

1550 West Stowell Road Project

Air Quality and Greenhouse Gas Emissions Study

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May 2022

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1 Project Description

1.1 Introduction

This study analyzes the potential air quality and greenhouse gas (GHG) emissions impacts of the proposed 1550 West Stowell Road Box Facility project (herein referred to as "proposed project" or "project") in Santa Maria, California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to Arris Studio Architects in support of environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the project's air quality and greenhouse gas (GHG) emissions impacts related to both temporary construction activity and long-term operation of the project.

1.2 Project Summary

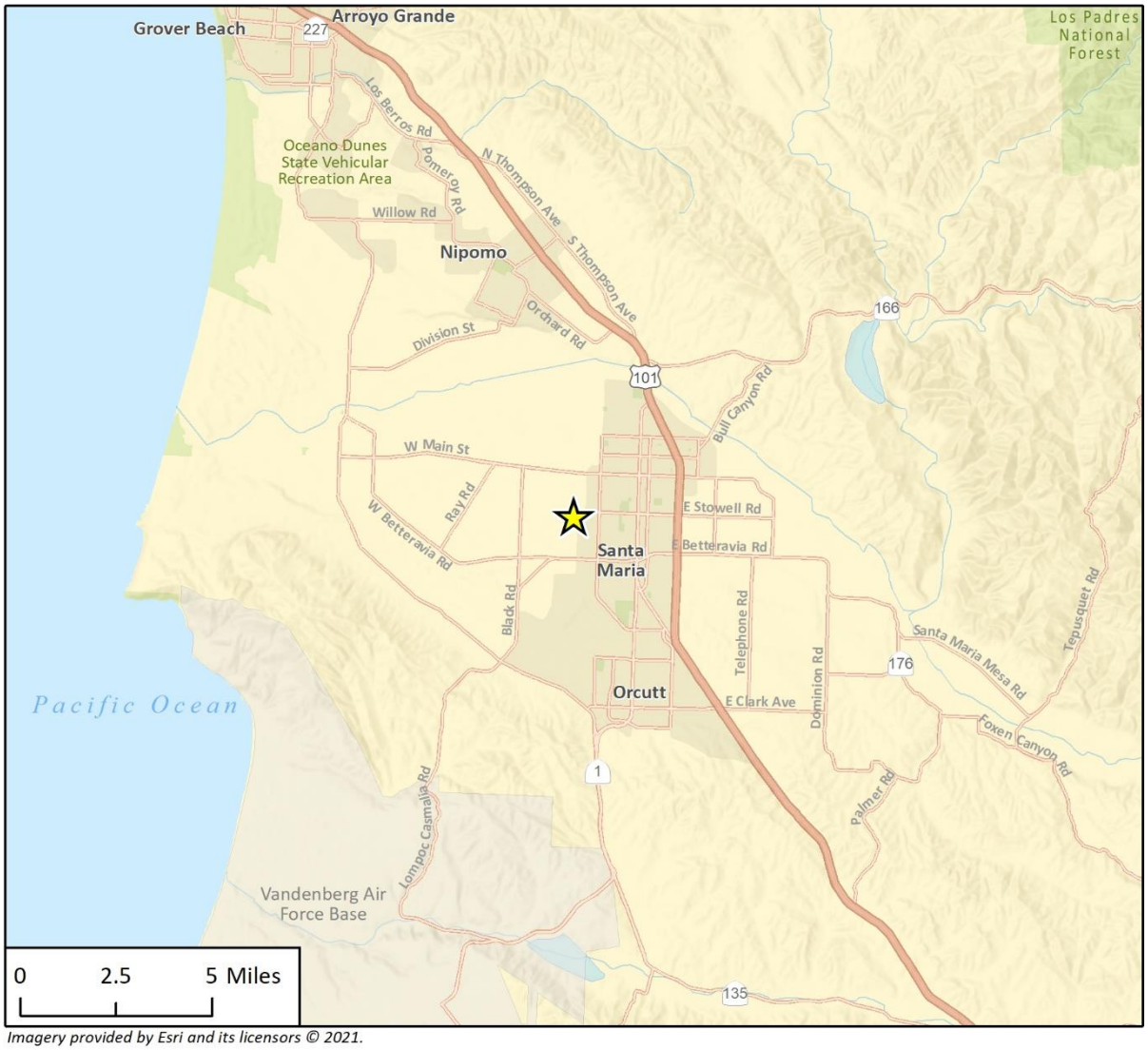
Project Location

The project site encompasses an approximately 20-acre parcel at 1550 West Stowell Road (Assessor's Parcel Number 117-820-015). The site is currently vacant and is zoned PD/CM AG (Commercial Manufacturing with a Planned Development Overlay and an Agriculture Overlay). Adjacent land uses include agricultural uses immediately to the west and to the north across West Stowell Road. To the east of the project site is a commercial development that supplies agricultural equipment. The Santa Maria Valley Railroad tracks bound the project site to the south. Figure 1 shows the project site's regional location, and Figure 2 shows an aerial view of the project site and surrounding area. Project site plans are included in Appendix A and shown in

Project Description

The project would involve the construction of a box shed warehouse with attached office space. Empty boxes would be delivered and stored for future material production. The Box Shed warehouse space would be approximately 60,000 square feet. The Box Shed warehouse would also include approximately 2,019 square feet of office space. A total of 128 parking spaces would be provided onsite and 83,438 square feet of the site (18 percent of the overall site) would be landscaped. The landscaped area water usage would be approximately 1,036,088 gallons per year. Buildout of the project would occur in a single phase. Once operational, there would be 30 employees.

