyzed under CEQA, and have a certified final CEQA document. Furthermore, the GHG reduction plan must include a GHG emissions inventory tracking mechanism; process to monitor progress in achieving GHG emission reduction targets, and a commitment to remedy the excess emissions if GHG reduction goals are not met (enforcement).

    If the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If the project is not consistent with a local GHG reduction plan, there is no approved plan, or the GHG reduction plan does not include all of the components described above, the project would move to Tier 3.

  - **Tier 3**. Tier 3 establishes a screening significance threshold level of 10,000 metric tons (MTons) per year for industrial facilities. This is based on a 90 percent emission capture rate. If a project exceeds the GHG screening significance threshold level and GHG emissions cannot be mitigated to less than the screening level, the project would move to Tier 4.

  - **Tier 4**. Tier 4 consists of a "decision tree" that would allow CEQA lead agencies one of three compliance options based on performance standards. Tier 4 was not recommended for approval by the SCAQMD.

  - **Tier 5**. Tier 5 would allow a project proponent to implement off-site mitigation to reduce applicant emissions to less-than-screening levels.

  As noted, the tiered approach was intended for industrial facilities. With respect to residential and commercial development, to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects and implement a "fair share" approach to reducing emission increases from each sector, SCAQMD staff discussed with the working group a proposal combining performance standards and screening thresholds. The performance standards primarily focus on energy efficiency measures beyond Title 24 and a screening level of 3,000 Mtons CO_2e/year based on the relative GHG emissions

contribution between residential and commercial sectors and stationary source (industrial) sectors. With respect to construction, the SCAQMD recommends that the construction emissions be totaled and amortized over a period of 30 years, then added to the emissions generated by the project's operation.

On September 28, 2010, the SCAQMD presented their proposed significance thresholds for GHG. The SCAQMD determined a Tier 3 screening significance threshold level of 10,000 MTons CO_2e/year for industrial projects to be adopted where the SCAQMD is the CEQA lead agency and proposed to extend the industrial GHG significance threshold for use by all CEQA lead agencies.

Similarly, with regard to numerical residential and commercial GHG significance thresholds, SCAQMD staff presented two options that CEQA lead agencies could choose from.

◊ Option #1 presents separate numerical thresholds for residential projects (3,500 MTons CO_2e/year), commercial projects (1,400 MTons CO_2e/year), and mixed-use projects (3,000 MTons CO_2e/year).

◊ Option #2 presents a single numerical threshold for all nonindustrial projects of 3,000 MTons CO_2e/year. If a lead agency chooses one option, it must consistently use that same option for all projects where it is CEQA lead agency. The SCAQMD recommended the use of Option #2 but sought to allow CEQA lead agencies to choose Option #1 if they were to prefer that approach.

For the purposes of this analysis, the resulting impact would be considered significant if the proposed project were to generate GHG emissions in excess of the recommendation by the SCAQMD for Option #2 for mixed-use land uses (i.e., 3,000 MTons CO_2e/year).

Construction

The CalEEMod model default estimates that construction would take 123 working days to complete. For the purposes of this analysis, construction is estimated to begin on February 2, 2021 and follow the CalEEMod default construction schedule with completion on July 22, 2022 allowing for full occupancy in 2022.

Construction activities would consume fuel and result in the generation of GHG. Construction CO_2e emissions are as projected using the CalEEMod computer model and are included in Table AQ-7 (Construction-Related GHG Emissions).

Table AQ-7
CONSTRUCTION-RELATED GHG EMISSIONS
(Mtons/year)

Year	CO_2	CH_4	N_2O	Total CO_2e[1]
2022	66.31	0.02	0.00	66.95
Total per Year[2]	2.21	0.00	0.00	2.25

Notes:
1. Because different gases have different conversion factors, totals may not equal.
2. Averaged over a period of 30 years.

Source: Environmental Impact Sciences / Synectecology

Operations

In the case of site operations, the majority of GHG emissions, specifically CO_2, is due to vehicle travel and energy consumption. Although no off-setting "credit" has been assumed for the removal of the existing single-family residence and cessation of operations at the Chabad Jewish Center of Tustin's existing site, those actions would produce resulting emission reductions.

Table AQ-8 (Yearly Operational GHG Emissions) shows the annual GHG emissions for the proposed project including the amortized construction emissions presented in Table AQ-7 (Construction-Related GHG Emissions) as averaged over 30 years.

Table AQ-8
YEARLY OPERATIONAL GHG EMISSIONS
(Mtons/year)

Source	CO_2	CH_4	N_2O	Total CO_2e[1]
Mobile Sources[2]	75.13	0.01	0.00	76.32
Electricity	16.03	0.00	0.00	16.11
Natural Gas	12.11	0.00	0.00	12.18
Landscape Maintenance	0.00	0.00	0.00	0.00
Water Use	1.95	0.01	0.00	2.32
Waste Disposal	12.65	0.75	0.00	31.33
Amortized Construction	2.21	0.00	0.00	2.22
Total Yearly Emissions	120.08	0.77	0.00	140.49
Threshold	---	---	---	3,000
Exceeds Threshold?				No

Notes:
1. Because different gases have different conversion factors, totals may not equal.
2. Value uses the ITE's "Trip Generation Manual, 9th Edition" default scaled to STS mileage. See Section 1.0 (Methodology).

Source: Environmental Impact Sciences / Synectecology

As noted, projected GHG emissions fall far below identified threshold values and are, therefore, less than significant.

4.6 Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions

- **Less than Significant Impact**. An impact can also be potentially significant if the project does not comply with the applicable plans necessary for the reduction of greenhouse gases.