Figure 1 Regional Location



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Project Location

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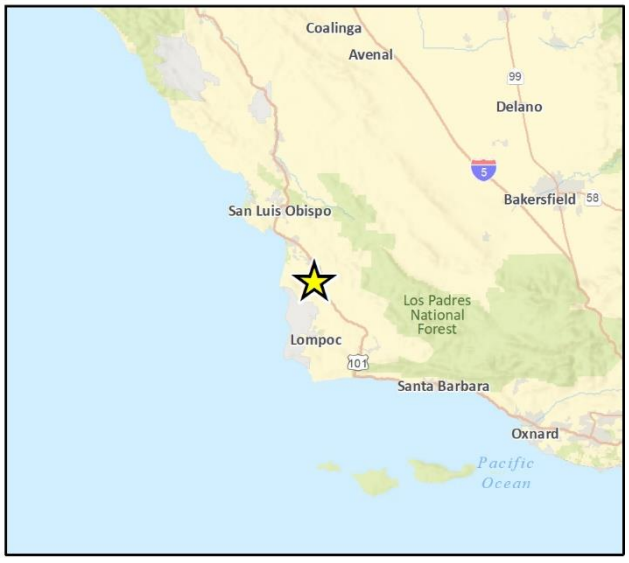
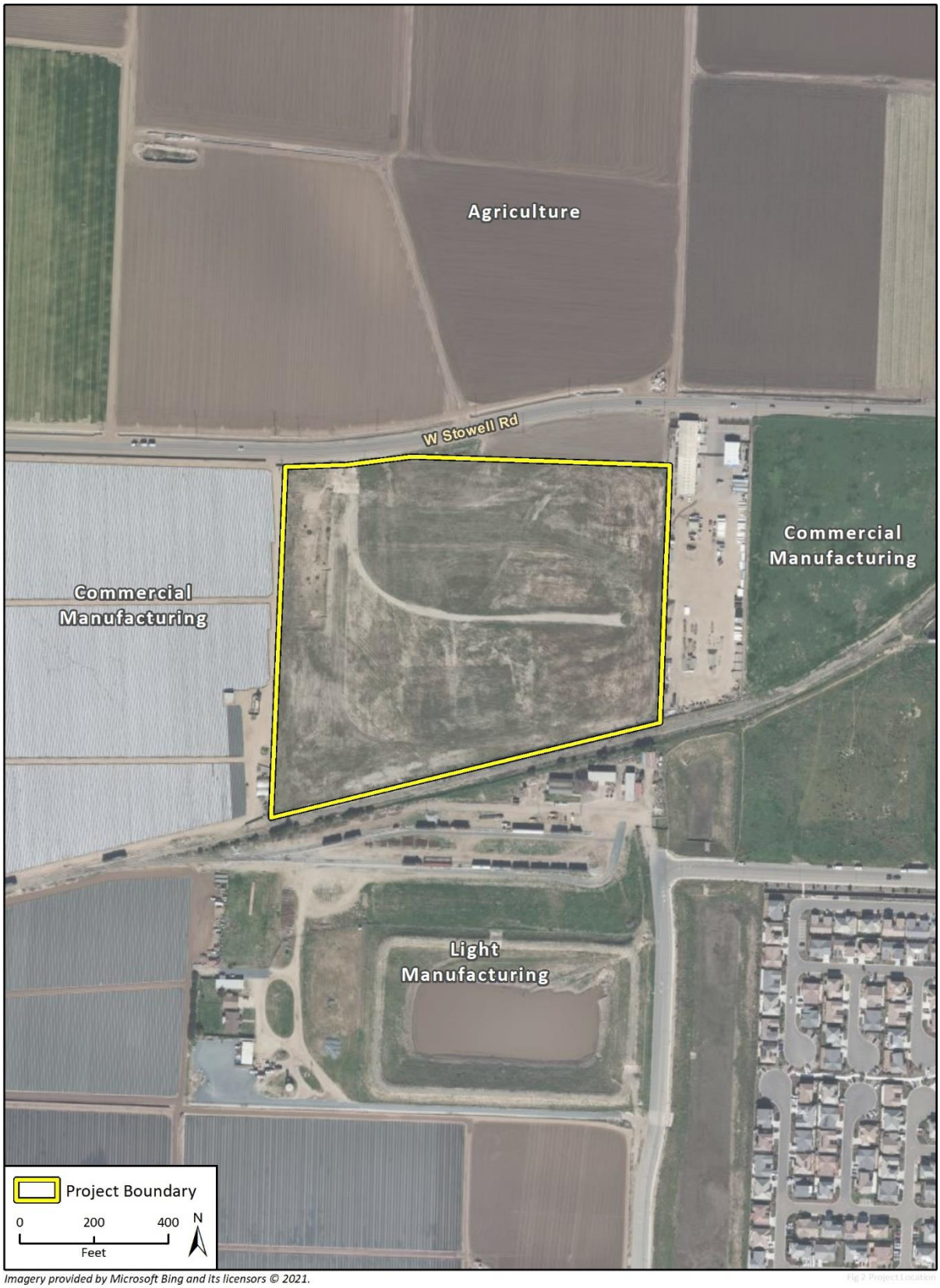
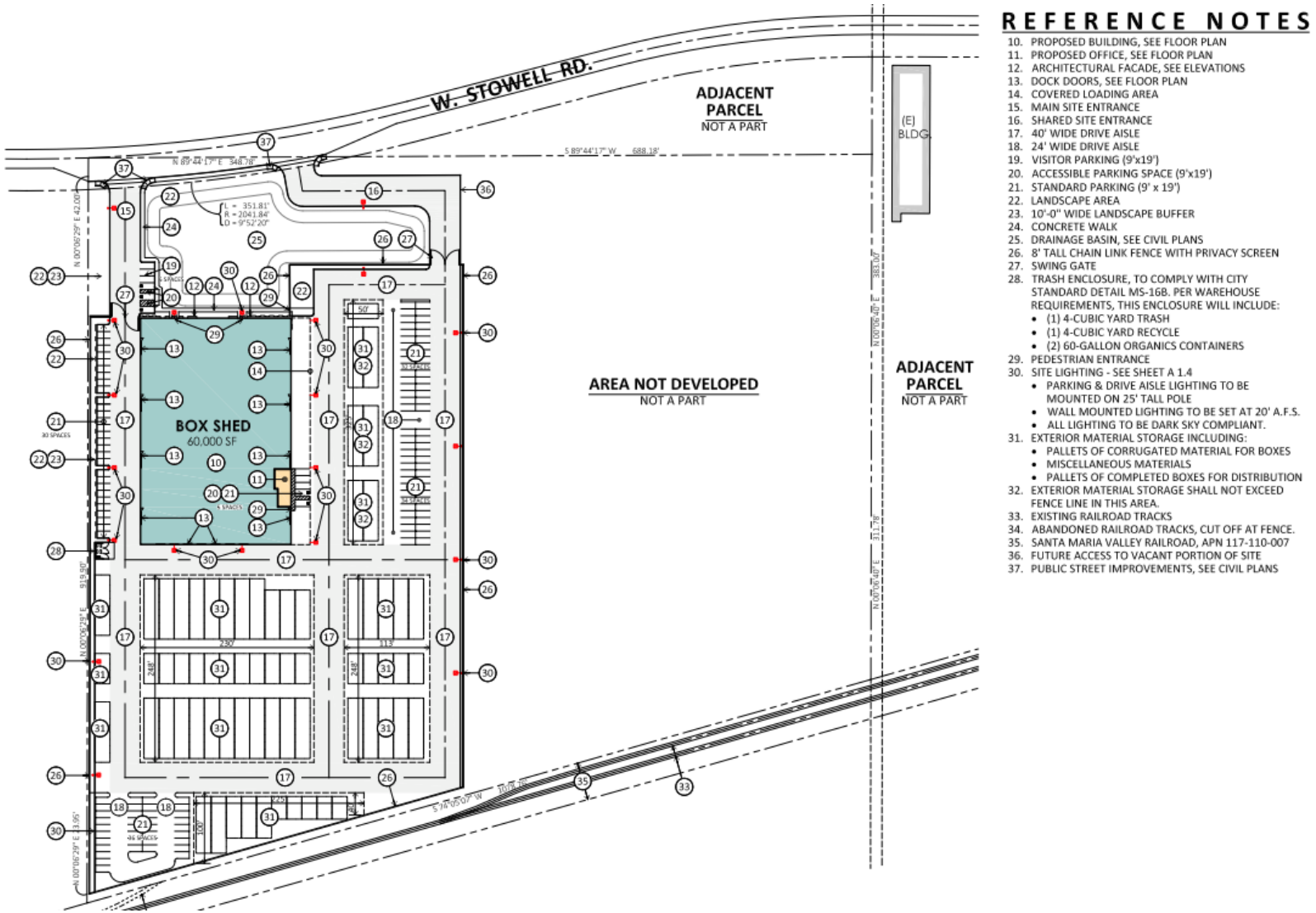


Figure 2 Project Site Location and Zoning Designations of Adjacent Land Uses



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Figure 3 Project Site Plan



Source: Arris Studio Architects 2022

Table 1 lists the land use types and sizes for full buildout of the project, which includes all potential expansions and additions. The project would employ a total of 30 people.

Table 1 Project Land Uses

Land Use Type	Land Use Size
Box Shed Warehouse (Unrefrigerated)	60,000 square feet
Box Shed Warehouse Office	2,019 square feet
Parking Lot	128 parking spaces
Paved Surfaces	329,363 square feet
See Appendix A for Project Site Plans	

Construction

Construction activities are anticipated to occur over the course of four months from June 2022 through October 2022. Construction would involve site preparation, grading, building construction, concrete pouring, and architectural coating. The single phase would involve construction of the Box Shed warehouse, parking lots to support the building, and landscaped areas. The project would not require demolition because the site is vacant. Based on project information provided by the applicant, approximately 8,300 cubic yards of soil would be imported from off-site sources.

2 Air Quality

2.1 Environmental and Regulatory Setting

2.1.1 Local Climate and Meteorology

California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. The project site is located in the South Central Coast Air Basin (SCCAB), which covers San Luis Obispo, Santa Barbara, and Ventura counties. The Santa Barbara County Air Pollution Control District (SBCAPCD) monitors and regulates local air quality in Santa Barbara County. The climate of the SCCAB is strongly influenced by its proximity to the Pacific Ocean and the location of the high-pressure cell in the northeastern Pacific. With a Mediterranean type climate, Santa Maria is characterized by warm, dry summers and cool winters with occasional rainy periods.

Cool, humid, marine air causes frequent fog and low clouds along the coast, generally during the night and morning hours in the late spring and early summer months. The project area is subject to a diurnal cycle in which daily onshore winds from the west and northwest are replaced by mild offshore breezes flowing from warm inland valleys during night and early morning hours. This alternating cycle can create a situation where suspended pollutants are swept offshore at night, and then carried back onshore the following day. Dispersion of pollutants is further degraded when the wind velocity for both day and nighttime breezes is low. The region is also subject to seasonal "Santa Ana" winds. These are typically hot, dry northerly winds which blow offshore at 15 to 20 miles per hour (mph), but can reach speeds in excess of 60 mph.

Two types of temperature inversions (warmer air on top of cooler air) are created in the area: subsidence and radiational. The subsidence inversion is a regional effect created by the Pacific high in which air is heated as it is compressed when it flows from a high-pressure area to low pressure areas inland. This type of inversion generally forms at about 1,000 to 2,000 feet and can occur throughout the year, but it is most evident during the summer months. Radiational, or surface, inversions are formed by the more rapid cooling of air near the ground during the night, especially during winter. This type of inversion is typically lower (0 to 500 feet at Vandenberg Air Force Base, for example) and is generally accompanied by stable air. Both types of inversions limit the dispersal of air pollutants within the regional airshed, with the more stable the air (low wind speeds, uniform temperatures), the lower the amount of pollutant dispersion.

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

The predominant wind direction in the vicinity of project site is from the northwest, and the average wind speed is approximately 6.8 miles per hour (mph). The maximum average daily temperature in the project area is approximately 68 degrees Fahrenheit (°F), and the minimum average daily temperature is approximately 47°F. Total precipitation in the project area averages approximately 11 inches annually (Iowa Environmental Mesonet 2021).

2.1.2 Air Pollutants of Primary Concern

Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere. Primary criteria pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2), fine particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead. Ozone is considered a secondary criteria pollutant because it is created by atmospheric chemical and photochemical reactions between reactive organic compounds (ROC) and nitrogen oxides (NO_X). The project would generate CO, PM_{10}, $PM_{2.5}$, SO_2, and lead as well as ozone precursors ROC and NO_X (including NO_2) during construction and operation. These pollutants can have adverse impacts on human health at certain levels of exposure. The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO_X and ROC.[1] Nitrogen oxides are formed during the combustion of fuels, while ROC are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it usually occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions (United States Environmental Protection Agency [U.S. EPA] 2021). Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a local pollutant that is found in high concentrations near fuel combustion equipment and other sources of CO. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. The health effects of CO are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, nausea, reduced lung capacity, and impaired mental abilities (U.S. 2020).

Nitrogen Dioxide

Nitrogen dioxide is a byproduct of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of NO_X produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called

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

NO_X. NO_2 is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Elevated levels of NO_2 can also cause respiratory irritation, impaired pulmonary function, and bronchitis (U.S. EPA 2021). Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. It can also contribute to the formation of ozone/smog and acid rain.

Sulfur Dioxide

Sulfur dioxide is a colorless, pungent, irritating gas formed primarily by the combustion of sulfur-containing fossil fuels. When SO_2 oxidizes in the atmosphere, it forms sulfur trioxide (SO_3). Collectively, these pollutants are referred to as sulfur oxides (SO_X). In humid atmospheres, SO_2 can also form sulfuric acid mist, which can eventually react to produce sulfate particulates that can inhibit visibility. Combustion of high sulfur-content fuels is the major source, while chemical plants, sulfur recovery plants, and metal processing are minor contributors. At sufficiently high concentrations, SO_2 irritates the upper respiratory tract. At lower concentrations, when in conjunction with particulates, SO_2 appears to do still greater harm by injuring lung tissues. This compound also constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. Sulfur dioxide causes respiratory irritation, including wheezing, shortness of breath, and coughing (U.S. EPA 2021). Long-term SO_2 exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease. Sulfur oxides, in combination with moisture and oxygen, can yellow leaves on plants, dissolve marble, and eat away iron and steel.

Particulate Matter

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM_{10} (small particulate matter that measures 10 microns or less in diameter) and $PM_{2.5}$ (fine particulate that measures 2.5 microns or less in diameter). The characteristics, sources, and potential health effects associated with the PM_{10} and $PM_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer $PM_{2.5}$ particulates are generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. Elevated levels of PM_{10} can cause respiratory irritation, reduced lung function, aggravation of cardiovascular disease, and cancer (U.S. EPA 2021). $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. Elevated levels of $PM_{2.5}$ can cause respiratory stress and decreased lung function and increase the risk of long-term disease (U.S. EPA 2021). More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. Lead occurs in the atmosphere as particulate matter. The major sources of lead emissions historically have been mobile and industrial sources. In the early 1970s, the U.S. EPA set national regulations to

gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The U.S. EPA completed the ban prohibiting the use of leaded gasoline in highway vehicles in December 1995. As a result of the U.S. EPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries in part due to national emissions standards for hazardous air pollutants (U.S. EPA 2013). As a result of phasing out leaded gasoline, metal processing is currently the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. Lead may cause a range of health effects, including anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases). The proposed project does not include any stationary sources of lead emissions. Therefore, implementation of the project would not result in substantial emissions of lead, and this pollutant is not discussed further in this analysis.

Toxic Air Contaminants

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

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM; California Air Resources Board [CARB] 2021); however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities.

2.2 Air Quality Regulation

The federal and state governments have authority under the federal and state Clean Air Acts (CAA) to regulate emissions of airborne pollutants and have established ambient air quality standards (AAQS) for the protection of public health. An air quality standard is defined as "the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harming public health" (CARB 2019a). The U.S. EPA is the federal agency designated to administer air quality regulation, while CARB is the state equivalent in California. Federal and state AAQS have been established for six criteria pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. AAQS are designed to protect those segments of the public most susceptible to respiratory distress, such as children under the age of 14, the elderly (over the age of 65), persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases (United States Environmental Protection Agency 2016). In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more

stringent than the federal standards (California Air Resources Board 2019b and 2019c). The federal and state Clean Air Acts are described in more detail below.

Federal Air Quality Regulations

The federal CAA was enacted in 1970 and amended in 1977 and 1990 (42 United States Code [USC] 7401) for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, to achieve the purposes of Section 109 of the CAA (42 USC 7409), the U.S. EPA developed primary and secondary National Ambient Air Quality Standards (NAAQS). NAAQS have been designated for the following criteria pollutants: ozone, CO, NO_2, SO_2, $PM_{10,}$ $PM_{2.5}$, and lead.

The primary NAAQS "in the judgment of the Administrator[2], based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health," and the secondary standards are to "protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" (42 USC 7409[b][2]). The U.S. EPA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the NAAQS. States are required to adopt an enforceable plan, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS. State plans also must control emissions that drift across state lines and adversely affect air quality in downwind states. Once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. Areas that have been redesignated to attainment are called maintenance areas.

Table 2 lists the current federal standards for regulated pollutants. Santa Barbara County is designated nonattainment for 8-hour ozone and PM_{10}, but attainment or unclassified for all other NAAQS (SBCAPCD 2021).

[2] The term "Administrator" means the Administrator of the U.S. EPA.