The SCAQMD notes that it may be likely that projects can achieve the 2035 efficiency threshold because targeted GHG reductions are expected to be met primarily through cleaner vehicles as a result of fleet turnover and reducing VMT. Consequently, fleet turnover plus a small increment of GHG reductions from land use projects could potentially achieve the 2035 efficiency threshold. As such, the policies implemented by the SCAQMD become the applicable plan. Based on their criteria, the impact is less than significant.

5.0 REFERENCES

- California Air Resources Board, California Surface Wind Climatology, Reprinted February 1994.
- California Air Resources Board, AB 32 Climate Change Scoping Plan, December 14, 2017.
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6.0 APPENDICES

- Appendix A: CalEEMod Model Results for the Proposed Project's Winter Emissions
- Appendix B: CalEEMod Model Results for the Proposed Project's Summer Emissions
- Appendix C: CalEEMod Model Results for the Proposed Project's Annual Emissions

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Appendix AQ-A

CalEEMod Model Results
Winter Emissions

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Chabad of Tustin - Orange County, Winter

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

Chabad of Tustin

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	10.93	1000sqft	0.88	10,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage based on actual parcel.

Demolition -

Grading -

Vehicle Trips - Based on Sasaki Transportation analysis.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialImported	0.00	185.00
tblLandUse	LotAcreage	0.25	0.88
tblVehicleTrips	ST_TR	5.99	5.58
tblVehicleTrips	SU_TR	27.63	4.57

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

tblVehicleTrips	WD_TR	6.95	11.25

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					
2022	20.4720	13.8832	7.8772	0.0217	5.6124	0.5313	6.1437	2.6488	0.4893	3.1381	0.0000	2,217.5155	2,217.5155	0.5173	0.1264	2,268.1301
Maximum	**20.4720**	**13.8832**	**7.8772**	**0.0217**	**5.6124**	**0.5313**	**6.1437**	**2.6488**	**0.4893**	**3.1381**	**0.0000**	**2,217.5155**	**2,217.5155**	**0.5173**	**0.1264**	**2,268.1301**

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					
2022	20.4720	13.8832	7.8772	0.0217	1.3678	0.5313	1.8991	0.5991	0.4893	1.0884	0.0000	2,217.5155	2,217.5155	0.5173	0.1264	2,268.1301
Maximum	**20.4720**	**13.8832**	**7.8772**	**0.0217**	**1.3678**	**0.5313**	**1.8991**	**0.5991**	**0.4893**	**1.0884**	**0.0000**	**2,217.5155**	**2,217.5155**	**0.5173**	**0.1264**	**2,268.1301**

Chabad of Tustin - Orange County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	75.63	0.00	69.09	77.38	0.00	65.32	0.00	0.00	0.00	0.00	0.00	0.00

Chabad of Tustin - Orange County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Energy	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Mobile	0.2894	0.3035	2.5289	5.2500e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		534.5676	534.5676	0.0389	0.0255	543.1380
Total	**0.5404**	**0.3645**	**2.5812**	**5.6200e-003**	**0.5528**	**9.1000e-003**	**0.5619**	**0.1474**	**8.8000e-003**	**0.1562**		**607.7067**	**607.7067**	**0.0403**	**0.0268**	**616.7119**

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	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Energy	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Mobile	0.2894	0.3035	2.5289	5.2500e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		534.5676	534.5676	0.0389	0.0255	543.1380
Total	**0.5404**	**0.3645**	**2.5812**	**5.6200e-003**	**0.5528**	**9.1000e-003**	**0.5619**	**0.1474**	**8.8000e-003**	**0.1562**		**607.7067**	**607.7067**	**0.0403**	**0.0268**	**616.7119**

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/2/2022	2/15/2022	5	10	
2	Site Preparation	Site Preparation	2/16/2022	2/16/2022	5	1	
3	Grading	Grading	2/17/2022	2/18/2022	5	2	
4	Building Construction	Building Construction	2/19/2022	7/8/2022	5	100	
5	Paving	Paving	7/9/2022	7/15/2022	5	5	
6	Architectural Coating	Architectural Coating	7/16/2022	7/22/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 16,395; Non-Residential Outdoor: 5,465; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

Chabad of Tustin - Orange County, Winter

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

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	23.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	23.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

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

3.2 Demolition - 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					
Fugitive Dust					0.4922	0.0000	0.4922	0.0745	0.0000	0.0745			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.4922**	**0.3375**	**0.8297**	**0.0745**	**0.3225**	**0.3971**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	9.0900e-003	0.3722	0.1021	1.3700e-003	0.0401	2.7200e-003	0.0428	0.0110	2.6000e-003	0.0136		155.5391	155.5391	0.0148	0.0249	163.3332
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0328	0.0222	0.3058	9.3000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		93.7501	93.7501	2.3700e-003	2.3600e-003	94.5111
Total	**0.0419**	**0.3944**	**0.4079**	**2.3000e-003**	**0.1519**	**3.3200e-003**	**0.1552**	**0.0406**	**3.1500e-003**	**0.0438**		**249.2892**	**249.2892**	**0.0172**	**0.0273**	**257.8443**

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0997	0.0000	0.0997	0.0151	0.0000	0.0151			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.0997**	**0.3375**	**0.4372**	**0.0151**	**0.3225**	**0.3376**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	9.0900e-003	0.3722	0.1021	1.3700e-003	0.0401	2.7200e-003	0.0428	0.0110	2.6000e-003	0.0136		155.5391	155.5391	0.0148	0.0249	163.3332
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0328	0.0222	0.3058	9.3000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		93.7501	93.7501	2.3700e-003	2.3600e-003	94.5111
Total	**0.0419**	**0.3944**	**0.4079**	**2.3000e-003**	**0.1519**	**3.3200e-003**	**0.1552**	**0.0406**	**3.1500e-003**	**0.0438**		**249.2892**	**249.2892**	**0.0172**	**0.0273**	**257.8443**