Table 2 Federal and State Ambient Air Quality Standards

Pollutant	NAAQS	CAAQS
Ozone	0.070 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.070 ppm (8-hr avg)
Carbon Monoxide	35.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)	20.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)
Nitrogen Dioxide	0.100 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg) 0.5 ppm (3-hr avg) 0.14 ppm (24-hr avg) 0.030 ppm (annual avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	0.15 μg/m^3 (rolling 3-month avg) 1.5 μg/m^3 (calendar quarter)	1.5 μg/m^3 (30-day avg)
Particulate Matter (PM_{10})	150 μg/m^3 (24-hr avg)	50 μg/m^3 (24-hr avg) 20 μg/m^3 (annual avg)
Particulate Matter ($PM_{2.5}$)	35 μg/m^3 (24-hr avg) 12 μg/m^3 (annual avg)	12 μg/m^3 (annual avg)
Visibility-Reducing Particles	No Federal Standards	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape. (8-hr avg)
Sulfates	No Federal Standards	25 μg/m^3 (24-hr avg)
Hydrogen Sulfide	No Federal Standards	0.03 ppm (1-hr avg)
Vinyl Chloride	No Federal Standards	0.01 ppm (24-hr avg)

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; avg = average; μg/m^3 = micrograms per cubic meter

Source: CARB 2016

To derive the NAAQS, the U.S. EPA reviews data from integrated science assessments and risk/exposure assessments to determine the ambient pollutant concentrations at which human health impacts occur, then reduces these concentrations to establish a margin of safety (U.S. EPA 2018). As a result, human health impacts caused by the air pollutants discussed above may affect people when ambient air pollutant concentrations are at or above the concentrations established by the NAAQS. The closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant (Brief for San Joaquin Valley Unified Air Pollution Control District 2018). Accordingly, ambient air pollutant concentrations below the NAAQS are considered to be protective of human health (CARB 2019a and 2019b). The NAAQS and the underlying science that

forms the basis of the NAAQS are reviewed every five years to determine whether updates are necessary to continue protecting public health with an adequate margin of safety (U.S. EPA 2015).

State Air Quality Regulations

CALIFORNIA CLEAN AIR ACT

The California CAA was enacted in 1988 (California Health & Safety Code [H&SC] Section 39000 et seq.). Under the California CAA, the State has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 2 above lists the current CAAQS for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Similar to the federal CAA, the California CAA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant, based on the comparison of measured data within the CAAQS. Santa Barbara County is designated nonattainment for the 8-hour ozone and PM_{10} CAAQS and is designated attainment or unclassified for all other CAAQS (SBCAPCD 2021).

TOXIC AIR CONTAMINANTS

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

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

Local Air Quality Regulations

SBCAPCD

As the local air quality management agency, the SBCAPCD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the SCCAB is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts described in Section 2.1.2, *Air Pollutants of Primary Concern*, are already occurring in that area as part of the environmental baseline condition.

Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The *2001 Clean Air Plan* (2002) was the first

plan prepared by SBCAPCD and established specific planning requirements to maintain the state one-hour ozone standard. In 2006, CARB revised the CAAQS and added an 8-hour average to the ozone standard. Both components of the standard must now be met before CARB can designate an area to be in attainment. The most recent *2019 Ozone Plan* was adopted by SBCAPCD in December 2019 and was the sixth update to the *2001 Clean Air Plan*. The *2019 Ozone Plan* only addresses SBCAPCD's progress toward attaining the state ozone standard(SBCAPCD 2019).

To minimize potential impacts from project emissions, the SBCAPCD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the project include the following:

- **Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities):** This rule establishes fugitive dust control requirements for any activity associated with construction or demolition of a structure or structures (SBCAPCD 2010).
- **Rule 323.1 (Architectural Coatings):** This rule establishes volatile organic content limits for architectural coatings that are manufactured, blended, repackaged, supplied, sold, or offered for sale within the SBCAPCD. Rule 323.1 limits the volatile organic content to 50 grams per liter for flat coatings and 100 grams per liter for nonflat coatings and traffic marking coatings (SBCAPCD 2015).
- **Rule 329 (Cutback and Emulsified Asphalt Paving Materials):** This rule establishes ROC content limits pertaining to the manufacture, application, and sale of cutback and emulsified asphalt materials for paving, construction, and maintenance of streets, highways, parking lots, and driveways (SBCAPCD 1992).

CITY OF SANTA MARIA

The City of Santa Maria's General Plan, adopted in 1996, lists several air quality policies as part of its Resource Management Element that supplement those of the SBCAPCD. The following policy is applicable to the proposed project (City of Santa Maria 2001):

> **Policy 2.** Improve and maintain the quality of air to insure the health of all residents in the Santa Maria Valley by reducing mobile and stationary source air pollutant emissions through the use of efficient land use patterns, the implementation and promotion of alternative transportation modes and other transportation system management programs. (Refer to the Circulation Element for related policies and programs.)

2.3 Current Air Quality

The SBCAPCD operates a network of air quality monitoring stations throughout Santa Barbara County. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The monitoring station located closest to the project site is the Santa Maria monitoring station, located at 906 South Broadway approximately two miles northeast of the project site. Table 3 indicates the number of days that each of the standards has been exceeded at the Santa Maria monitoring station. As shown therein, the PM_{10} CAAQS was exceeded each year from 2018 to 2020, and the $PM_{2.5}$ NAAQS was exceeded in 2018 and 2020. No other state or federal standards were exceeded at this monitoring station over this time period. As discussed previously, Santa Barbara County is

designated nonattainment for 8-hour ozone and PM_{10} CAAQS and is designated attainment or unclassified for all other NAAQS and CAAQS (SBCAPCD 2021).

Table 3 Ambient Air Quality at the Santa Maria Monitoring Station

Pollutant	2018	2019	2020
Ozone (ppm), 8-Hr Average	0.048	0.052	0.059
Number of Days of state exceedances (>0.070 ppm)	0	0	0
Number of days of federal exceedances (>0.070 ppm)	0	0	0
Ozone (ppm), Worst Hour	0.052	0.059	0.063
Number of days of state exceedances (>0.09 ppm)	0	0	0
Number of days of federal exceedances (>0.112 ppm)	0	0	0
Nitrogen Dioxide (ppm) - Worst Hour	0.040	0.034	0.036
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns, μg/m^3, Worst 24 Hours[1]	62.3	132.5	113.3
Number of days of state exceedances (>50 μg/m^3)	13	15	32
Number of days above federal standard (>150 μg/m^3)	0	0	0
Particulate Matter <2.5 microns, μg/m^3, Worst 24 Hours[2]	40.4	14.7	88.4
Number of days above federal standard (>35 μg/m^3)	1	0	9

Source: CARB 2021b

Sensitive Receptors

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

The nearest sensitive receptors are single-family residences that are part of a residential development south of the A Street and La Brea Avenue intersection, the closest of which are 90 feet south of the project boundary. The residence closest to where development would occur on the project site is located approximately 560 feet to the southeast.

2.4 Impact Analysis

2.4.1 Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG

emissions associated with both construction and operations from a variety of land use projects. The model was developed by BREEZE Software for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of standardized data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, D, and E (CAPCOA 2021). The analysis reflects construction and operation of the project as described in Section 1.2, *Project Summary.* Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on client provided information. It was assumed that all construction equipment used would be diesel-powered and that the project would comply with all applicable regulatory standards. In particular, the project would comply with SBCAPCD Rules 345, 323.1, and 329.

Operational emissions modeled include area source emissions, energy emissions, and mobile source emissions (i.e., vehicle emissions). Emissions attributed to energy use include natural gas consumption for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coatings. Mobile source emissions are generated by vehicle trips to and from the project site. The project would not generate new long-haul truck trips as the new Box Shed warehouse would service as a new location for existing truck traffic that currently travels to the Maxco Plant located at 807 Main Street in Santa Maria location. Therefore, truck trips associated with the project would not generate net new emissions and these emissions are not included in the anlaysis. However, trips from future employees of the project were quantified. Based on project-specific information provided by the applicant, the number of daily employees trips would be 35 trips. The following assumptions were made to model mobile emissions for the project:

- The daily 35 trips from employees were captured under the Unrefrigerated Warehouse-No Rail land use in CalEEMod. The daily trip rate would be 0.62 trips per 1,000 square feet. The trips were assumed to be 100 primary trips and 100 percent employee to commercial site trips (C-W trips in CalEEMod).
- All employee trips were assumed to be made using light-duty vehicles (LD). These vehicles include passenger cars (LDA) and light-duty trucks (LDT1 and LDT2). The default fleet mix in CalEEMod was adjusted to reflect only a light-duty fleet mix for these trips.

2.4.2 Significance Thresholds

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

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

In January 2022, the SBCAPCD published the most recent update to its *Scope and Content of Air Quality Sections in Environmental Documents* (Guidelines). The Guidelines establish criteria for determining the level of significance for project-specific impacts within its jurisdiction in accordance with the above CEQA checklist thresholds.

SBCAPCD has not adopted quantitative significance criteria for temporary construction emissions associated with conventional land development projects. However, the SBCAPCD Guidelines recommends quantification of construction-related emissions and suggest a 25 tons per year for ROC or NO_X as a guideline for determining the significance of construction impacts(SBCAPCD 2022),. This is a limit that requires offsets if the construction activity is for a project that requires SBCAPCD permits but the limits also provides guidance for other construction projects involving standard grading and building activities. This is a thresholds that the City of Santa Maria has elected to use. In addition, SBCAPCD notes that consistency with the applicable air quality plan requires the implementation of mitigation measures during construction activities to minimize dust generation, regardless of the level of the impact (SBCAPCD 2022).

Based on the criteria suggested by the SBCAPCD Guidelines (2022), a proposed project would have a significant effect on air quality if operation of the project would:

- Generate from all project sources (both stationary and mobile) greater than 240 pounds per day of ROC;
- Generate from all project sources (both stationary and mobile) greater than 240 pounds per day of NO_X;
- Generate from all project sources (both stationary and mobile) greater than 80 pounds per day of PM_{10};
- Generate greater than 25 pounds per day of ROC from motor vehicle trips only;
- Generate greater than 25 pounds per day of NO_X from motor vehicle trips only; and
- Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); or
- Exceed the public notification health risk thresholds adopted by the SBCAPCD of 10 excess cancer cases in a million for cancer risk or a Hazard Index of more than 1.0 for non-cancer risk; or
- Exceed thresholds adopted in federal and state air quality plans for Santa Barbara County.

The Guidelines state that due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with congested intersections are not expected to exceed the CO health-related air quality standards. As such, CO hotspot analyses are no longer required.

2.4.3 Project Impacts

Threshold 1:	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The SBCAPCD Guidelines state that a project is consistent with the Clean Air Plan if its direct and indirect emissions have been accounted for in the Clean Air Plan's emissions forecast assumptions and if it would incorporate the standard fugitive dust control measures recommended by SBCAPCD during construction activities. The 2019 Ozone Plan's direct and indirect emissions inventory for the County as a whole is reliant on population projections provided by the Santa Barbara County Association of Governments (SBCAG). SBCAG generates population projections based on local General Plans. In this case, SBCAG utilized population projections contained in the City of Santa Maria's General Plan, which are based on existing and anticipated land uses in the city. The project would not result in new residential uses because it is an industrial development and would not require a zoning change that would result in additional employment opportunities beyond those anticipated for the site by the General Plan. Therefore, the project would not directly or indirectly contribute to an unplanned increase in population and would be consistent with the population projections on which the emissions forecast of the 2019 Ozone Plan is based. Furthermore, in accordance with standard practices in the City, the following standard SBCAPCD fugitive dust control measures would be required for project implementation:

- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site and from exceeding SBCAPCD's limit of 20 percent opacity for greater than three minutes in any 30 minute period. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever the wind speed exceeds 15 miles per hour (mph). Reclaimed water shall be used whenever possible. However, reclaimed water shall not be used in or around crops for human consumption.
- The amount of disturbed area shall be minimized.
- On-site vehicle speeds shall be no greater than 15 mph when traveling on unpaved surfaces.
- A track-out prevention device shall be installed and operated where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel washing systems.
- If stockpiling of material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation.
- After clearing, grading, earth moving or excavation is completed, the disturbed area shall be treated by watering, or using roll-compaction, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All driveways and sidewalks to be paved/surfaced shall be completed as soon as possible.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. Their duties shall include holiday and weekend periods when work may not be in progress. The

name and telephone number of such persons shall be provided to the SBCAPCD prior to grading/building permit issuance and/or map clearance.

- The project applicant shall comply with SBCAPCD Rule 345: Control of Fugitive Dust from Construction and Demolition Activities, including all applicable standards and measures therein.

Therefore, the proposed project would be consistent with the applicable air quality plan, and impacts would be less than significant.

Threshold 2:	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Impact AQ-2 PROJECT CONSTRUCTION AND OPERATION WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

Construction activities would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$), exhaust emissions from heavy construction vehicles, and ROC that would be released during the drying phase after application of architectural coatings. Table 4 summarizes emissions that would be generated under project construction. As shown therein, construction emissions generated under construction would not exceed the SBCAPCD threshold of 25 tons per year for ROC or NO_x.

Table 4 Estimated Annual Construction Emissions

	Annual Emissions (tons per year)					
Construction Year	**ROC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2022	1	2	2	<1	<1	<1
SBCAPCD Thresholds	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including SBCAPCD Rules 345, 323.1,and 329) and project design features.

Operation

Table 5 summarizes the project's operational emissions by emission source (area, energy, mobile and off-road equipment) under project operation. As shown in Table 5, operational emissions from the project would not exceed SBCAPCD thresholds. Therefore, impacts would be less than significant.

Table 5 Estimated Average Daily Operational Emissions

	Average Daily Emissions (pounds per day)					
Emissions Source	**ROC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area	2	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	1	<1	<1	<1
Total	**2**	**<1**	**1**	**<1**	**<1**	**<1**
Threshold (area + energy + mobile)	240	240	N/A	N/A	80	N/A
Threshold Exceeded?	No	No	N/A	N/A	No	N/A
Threshold (mobile only)	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including SBCAPCD Rule 323.1) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL CONCENTRATIONS OF TAC EMISSIONS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As discussed under Section 2.3, *Current Air Quality*, the closest sensitive receptor to project development is a single-family residence approximately 560 feet south of the project site. The SBCAPCD states that localized air quality impacts to sensitive receptors typically result from TACs (SBCAPCD 2022). The proposed project's impacts related to each of these pollutants is detailed below.

Construction

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

risk assessment is not required for short-term construction projects (SBCAPCD 2022). Instead, the project's TAC impacts from construction are discussed qualitatively.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately five months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period (assumed to be the approximate time that a person spends in a household). OEHHA recommends this risk be bracketed with 9-year and 70-year exposure periods. Health risk assessments should be limited to the period/duration of activities associated with the project.

The maximum $PM_{2.5}$ emissions, which is used to represent DPM emissions for this analysis, would occur during site preparation activities. While site preparation emissions represent the worst-case condition, such activities would only occur for approximately four weeks, less than two percent, one percent, and 0.2 percent of the typical health risk calculation period of 9 years, 30 years, and 70 years, respectively. $PM_{2.5}$ emissions would decrease for the remaining construction period because construction activities such as building construction and paving would require less construction equipment. Therefore, given the short duration of exposure, DPM generated by project construction is not expected to create conditions where the probability that the Maximally Exposed Individual would contract cancer is greater than 10 in one million or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than one in one million for the Maximally Exposed Individual. Construction impacts to sensitive receptors would be less than significant.

Operational

The project is an industrial development that would generate new diesel-fueled truck trips in the area as well as on-site idling, which would be a potential source of TAC emissions, specifically DPM exhaust emissions. The nearest sensitive receptor to project development is approximately 560 feet southeast of the project site and approximately 1,300 feet southeast from the nearest loading dock. The loading docks are located on the northern end of the Box Shed warehouse.