Chabad of Tustin - Orange County, Winter

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

3.3 Site Preparation - 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					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0164	0.0111	0.1529	4.6000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		46.8751	46.8751	1.1800e-003	1.1800e-003	47.2556
Total	**0.0164**	**0.0111**	**0.1529**	**4.6000e-004**	**0.0559**	**3.0000e-004**	**0.0562**	**0.0148**	**2.8000e-004**	**0.0151**		**46.8751**	**46.8751**	**1.1800e-003**	**1.1800e-003**	**47.2556**

Chabad of Tustin - Orange County, Winter

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

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1074	0.0000	0.1074	0.0116	0.0000	0.0116			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.1074**	**0.2573**	**0.3647**	**0.0116**	**0.2367**	**0.2483**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0164	0.0111	0.1529	4.6000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		46.8751	46.8751	1.1800e-003	1.1800e-003	47.2556
Total	**0.0164**	**0.0111**	**0.1529**	**4.6000e-004**	**0.0559**	**3.0000e-004**	**0.0562**	**0.0148**	**2.8000e-004**	**0.0151**		**46.8751**	**46.8751**	**1.1800e-003**	**1.1800e-003**	**47.2556**

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

3.4 Grading - 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					
Fugitive Dust					5.3224	0.0000	5.3224	2.5701	0.0000	2.5701			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3224**	**0.5173**	**5.8397**	**2.5701**	**0.4759**	**3.0460**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

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	0.0455	1.8608	0.5103	6.8600e-003	0.2006	0.0136	0.2141	0.0549	0.0130	0.0679		777.6956	777.6956	0.0740	0.1246	816.6661
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0178	0.2447	7.4000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		75.0001	75.0001	1.8900e-003	1.8800e-003	75.6089
Total	**0.0717**	**1.8785**	**0.7549**	**7.6000e-003**	**0.2900**	**0.0141**	**0.3040**	**0.0786**	**0.0134**	**0.0921**		**852.6957**	**852.6957**	**0.0759**	**0.1264**	**892.2750**

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

3.4 Grading - 2022

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					1.0778	0.0000	1.0778	0.5205	0.0000	0.5205			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**1.0778**	**0.5173**	**1.5951**	**0.5205**	**0.4759**	**0.9964**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

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	0.0455	1.8608	0.5103	6.8600e-003	0.2006	0.0136	0.2141	0.0549	0.0130	0.0679		777.6956	777.6956	0.0740	0.1246	816.6661
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0178	0.2447	7.4000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		75.0001	75.0001	1.8900e-003	1.8800e-003	75.6089
Total	**0.0717**	**1.8785**	**0.7549**	**7.6000e-003**	**0.2900**	**0.0141**	**0.3040**	**0.0786**	**0.0134**	**0.0921**		**852.6957**	**852.6957**	**0.0759**	**0.1264**	**892.2750**

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2800e-003	0.0933	0.0330	3.8000e-004	0.0128	8.8000e-004	0.0137	3.6800e-003	8.4000e-004	4.5200e-003		41.4845	41.4845	2.3700e-003	5.9500e-003	43.3167
Worker	0.0164	0.0111	0.1529	4.6000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		46.8751	46.8751	1.1800e-003	1.1800e-003	47.2556
Total	**0.0197**	**0.1044**	**0.1859**	**8.4000e-004**	**0.0687**	**1.1800e-003**	**0.0699**	**0.0185**	**1.1200e-003**	**0.0196**		**88.3596**	**88.3596**	**3.5500e-003**	**7.1300e-003**	**90.5723**

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2800e-003	0.0933	0.0330	3.8000e-004	0.0128	8.8000e-004	0.0137	3.6800e-003	8.4000e-004	4.5200e-003		41.4845	41.4845	2.3700e-003	5.9500e-003	43.3167
Worker	0.0164	0.0111	0.1529	4.6000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		46.8751	46.8751	1.1800e-003	1.1800e-003	47.2556
Total	**0.0197**	**0.1044**	**0.1859**	**8.4000e-004**	**0.0687**	**1.1800e-003**	**0.0699**	**0.0185**	**1.1200e-003**	**0.0196**		**88.3596**	**88.3596**	**3.5500e-003**	**7.1300e-003**	**90.5723**

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

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0400	0.5505	1.6700e-003	0.2012	1.0800e-003	0.2023	0.0534	1.0000e-003	0.0544		168.7502	168.7502	4.2600e-003	4.2400e-003	170.1200
Total	**0.0590**	**0.0400**	**0.5505**	**1.6700e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**1.0000e-003**	**0.0544**		**168.7502**	**168.7502**	**4.2600e-003**	**4.2400e-003**	**170.1200**

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

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0400	0.5505	1.6700e-003	0.2012	1.0800e-003	0.2023	0.0534	1.0000e-003	0.0544		168.7502	168.7502	4.2600e-003	4.2400e-003	170.1200
Total	**0.0590**	**0.0400**	**0.5505**	**1.6700e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**1.0000e-003**	**0.0544**		**168.7502**	**168.7502**	**4.2600e-003**	**4.2400e-003**	**170.1200**

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

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	20.2642					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**20.4688**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2800e-003	2.2200e-003	0.0306	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.3750	9.3750	2.4000e-004	2.4000e-004	9.4511
Total	**3.2800e-003**	**2.2200e-003**	**0.0306**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**6.0000e-005**	**3.0200e-003**		**9.3750**	**9.3750**	**2.4000e-004**	**2.4000e-004**	**9.4511**