CARB's *Air Quality and Land Use Handbook* (2005) recommends siting sensitive receptors more than 1,000 feet away from distribution centers that generate more than 100 diesel-fueled truck trips per day. Based on project-specific operational characteristics, there would be 285 Box Shed warehouse trips per day to the project site. These trips are assumed to all be diesel-fueled long-haul truck trips. The number of trips would exceed CARB's threshold of 100 diesel-fueled truck trips per day; however, the nearest sensitive receptor would be over 1,300 feet southeast of the loading docks and the entry and exit points for the project site. Therefore, there is adequate distance between the sensitive receptors and the new diesel-fueled truck trips. In addition, idling of each truck would be limited to five consecutive minutes and operation of diesel-fueled internal combustion engine auxiliary power systems would not be allowed for greater than five minutes within 100 feet of residences pursuant to 13 California Code of Regulations Section 2485. Furthermore, the project would not site a new stationary source, such as a diesel generator, on the project site. As such,

project operation would not expose sensitive receptors to substantial TAC emissions, and impacts would be less than significant.

Threshold 4:	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4 THE PROJECT WOULD NOT GENERATE OTHER EMISSIONS, SUCH AS THOSE LEADING TO ODORS, ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE DURING CONSTRUCTION OR OPERATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would generate oil and diesel fuel odors during construction from equipment use. The odors would be limited to the construction period and would be intermittent and temporary. Furthermore, these odors would dissipate rapidly with distance from in-use construction equipment, and the nearest sensitive receptors to project development are located approximately 560 feet away from the project site. Accordingly, project construction would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people, and impacts would be less than significant.

Potential sources that may emit odors during operation of the proposed project would include diesel fuel odor emissions from the intermittent diesel delivery truck emissions. However, trucks would be required to comply with California Code of Regulations Title 13, Section 2485, which limits delivery truck idling times to five minutes or less. Limiting truck idling times would reduce the potential for nuisance odors associated with diesel exhaust emissions in the vicinity of the project site. Furthermore, the project would be required to comply with the requirements of SBCAPCD Rule 303, which prohibits the discharge of air contaminants or other material that would cause injury, detriment, nuisance or annoyance to any considerable number of persons. In addition, the nearest sensitive receptor is located approximately 560 feet south of the project site, and odors disperse rapidly with distance. Therefore, due to the distance of the nearest sensitive receptors from the project site and compliance with SBCAPCD Rule 303, project operation would not result in other emissions, such as those leading to odors, adversely affecting a substantial number of people, and impacts would be less than significant.

2.4.4 Cumulative Impact Analysis

The geographic scope for the cumulative air quality impact analysis is Santa Barbara County. Because Santa Barbara County is designated non-attainment for the PM_{10} CAAQS, there is an existing significant cumulative air quality issue related to this pollutant. Based on SBCAPCD thresholds, a project would have a significant cumulative impact if it is inconsistent with the applicable adopted federal and state air quality plans (in this case, the 2019 Ozone Plan). As discussed under Impact AQ-1, the project would be consistent with the 2019 Ozone Plan. Therefore, the project would not result in a cumulatively considerable contribution to air quality impacts related to criteria air pollutant emissions.

The project is not located in close proximity to existing or planned projects that would generate TAC or odor emissions affecting a substantial number of people. In addition, SBCAPCD Rule 303, which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public, would minimize the potential for nuisance odors. Therefore, no cumulative TAC or odor emissions impacts would occur.

3 Greenhouse Gas Emissions

3.1 Environmental and Regulatory Setting

3.1.1 Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of greenhouse gas (GHG) emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).[3]

The United Nations IPCC expressed that the rise and continued growth of atmospheric CO2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatons of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021). Furthermore, since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (United States Environmental Protection Agency 2021). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

[3] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

3.1.2 Greenhouse Gas Emissions Inventory

Global Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 49,000 million metric tons (MMT) of CO_2e in 2010 (IPCC 2014a). Carbon dioxide emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant, accounting for over 75 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while N_2O and fluorinated gases accounted for 6 percent and 2 percent, respectively (IPCC 2014a).

United States Emissions Inventory

Total United States GHG emissions were 6,558 MMT of CO_2e in 2019. Emissions increased by 1.7percent from 2018 to 2019, and since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. In 2019, the transportation and industrial end-use sectors accounted for 38 percent and 27 percent, respectively, of nationwide GHG emissions while the residential and commercial end-use sectors accounted for 19percent and 17 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2021).

California Emissions Inventory

Based on the California Air Resource Board's (CARB) California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT of CO_2e in 2019. The major source of GHG emissions in California is transportation, contributing 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 21 percent of the state's GHG emissions while electric power accounts for approximately 14 percent (CARB 2021). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction targets as emissions fell below 431 MMT of CO_2e (CARB 2019).

3.1.3 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) from 2015 to 2017 was approximately 1.0°C higher than the average GMST over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations jointly indicate that LSAT and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014a and 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). Although there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2020, observed by satellites, is approximately 3.3 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2020). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Aeronautics and Space Administration 2020). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise of 0.25 to 0.94 meter by 2100 (IPCC 2018). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has an over $50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions as a result of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

3.1.4 Regulatory Setting

The following regulations and case law address both climate change and GHG emissions.

Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that the U.S. EPA has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act. The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the U.S. EPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the U.S. E.PA and the National Highway Traffic Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the U.S. E.PA and the National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO_2 emissions standards for passenger cars and trucks of model years 2021-2026 such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the approximately five percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2020).

State Regulations

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

California Advanced Clean Cars Program

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the U.S. EPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards

than those promulgated by the U.S. EPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles, and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

California Global Warming Solutions Act of 2006 (Assembly Bill 32 and Senate Bill 32)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed later). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns

regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline CEQA processing.

On March 22, 2018, CARB adopted updated regional targets for reducing per capita passenger vehicle GHG emissions from 2005 levels by 2020 and 2035. SBCAG was assigned targets of a 13 percent reduction in per capita GHG emissions from passenger vehicles relative to 2005 levels by 2020 and a 17 percent reduction in per capita GHG emissions from passenger vehicles relative to 2005 levels by 2035. The SBCAG Connected 2050 RTP/SCS (2021) would demonstrated that the SBCAG region would achieve its initial regional emissions reduction targets for the 2020 and 2035 target years.

Senate Bill 1383

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statues of 2016) requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

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

As a result, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy in 2017 and has initiated implementation. SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills. CalRecycle has initiated the rulemaking process for these regulations with the proposed regulation text submitted to the Office of Administrative Law in October 2020.

Senate Bill 100

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

Executive Order B-55-18

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

California Building Standards Code

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title

24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS/ENERGY CODE

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC). The 2019 Title 24 standards are the applicable building energy efficiency standards for the project because they became effective on January 1, 2020.

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2019 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers (Tiers I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- 20 percent reduction in indoor water use relative to specified baseline levels;[4]
- 65 percent construction/demolition waste diverted from landfills;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards;
- Dedicated circuitry to facilitate installation of electric vehicle charging stations in newly constructed attached garages for single-family and duplex dwellings; and
- Installation of electric vehicle charging stations at least three percent of the parking spaces for all new multi-family developments with 17 or more units.
- PV systems battery, storage systems, and solar ready for newly constructed residential dwellings, including single-family, and low-rise (three or fewer habitable floors) multifamily buildings.

The voluntary standards require:

- **Tier I:** stricter energy efficiency requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste with third-party verification, 10 percent recycled content for building materials, 20 percent permeable paving, 20 percent cement reduction.

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

- **Tier II:** stricter energy efficiency requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste with third-party verification, 15 percent recycled content for building materials, 30 percent permeable paving, 25 percent cement reduction.