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

3.7 Architectural Coating - 2022

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	20.2642					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**20.4688**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2800e-003	2.2200e-003	0.0306	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.3750	9.3750	2.4000e-004	2.4000e-004	9.4511
Total	**3.2800e-003**	**2.2200e-003**	**0.0306**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**6.0000e-005**	**3.0200e-003**		**9.3750**	**9.3750**	**2.4000e-004**	**2.4000e-004**	**9.4511**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2894	0.3035	2.5289	5.2500e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		534.5676	534.5676	0.0389	0.0255	543.1380
Unmitigated	0.2894	0.3035	2.5289	5.2500e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		534.5676	534.5676	0.0389	0.0255	543.1380

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	123.00	61.00	50.00	221,200	221,200
Total	123.00	61.00	50.00	221,200	221,200

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.542853	0.058126	0.187899	0.130925	0.024443	0.006426	0.014590	0.004841	0.000666	0.000390	0.024092	0.000735	0.004015

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
NaturalGas Unmitigated	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714

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					
Place of Worship	621.662	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Total		**6.7000e-003**	**0.0610**	**0.0512**	**3.7000e-004**		**4.6300e-003**	**4.6300e-003**		**4.6300e-003**	**4.6300e-003**		**73.1368**	**73.1368**	**1.4000e-003**	**1.3400e-003**	**73.5714**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Place of Worship	0.621662	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Total		**6.7000e-003**	**0.0610**	**0.0512**	**3.7000e-004**		**4.6300e-003**	**4.6300e-003**		**4.6300e-003**	**4.6300e-003**		**73.1368**	**73.1368**	**1.4000e-003**	**1.3400e-003**	**73.5714**

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	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Unmitigated	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0278					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2164					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Total	**0.2443**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3900e-003**	**2.3900e-003**	**1.0000e-005**		**2.5500e-003**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0278					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2164					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Total	**0.2443**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3900e-003**	**2.3900e-003**	**1.0000e-005**		**2.5500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix AQ-B

CalEEMod Model Results
Summer Emissions

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Chabad of Tustin - Orange County, Summer

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

Chabad of Tustin

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	10.93	1000sqft	0.88	10,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage based on actual parcel.

Demolition -

Grading -

Vehicle Trips - Based on Sasaki Transportation analysis.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialImported	0.00	185.00
tblLandUse	LotAcreage	0.25	0.88
tblVehicleTrips	ST_TR	5.99	5.58
tblVehicleTrips	SU_TR	27.63	4.57

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

tblVehicleTrips	WD_TR	6.95	11.25

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					
2022	20.4718	13.8112	7.8986	0.0217	5.6124	0.5313	6.1437	2.6488	0.4893	3.1381	0.0000	2,221.1076	2,221.1076	0.5174	0.1263	2,271.6791
Maximum	**20.4718**	**13.8112**	**7.8986**	**0.0217**	**5.6124**	**0.5313**	**6.1437**	**2.6488**	**0.4893**	**3.1381**	**0.0000**	**2,221.1076**	**2,221.1076**	**0.5174**	**0.1263**	**2,271.6791**

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					
2022	20.4718	13.8112	7.8986	0.0217	1.3678	0.5313	1.8991	0.5991	0.4893	1.0884	0.0000	2,221.1076	2,221.1076	0.5174	0.1263	2,271.6791
Maximum	**20.4718**	**13.8112**	**7.8986**	**0.0217**	**1.3678**	**0.5313**	**1.8991**	**0.5991**	**0.4893**	**1.0884**	**0.0000**	**2,221.1076**	**2,221.1076**	**0.5174**	**0.1263**	**2,271.6791**

Chabad of Tustin - Orange County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	75.63	0.00	69.09	77.38	0.00	65.32	0.00	0.00	0.00	0.00	0.00	0.00

Chabad of Tustin - Orange County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Energy	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Mobile	0.2919	0.2831	2.5269	5.4600e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		555.5850	555.5850	0.0372	0.0244	563.7895
Total	**0.5429**	**0.3441**	**2.5792**	**5.8300e-003**	**0.5528**	**9.1000e-003**	**0.5619**	**0.1474**	**8.8000e-003**	**0.1562**		**628.7242**	**628.7242**	**0.0386**	**0.0258**	**637.3634**

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	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Energy	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Mobile	0.2919	0.2831	2.5269	5.4600e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		555.5850	555.5850	0.0372	0.0244	563.7895
Total	**0.5429**	**0.3441**	**2.5792**	**5.8300e-003**	**0.5528**	**9.1000e-003**	**0.5619**	**0.1474**	**8.8000e-003**	**0.1562**		**628.7242**	**628.7242**	**0.0386**	**0.0258**	**637.3634**

Chabad of Tustin - Orange County, Summer

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/2/2022	2/15/2022	5	10	
2	Site Preparation	Site Preparation	2/16/2022	2/16/2022	5	1	
3	Grading	Grading	2/17/2022	2/18/2022	5	2	
4	Building Construction	Building Construction	2/19/2022	7/8/2022	5	100	
5	Paving	Paving	7/9/2022	7/15/2022	5	5	
6	Architectural Coating	Architectural Coating	7/16/2022	7/22/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 16,395; Non-Residential Outdoor: 5,465; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

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

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	23.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	23.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Chabad of Tustin - Orange County, Summer

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

3.2 Demolition - 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					
Fugitive Dust					0.4922	0.0000	0.4922	0.0745	0.0000	0.0745			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.4922**	**0.3375**	**0.8297**	**0.0745**	**0.3225**	**0.3971**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	9.3200e-003	0.3581	0.1006	1.3700e-003	0.0401	2.7100e-003	0.0428	0.0110	2.5900e-003	0.0136		155.5022	155.5022	0.0148	0.0249	163.2947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0202	0.3286	9.7000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		98.4712	98.4712	2.3200e-003	2.2100e-003	99.1885
Total	**0.0394**	**0.3783**	**0.4292**	**2.3400e-003**	**0.1519**	**3.3100e-003**	**0.1552**	**0.0406**	**3.1400e-003**	**0.0438**		**253.9733**	**253.9733**	**0.0171**	**0.0271**	**262.4832**

Chabad of Tustin - Orange County, Summer

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0997	0.0000	0.0997	0.0151	0.0000	0.0151			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.0997**	**0.3375**	**0.4372**	**0.0151**	**0.3225**	**0.3376**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	9.3200e-003	0.3581	0.1006	1.3700e-003	0.0401	2.7100e-003	0.0428	0.0110	2.5900e-003	0.0136		155.5022	155.5022	0.0148	0.0249	163.2947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0202	0.3286	9.7000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		98.4712	98.4712	2.3200e-003	2.2100e-003	99.1885
Total	**0.0394**	**0.3783**	**0.4292**	**2.3400e-003**	**0.1519**	**3.3100e-003**	**0.1552**	**0.0406**	**3.1400e-003**	**0.0438**		**253.9733**	**253.9733**	**0.0171**	**0.0271**	**262.4832**

Chabad of Tustin - Orange County, Summer

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

3.3 Site Preparation - 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					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	0.0101	0.1643	4.9000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		49.2356	49.2356	1.1600e-003	1.1100e-003	49.5943
Total	**0.0150**	**0.0101**	**0.1643**	**4.9000e-004**	**0.0559**	**3.0000e-004**	**0.0562**	**0.0148**	**2.8000e-004**	**0.0151**		**49.2356**	**49.2356**	**1.1600e-003**	**1.1100e-003**	**49.5943**

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

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1074	0.0000	0.1074	0.0116	0.0000	0.0116			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.1074**	**0.2573**	**0.3647**	**0.0116**	**0.2367**	**0.2483**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	0.0101	0.1643	4.9000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		49.2356	49.2356	1.1600e-003	1.1100e-003	49.5943
Total	**0.0150**	**0.0101**	**0.1643**	**4.9000e-004**	**0.0559**	**3.0000e-004**	**0.0562**	**0.0148**	**2.8000e-004**	**0.0151**		**49.2356**	**49.2356**	**1.1600e-003**	**1.1100e-003**	**49.5943**

Chabad of Tustin - Orange County, Summer

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

3.4 Grading - 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					
Fugitive Dust					5.3224	0.0000	5.3224	2.5701	0.0000	2.5701			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3224**	**0.5173**	**5.8397**	**2.5701**	**0.4759**	**3.0460**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

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	0.0466	1.7905	0.5029	6.8600e-003	0.2006	0.0136	0.2141	0.0549	0.0130	0.0679		777.5109	777.5109	0.0741	0.1245	816.4733
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0162	0.2629	7.8000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		78.7769	78.7769	1.8500e-003	1.7700e-003	79.3508
Total	**0.0706**	**1.8066**	**0.7658**	**7.6400e-003**	**0.2900**	**0.0140**	**0.3040**	**0.0786**	**0.0134**	**0.0921**		**856.2878**	**856.2878**	**0.0760**	**0.1263**	**895.8241**

Chabad of Tustin - Orange County, Summer

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

3.4 Grading - 2022

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					1.0778	0.0000	1.0778	0.5205	0.0000	0.5205			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**1.0778**	**0.5173**	**1.5951**	**0.5205**	**0.4759**	**0.9964**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

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	0.0466	1.7905	0.5029	6.8600e-003	0.2006	0.0136	0.2141	0.0549	0.0130	0.0679		777.5109	777.5109	0.0741	0.1245	816.4733
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0162	0.2629	7.8000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		78.7769	78.7769	1.8500e-003	1.7700e-003	79.3508
Total	**0.0706**	**1.8066**	**0.7658**	**7.6400e-003**	**0.2900**	**0.0140**	**0.3040**	**0.0786**	**0.0134**	**0.0921**		**856.2878**	**856.2878**	**0.0760**	**0.1263**	**895.8241**

Chabad of Tustin - Orange County, Summer

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3300e-003	0.0897	0.0319	3.8000e-004	0.0128	8.7000e-004	0.0137	3.6800e-003	8.4000e-004	4.5200e-003		41.4715	41.4715	2.3800e-003	5.9400e-003	43.3020
Worker	0.0150	0.0101	0.1643	4.9000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		49.2356	49.2356	1.1600e-003	1.1100e-003	49.5943
Total	**0.0184**	**0.0998**	**0.1962**	**8.7000e-004**	**0.0687**	**1.1700e-003**	**0.0699**	**0.0185**	**1.1200e-003**	**0.0196**		**90.7071**	**90.7071**	**3.5400e-003**	**7.0500e-003**	**92.8963**

Chabad of Tustin - Orange County, Summer

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3300e-003	0.0897	0.0319	3.8000e-004	0.0128	8.7000e-004	0.0137	3.6800e-003	8.4000e-004	4.5200e-003		41.4715	41.4715	2.3800e-003	5.9400e-003	43.3020
Worker	0.0150	0.0101	0.1643	4.9000e-004	0.0559	3.0000e-004	0.0562	0.0148	2.8000e-004	0.0151		49.2356	49.2356	1.1600e-003	1.1100e-003	49.5943
Total	**0.0184**	**0.0998**	**0.1962**	**8.7000e-004**	**0.0687**	**1.1700e-003**	**0.0699**	**0.0185**	**1.1200e-003**	**0.0196**		**90.7071**	**90.7071**	**3.5400e-003**	**7.0500e-003**	**92.8963**