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

California Integrated Waste Management Act (Assembly Bill 341)

The California Integrated Waste Management Act of 1989, as modified by AB 341 in 2011, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995 through source reduction, recycling, and composting activities and (2) diversion of 50 percent of all solid waste on and after January 1, 2000.

Local Regulations

SBCAG 2050 RTP/SCS

SBCAG adopted its 2050 RTP/SCS (titled Connected 2050) in August 2021. This plan shows how the region will achieve the required SB 375 targets and demonstrates the co-benefits of reducing criteria pollutants. The 2050 RTP/SCS explores the region's land use and travel patterns, accounts for the demographic growth that will force new demands on both, and presents a vision for how they can work together to satisfy the goals important to the region while also meeting the State's greenhouse gas reduction targets. The 2050 RTP/SCS preferred scenario is a Transit-Oriented Development (TOD)/Infill plan in that it strives to accommodate future growth within existing urban areas along transit corridors. The intent of these proposed changes is to shorten trip distances and reduce vehicle miles traveled and emissions by; directly addressing regional jobs/housing imbalance by providing more housing on the jobs-rich South Coast and more jobs in the North County; and promoting more trips, both local and inter-city, by alternative transportation modes, including by foot, bike, or transit. The 2050 RTP/SCS meets and exceeds the California Air Resources Board -17 percent per capita targets for reduction of GHG emissions from passenger vehicles for target year 2035 (SBCAG 2021).

City of Santa Maria

The City of Santa Maria has not adopted a qualified greenhouse gas reduction plan pursuant to CEQA Guidelines Section 15183.5(b)(1). Therefore, this analysis does not utilize the tiering and streamlining provisions of CEQA Guidelines Section 15183.5(b)(2) in evaluating the significance of the project's impacts related to GHG emissions.

3.2 Impact Analysis

3.2.1 Methodology

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98 percent of all GHG emissions by volume and are the GHG emissions the project would emit in the largest quantities (IPCC 2014a). Emissions of all GHGs are converted into their equivalent GWP in terms of CO_2 (i.e., CO_2e). Minimal amounts of other GHGs (such as chlorofluorocarbons) would be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. GHG emissions associated with the proposed project were calculated using CalEEMod version 2020.4.0 (see Appendix B for calculations). Calculations are based on the methodologies discussed in the CAPCOA CEQA and Climate Change white paper (CAPCOA 2008).

As described in Section 2.4.1*, Methodology*, the project was analyzed using emissions generated from the Box Shed warehouse, Office and associated parking spaces.

Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment, on-road construction vehicles (e.g., water and material delivery trucks), and the commute vehicles of construction workers. Smaller amounts of GHGs are emitted indirectly through the energy required for water used for fugitive dust control and lighting for the construction activity. Every phase of the construction process, including site preparation, grading, building construction, concrete, and architectural coating emits GHG emissions in volumes proportional to the quantity and type of construction equipment used. Heavier equipment typically emits more GHGs per hour than lighter equipment because of its engine design and greater fuel consumption requirements.

CalEEMod estimates construction emissions by multiplying the time equipment is in operation by emission factors. Construction would begin in October 2021 and would be completed by September 2022. Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, “more study is needed to make this assessment or to develop separate thresholds for construction activity” (CAPCOA 2008). Nevertheless, the County of Santa Barbara has recommended amortizing construction-related emissions over a period of 30 years (i.e., the default project lifespan) and added to proposed project’s operational emissions (County of Santa Barbara 2021). Therefore, the project’s construction emissions were amortized over 30 years.

Operational Emissions

Area Source Emissions

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating, were calculated in CalEEMod and utilize standard emission rates from CARB, U.S. EPA, and emission factor values provided by the local air district (CAPCOA 2017).

Energy Use Emissions

GHGs are emitted on-site during the combustion of natural gas for space and water heating and off-site during the generation of electricity from fossil fuels in power plants. CalEEMod estimates GHG emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by electricity and natural gas GHG emission factors applicable to the project location and utility provider.

Building energy use is typically divided into energy consumed by the built environment and energy consumed by uses that are independent of the building, such as plug-in appliances. Non-building energy use, or "plug-in energy use," can be further subdivided by specific end-use (refrigeration, cooking, office equipment, etc.). In California, Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. CalEEMod currently incorporates California's 2019 Title 24 building energy efficiency standards.

The project would be served by either Central Coast Community Energy or Pacific Gas and Electric (PG&E). The project is assumed to procure electricity from PG&E. As the project is planned for construction in June 2022, with an assumed operational date of 2022 it would be subject to at least 2019 Title 24 standards

Mobile Source Emissions

For mobile sources, CO_2, CH_4, and N_2O emissions were quantified in CalEEMod based on project-specific trip generation rates.

Water and Wastewater Emissions

Water used and wastewater produced by a project generate indirect GHG emissions. These emissions are a result of the energy used to supply, convey, and treat water and wastewater. In addition to the indirect GHG emissions associated with energy use, the wastewater treatment process itself can directly emit both CH_4 and N_2O.

The outdoor water use consumption data for the project would be 1,036,088 gallons per use based on water usage calculations for the project's landscaped area. For the indoor water use, it was assumed that the primary water usage would taken place in the office space of the Box Shed warehouse. Using the CalEEMod indoor water rate of 177,735 gallons per size per year for a General Office Building and the proposed 2,019 square feet of office space, the annual indoor water usage would be 358,847 gallons per year.

Solid Waste Emissions

The disposal of solid waste produces GHG emissions from the transportation of waste, anaerobic decomposition in landfills, and incineration. To calculate the GHG emissions generated by solid waste disposal, the total volume of solid waste was calculated using waste disposal rates identified by CalRecycle. The methods for quantifying GHG emissions from solid waste are based on the IPCC method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters. As of 2016, California had achieved a statewide 50 percent diversion of solid waste from landfills through "reduce/recycle/compost" programs (CalRecycle 2020).

3.2.2 Significance Thresholds

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

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

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

According to CEQA Guidelines Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. Currently, the City of Santa Maria has not adopted a Climate Action Plan or a qualified GHG reduction plan. However, under CEQA Guidelines Section 15183.5, the lead agency has discretion to select a model or methodology it considers most appropriate to enable decision makers to intelligently account for the project's incremental contribution to climate change. The City has determined that the use of a locally-applicable 2030 project-specific threshold is the most appropriate threshold to use to evaluate project impacts, which is detailed in the following subsection.

Project-Specific Efficiency Threshold

Efficiency thresholds are quantitative thresholds based on a measurement of GHG efficiency for a given project, regardless of the amount of mass emissions. These thresholds identify the emission level below which new development would not interfere with attainment of statewide GHG reduction targets. A project that attains such an efficiency target, with or without mitigation, would result in less than significant GHG emissions. A locally-applicable 2030 project-specific threshold is derived from CARB's recommendations in the 2017 Climate Change Scoping Plan Update, as discussed below.

With the release of the 2017 Climate Change Scoping Plan Update, CARB recognized the need to balance population growth with emissions reductions and in doing so, provided a new local plan level methodology for target setting that provides consistency with state GHG reduction goals using per capita efficiency thresholds. A project-specific efficiency threshold can be calculated by dividing statewide GHG emissions by the sum of statewide jobs and residents. However, not all statewide

emission sources would be impacted by the proposed land use (e.g., agriculture and industrial). Accordingly, consistent with the concerns raised in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the 2030 statewide inventory target was modified with substantial evidence provided to establish a locally- applicable, evidence-based, commercial project-specific threshold consistent with the SB 32 target.

To develop this threshold, the local planning area was first evaluated to determine emissions sectors that are present and would be directly affected by potential land-use changes. A description of major sources of emissions that are included in the State Scoping Plan emissions sectors and representative sources in Santa Maria can be found in Table 6.

According to Table LU-2 (Existing Land Uses as of January 1, 2011) in the City's General Plan Land Use Element, there are no agricultural land uses within the City, and the project does not involve agricultural activities, which are defined in the 2017 Scoping Plan emissions inventory as enteric fermentation, crop residue burning, and manure management. Therefore, the Agricultural Emissions Sector was considered locally inappropriate and was removed from the State 2030 emissions forecast. Furthermore, Industrial Sector source emissions (defined as oil, gas, and hydrogen production; refineries; general fuel use; and mining operations in the 2017 Scoping Plan emissions inventory) would not be directly impacted by the proposed project; therefore the Industrial Emissions Sector was removed from the State 2030 emissions forecast to retain a more conservative locally-applicable target.[5] Additionally, Cap and Trade emissions reductions occur independent of any local jurisdictional land use decisions and were also excluded from the locally-applicable target.

After removing Agricultural, Industrial, and Cap and Trade emissions, the remaining emissions sectors with sources within the Santa Maria planning area were then summed to create a locally-applicable emissions total for a general industrial project in Santa Maria. This locally-applicable emissions total is divided by the statewide 2030 service person population to determine a locally-applicable, project-level threshold of 3.3 MT of CO_2e per service population that is consistent with SB 32 targets, as shown in Table 6 and Table 7.

[5] Light and general industrial as well as heavy commercial/manufacturing land uses are present in Santa Maria; however, these land uses (including the unrefrigerated warehouse land use that is part of the proposed project) are considered part of the Commercial sector rather than the Industrial sector for the purposes of the 2017 Scoping Plan. See CARB GHG Emissions Inventory Scoping Plan Categorization for details, available at: https://www.arb.ca.gov/cc/inventory/data/data.htm

Table 6 SB 32 Scoping Plan Emissions Sector Targets

GHG Emissions Sector[1]	2030 State Emissions Target (MMT)[1]	Locally Applicable[2]	Project Specific	Major Sources[3]
Residential and Commercial[4]	38	Yes	Yes	Natural gas end uses, including space and water heating of buildings
Electric Power	53	Yes	Yes	Electricity uses, including lighting, appliances, machinery and heating
High GWP	11	Yes	Yes	SF_6 from power stations, HFCs from refrigerants and air conditioning[5]
Recycling and Waste	8	Yes	Yes	Waste generated by residential, commercial, and other facilities
Transportation	103	Yes	Yes	Passenger, heavy duty, and other vehicle emissions
Industrial[4]	83	Yes	No	Oil, gas, and hydrogen production; refineries; general fuel use; and mining operations do not occur substantially within the City and are not part of the proposed project
Agriculture	24	No	No	Enteric fermentation, crop residue burning, and manure management do not occur substantially within the City and are not part of the proposed project
Cap and Trade Reductions	-60	No	No	Reductions from facilities emitting more than 10,000 MT CO_2e per year[6]
Scoping Plan Target (All Sectors)	**260**	**No**	**No**	**All emissions sectors**
Locally Inapplicable Sector (Industrial)[4]	-83	No	No	Oil, gas, and hydrogen production; refineries; general fuel use; and mining operations
Locally Inapplicable Sector (Agriculture)	-24	No	No	Enteric fermentation, crop residue burning, and manure management
Locally Inapplicable Sector (Cap and Trade)	60	No	No	Reductions from facilities emitting more than 10,000 MT CO_2e per year[6]
2030 Locally Applicable Emissions Sectors	**213**	**Yes**	**Yes**	**Emissions applicable to the local planning area and proposed project**

MMT = million metric tons

[1] All State targets in MMT CO_2e. See the 2017 Climate Change Scoping Plan, page 31 for sector details (CARB 2017).

[2] Locally-applicable is defined as having significant emissions in Scoping Plan Categorization categories within Santa Maria.

[3] See CARB GHG Emissions Inventory Scoping Plan Categorization for details, available at: https://www.arb.ca.gov/cc/inventory/data/data.htm

[4] Light and general industrial as well as heavy commercial/manufacturing land uses are present in Santa Maria; however, these land uses are considered part of the Commercial sector rather than the Industrial sector for the purposes of the 2017 Scoping Plan.

[5] SF_6 is used primarily as an insulator in electrical substations while HFCs can be found in many residential and commercial refrigeration and air conditioning units. HFCs are in the process of being phased out through 2036 in most developed countries.

[6] Cap and Trade is excluded as reductions will occur independent of local project land use decisions and are therefore not locally appropriate.

Table 7 SB 32 Locally-Appropriate Project-Specific Threshold

Scenario	Units	Values
California 2017 Climate Change Scoping Plan	California 2030 Population (persons)[1]	41,860,549
	California 2030 Employment Projection (persons)[2]	23,459,500
	Service Population (persons)	65,320,049
Locally-Appropriate 2030 Project Threshold	2030 Locally-Appropriate Emissions Sectors (MT of CO_2e)	213,000,000
	2030 Service Population (persons)	65,320,049
	2030 Service Person Target (MT of CO_2e per Service Person)	3.3[3]

[1] California Department of Finance 2020

[2] Average of employment range projections under implementation scenario. See CARB 2017 Climate Change Scoping Plan Update, page 55 (CARB 2017).

[3] Total of 3.26 has been rounded up per Scoping Plan general methodology. Lead agencies may determine this threshold as they deem appropriate.

At this time, the State has codified a target of reducing emissions to 40 percent below 1990 emissions levels by 2030 (SB 32) and has developed the 2017 Scoping Plan to demonstrate how the State will achieve the 2030 target and make substantial progress toward the 2050 goal of an 80 percent reduction in 1990 GHG emission levels set by EO S-3-05. In EO B-55-18, which identifies a new goal of carbon neutrality by 2045 and supersedes the goal established by EO S-3-05, CARB has been tasked with including a pathway toward the EO B-55-18 carbon neutrality goal in the next Scoping Plan update.

While State and regional regulators of energy and transportation systems, along with the State's Cap and Trade program, are designed to be set at limits to achieve most of the reductions needed to hit the State's long-term targets, local governments can do their fair share toward meeting the State's targets by siting and approving projects that accommodate planned population growth and projects that are GHG-efficient. The AEP Climate Change Committee recommends that CEQA GHG analyses evaluate project emissions in light of the trajectory of state climate change legislation and assess their "substantial progress" toward achieving long-term reduction targets identified in available plans, legislation, or EOs. Consistent with AEP Climate Change Committee recommendations, GHG impacts are analyzed in terms of whether the proposed project would impede "substantial progress" toward meeting the reduction goal identified in SB 32 and EO B-55-18. As SB 32 is considered an interim target toward meeting the 2045 State goal, consistency with SB 32 would be considered contributing substantial progress toward meeting the State's long-term 2045 goals. Avoiding interference with, and making substantial progress toward, these long-term State targets is important because these targets have been set at levels that achieve California's fair share of international emissions reduction targets that will stabilize global climate change effects and avoid the adverse environmental consequences described under Section 3.1.4, *Regulatory Setting* (EO B-55-18).

3.2.3 Project-Level Impact Analysis

Threshold 1:	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD GENERATE TEMPORARY AND LONG-TERM INCREASES IN GHG EMISSIONS THAT MAY RESULT IN A SIGNIFICANT IMPACT ON THE ENVIRONMENT RELATED TO CLIMATE CHANGE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction of the proposed project would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials and soil export. As shown in Table 8, construction of the project would generate an estimated total of 333 MT of CO_2e. Amortized over a 30-year period per County of Santa Barbara guidance, construction of the project would generate an estimated total of 11 MT of CO_2e per year.

Table 8 Estimated GHG Emissions during Construction

Year	Annual Emissions (MT of CO_2e)
2022	353
Amortized over 30 years	**12**

MT = metric tons; CO_2e = carbon dioxide equivalents
See Appendix B for modeling results.

Operation of the proposed project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, wastewater and solid waste generation, and off-road equipment. As shown in Table 9, total combined annual GHG emissions generated by the project would be approximately 95 MT of