Chabad of Tustin - Orange County, Summer

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

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0364	0.5915	1.7500e-003	0.2012	1.0800e-003	0.2023	0.0534	1.0000e-003	0.0544		177.2481	177.2481	4.1700e-003	3.9800e-003	178.5393
Total	**0.0541**	**0.0364**	**0.5915**	**1.7500e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**1.0000e-003**	**0.0544**		**177.2481**	**177.2481**	**4.1700e-003**	**3.9800e-003**	**178.5393**

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

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0364	0.5915	1.7500e-003	0.2012	1.0800e-003	0.2023	0.0534	1.0000e-003	0.0544		177.2481	177.2481	4.1700e-003	3.9800e-003	178.5393
Total	**0.0541**	**0.0364**	**0.5915**	**1.7500e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**1.0000e-003**	**0.0544**		**177.2481**	**177.2481**	**4.1700e-003**	**3.9800e-003**	**178.5393**

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

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	20.2642					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**20.4688**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0100e-003	2.0200e-003	0.0329	1.0000e-004	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.8471	9.8471	2.3000e-004	2.2000e-004	9.9189
Total	**3.0100e-003**	**2.0200e-003**	**0.0329**	**1.0000e-004**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**6.0000e-005**	**3.0200e-003**		**9.8471**	**9.8471**	**2.3000e-004**	**2.2000e-004**	**9.9189**

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

3.7 Architectural Coating - 2022

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	20.2642					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**20.4688**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0100e-003	2.0200e-003	0.0329	1.0000e-004	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.8471	9.8471	2.3000e-004	2.2000e-004	9.9189
Total	**3.0100e-003**	**2.0200e-003**	**0.0329**	**1.0000e-004**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**6.0000e-005**	**3.0200e-003**		**9.8471**	**9.8471**	**2.3000e-004**	**2.2000e-004**	**9.9189**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2919	0.2831	2.5269	5.4600e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		555.5850	555.5850	0.0372	0.0244	563.7895
Unmitigated	0.2919	0.2831	2.5269	5.4600e-003	0.5528	4.4700e-003	0.5573	0.1474	4.1700e-003	0.1515		555.5850	555.5850	0.0372	0.0244	563.7895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	123.00	61.00	50.00	221,200	221,200
Total	123.00	61.00	50.00	221,200	221,200

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.542853	0.058126	0.187899	0.130925	0.024443	0.006426	0.014590	0.004841	0.000666	0.000390	0.024092	0.000735	0.004015

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
NaturalGas Unmitigated	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714

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					
Place of Worship	621.662	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Total		**6.7000e-003**	**0.0610**	**0.0512**	**3.7000e-004**		**4.6300e-003**	**4.6300e-003**		**4.6300e-003**	**4.6300e-003**		**73.1368**	**73.1368**	**1.4000e-003**	**1.3400e-003**	**73.5714**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Place of Worship	0.621662	6.7000e-003	0.0610	0.0512	3.7000e-004		4.6300e-003	4.6300e-003		4.6300e-003	4.6300e-003		73.1368	73.1368	1.4000e-003	1.3400e-003	73.5714
Total		**6.7000e-003**	**0.0610**	**0.0512**	**3.7000e-004**		**4.6300e-003**	**4.6300e-003**		**4.6300e-003**	**4.6300e-003**		**73.1368**	**73.1368**	**1.4000e-003**	**1.3400e-003**	**73.5714**

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	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Unmitigated	0.2443	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003

Chabad of Tustin - Orange County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0278					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2164					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Total	**0.2443**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3900e-003**	**2.3900e-003**	**1.0000e-005**		**2.5500e-003**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0278					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2164					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.3900e-003	2.3900e-003	1.0000e-005		2.5500e-003
Total	**0.2443**	**1.0000e-005**	**1.1200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.3900e-003**	**2.3900e-003**	**1.0000e-005**		**2.5500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix AQ-C

CalEEMod Model Results
Annual Emissions

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Chabad of Tustin - Orange County, Annual

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

Chabad of Tustin

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	10.93	1000sqft	0.88	10,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage based on actual parcel.

Demolition -

Grading -

Vehicle Trips - Based on Sasaki Transportation analysis.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialImported	0.00	185.00
tblLandUse	LotAcreage	0.25	0.88
tblVehicleTrips	ST_TR	5.99	5.58
tblVehicleTrips	SU_TR	27.63	4.57

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

tblVehicleTrips	WD_TR	6.95	11.25

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					
2022	0.0934	0.4264	0.4389	7.5000e-004	0.0130	0.0220	0.0350	4.3100e-003	0.0203	0.0246	0.0000	66.3121	66.3121	0.0187	5.7000e-004	66.9515
Maximum	**0.0934**	**0.4264**	**0.4389**	**7.5000e-004**	**0.0130**	**0.0220**	**0.0350**	**4.3100e-003**	**0.0203**	**0.0246**	**0.0000**	**66.3121**	**66.3121**	**0.0187**	**5.7000e-004**	**66.9515**

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					
2022	0.0934	0.4264	0.4389	7.5000e-004	6.5800e-003	0.0220	0.0286	1.9400e-003	0.0203	0.0222	0.0000	66.3121	66.3121	0.0187	5.7000e-004	66.9514
Maximum	**0.0934**	**0.4264**	**0.4389**	**7.5000e-004**	**6.5800e-003**	**0.0220**	**0.0286**	**1.9400e-003**	**0.0203**	**0.0222**	**0.0000**	**66.3121**	**66.3121**	**0.0187**	**5.7000e-004**	**66.9514**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**49.38**	**0.00**	**18.36**	**54.99**	**0.00**	**9.63**	**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	**2-2-2022**	**5-1-2022**	0.2527	0.2527
2	**5-2-2022**	**8-1-2022**	0.2615	0.2615
		Highest	0.2615	0.2615

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	0.0446	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	1.2200e-003	0.0111	9.3400e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	28.1391	28.1391	1.5900e-003	3.9000e-004	28.2937
Mobile	0.0432	0.0472	0.3897	8.1000e-004	0.0833	6.9000e-004	0.0840	0.0223	6.4000e-004	0.0229	0.0000	75.1253	75.1253	5.3700e-003	3.5600e-003	76.3208
Waste						0.0000	0.0000		0.0000	0.0000	12.6463	0.0000	12.6463	0.7474	0.0000	31.3308
Water						0.0000	0.0000		0.0000	0.0000	0.1085	1.8437	1.9522	0.0113	2.8000e-004	2.3187
Total	**0.0890**	**0.0583**	**0.3992**	**8.8000e-004**	**0.0833**	**1.5400e-003**	**0.0849**	**0.0223**	**1.4900e-003**	**0.0237**	**12.7548**	**105.1082**	**117.8631**	**0.7656**	**4.2300e-003**	**138.2643**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0446	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	1.2200e-003	0.0111	9.3400e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	28.1391	28.1391	1.5900e-003	3.9000e-004	28.2937
Mobile	0.0432	0.0472	0.3897	8.1000e-004	0.0833	6.9000e-004	0.0840	0.0223	6.4000e-004	0.0229	0.0000	75.1253	75.1253	5.3700e-003	3.5600e-003	76.3208
Waste						0.0000	0.0000		0.0000	0.0000	12.6463	0.0000	12.6463	0.7474	0.0000	31.3308
Water						0.0000	0.0000		0.0000	0.0000	0.1085	1.8437	1.9522	0.0113	2.8000e-004	2.3187
Total	**0.0890**	**0.0583**	**0.3992**	**8.8000e-004**	**0.0833**	**1.5400e-003**	**0.0849**	**0.0223**	**1.4900e-003**	**0.0237**	**12.7548**	**105.1082**	**117.8631**	**0.7656**	**4.2300e-003**	**138.2643**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/2/2022	2/15/2022	5	10	
2	Site Preparation	Site Preparation	2/16/2022	2/16/2022	5	1	
3	Grading	Grading	2/17/2022	2/18/2022	5	2	

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

4	Building Construction	Building Construction	2/19/2022	7/8/2022	5	100	
5	Paving	Paving	7/9/2022	7/15/2022	5	5	
6	Architectural Coating	Architectural Coating	7/16/2022	7/22/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 16,395; Non-Residential Outdoor: 5,465; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	23.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	23.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Demolition - 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					
Fugitive Dust					2.4600e-003	0.0000	2.4600e-003	3.7000e-004	0.0000	3.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**2.4600e-003**	**1.6900e-003**	**4.1500e-003**	**3.7000e-004**	**1.6100e-003**	**1.9800e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8800e-003	5.1000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7054	0.7054	7.0000e-005	1.1000e-004	0.7408
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4310	0.4310	1.0000e-005	1.0000e-005	0.4345
Total	**2.0000e-004**	**1.9900e-003**	**2.0700e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**2.0000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**1.1364**	**1.1364**	**8.0000e-005**	**1.2000e-004**	**1.1753**

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					5.0000e-004	0.0000	5.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**5.0000e-004**	**1.6900e-003**	**2.1900e-003**	**8.0000e-005**	**1.6100e-003**	**1.6900e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8800e-003	5.1000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7054	0.7054	7.0000e-005	1.1000e-004	0.7408
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4310	0.4310	1.0000e-005	1.0000e-005	0.4345
Total	**2.0000e-004**	**1.9900e-003**	**2.0700e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**2.0000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**1.1364**	**1.1364**	**8.0000e-005**	**1.2000e-004**	**1.1753**

3.3 Site Preparation - 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					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

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

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0216	0.0216	0.0000	0.0000	0.0217
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0216**	**0.0216**	**0.0000**	**0.0000**	**0.0217**

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					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**5.0000e-005**	**1.3000e-004**	**1.8000e-004**	**1.0000e-005**	**1.2000e-004**	**1.3000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0216	0.0216	0.0000	0.0000	0.0217
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0216**	**0.0216**	**0.0000**	**0.0000**	**0.0217**

3.4 Grading - 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					
Fugitive Dust					5.3200e-003	0.0000	5.3200e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3200e-003**	**5.2000e-004**	**5.8400e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

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

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8800e-003	5.1000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7054	0.7054	7.0000e-005	1.1000e-004	0.7408
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	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0690	0.0690	0.0000	0.0000	0.0695
Total	**7.0000e-005**	**1.9000e-003**	**7.6000e-004**	**1.0000e-005**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**7.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.7744**	**0.7744**	**7.0000e-005**	**1.1000e-004**	**0.8103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0800e-003	0.0000	1.0800e-003	5.2000e-004	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**1.0800e-003**	**5.2000e-004**	**1.6000e-003**	**5.2000e-004**	**4.8000e-004**	**1.0000e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

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

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8800e-003	5.1000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7054	0.7054	7.0000e-005	1.1000e-004	0.7408
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	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0690	0.0690	0.0000	0.0000	0.0695
Total	**7.0000e-005**	**1.9000e-003**	**7.6000e-004**	**1.0000e-005**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**7.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.7744**	**0.7744**	**7.0000e-005**	**1.1000e-004**	**0.8103**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	4.7000e-003	1.6200e-003	2.0000e-005	6.3000e-004	4.0000e-005	6.7000e-004	1.8000e-004	4.0000e-005	2.2000e-004	0.0000	1.8814	1.8814	1.1000e-004	2.7000e-004	1.9645
Worker	7.5000e-004	5.7000e-004	7.8200e-003	2.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1551	2.1551	5.0000e-005	5.0000e-005	2.1726
Total	**9.1000e-004**	**5.2700e-003**	**9.4400e-003**	**4.0000e-005**	**3.3700e-003**	**6.0000e-005**	**3.4300e-003**	**9.1000e-004**	**5.0000e-005**	**9.6000e-004**	**0.0000**	**4.0365**	**4.0365**	**1.6000e-004**	**3.2000e-004**	**4.1371**

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	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

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

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	4.7000e-003	1.6200e-003	2.0000e-005	6.3000e-004	4.0000e-005	6.7000e-004	1.8000e-004	4.0000e-005	2.2000e-004	0.0000	1.8814	1.8814	1.1000e-004	2.7000e-004	1.9645
Worker	7.5000e-004	5.7000e-004	7.8200e-003	2.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1551	2.1551	5.0000e-005	5.0000e-005	2.1726
Total	**9.1000e-004**	**5.2700e-003**	**9.4400e-003**	**4.0000e-005**	**3.3700e-003**	**6.0000e-005**	**3.4300e-003**	**9.1000e-004**	**5.0000e-005**	**9.6000e-004**	**0.0000**	**4.0365**	**4.0365**	**1.6000e-004**	**3.2000e-004**	**4.1371**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

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

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.4100e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3879	0.3879	1.0000e-005	1.0000e-005	0.3911
Total	**1.4000e-004**	**1.0000e-004**	**1.4100e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3879**	**0.3879**	**1.0000e-005**	**1.0000e-005**	**0.3911**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

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

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.4100e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3879	0.3879	1.0000e-005	1.0000e-005	0.3911
Total	**1.4000e-004**	**1.0000e-004**	**1.4100e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3879**	**0.3879**	**1.0000e-005**	**1.0000e-005**	**0.3911**

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	0.0507					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0512**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0216	0.0216	0.0000	0.0000	0.0217
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0216**	**0.0216**	**0.0000**	**0.0000**	**0.0217**

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	0.0507					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0512**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0216	0.0216	0.0000	0.0000	0.0217
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0216**	**0.0216**	**0.0000**	**0.0000**	**0.0217**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0432	0.0472	0.3897	8.1000e-004	0.0833	6.9000e-004	0.0840	0.0223	6.4000e-004	0.0229	0.0000	75.1253	75.1253	5.3700e-003	3.5600e-003	76.3208
Unmitigated	0.0432	0.0472	0.3897	8.1000e-004	0.0833	6.9000e-004	0.0840	0.0223	6.4000e-004	0.0229	0.0000	75.1253	75.1253	5.3700e-003	3.5600e-003	76.3208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	123.00	61.00	50.00	221,200	221,200
Total	123.00	61.00	50.00	221,200	221,200

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.542853	0.058126	0.187899	0.130925	0.024443	0.006426	0.014590	0.004841	0.000666	0.000390	0.024092	0.000735	0.004015

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	16.0305	16.0305	1.3500e-003	1.6000e-004	16.1132
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	16.0305	16.0305	1.3500e-003	1.6000e-004	16.1132
NaturalGas Mitigated	1.2200e-003	0.0111	9.3400e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1086	12.1086	2.3000e-004	2.2000e-004	12.1806
NaturalGas Unmitigated	1.2200e-003	0.0111	9.3400e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1086	12.1086	2.3000e-004	2.2000e-004	12.1806

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Place of Worship	226907	1.2200e-003	0.0111	9.3400e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1086	12.1086	2.3000e-004	2.2000e-004	12.1806
Total		**1.2200e-003**	**0.0111**	**9.3400e-003**	**7.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**12.1086**	**12.1086**	**2.3000e-004**	**2.2000e-004**	**12.1806**

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					
Place of Worship	226907	1.2200e-003	0.0111	9.3400e-003	7.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	12.1086	12.1086	2.3000e-004	2.2000e-004	12.1806
Total		**1.2200e-003**	**0.0111**	**9.3400e-003**	**7.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**12.1086**	**12.1086**	**2.3000e-004**	**2.2000e-004**	**12.1806**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Place of Worship	90391.1	16.0305	1.3500e-003	1.6000e-004	16.1132
Total		**16.0305**	**1.3500e-003**	**1.6000e-004**	**16.1132**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Place of Worship	90391.1	16.0305	1.3500e-003	1.6000e-004	16.1132
Total		**16.0305**	**1.3500e-003**	**1.6000e-004**	**16.1132**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0446	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Unmitigated	0.0446	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	**0.0446**	**0.0000**	**1.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**0.0000**	**2.9000e-004**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	**0.0446**	**0.0000**	**1.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**0.0000**	**2.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.9522	0.0113	2.8000e-004	2.3187
Unmitigated	1.9522	0.0113	2.8000e-004	2.3187

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Place of Worship	0.341988 / 0.534904	1.9522	0.0113	2.8000e-004	2.3187
Total		**1.9522**	**0.0113**	**2.8000e-004**	**2.3187**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Place of Worship	0.341988 / 0.534904	1.9522	0.0113	2.8000e-004	2.3187
Total		**1.9522**	**0.0113**	**2.8000e-004**	**2.3187**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.6463	0.7474	0.0000	31.3308
Unmitigated	12.6463	0.7474	0.0000	31.3308

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Place of Worship	62.3	12.6463	0.7474	0.0000	31.3308
Total		**12.6463**	**0.7474**	**0.0000**	**31.3308**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Place of Worship	62.3	12.6463	0.7474	0.0000	31.3308
Total		**12.6463**	**0.7474**	**0.0000**	**31.3308**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation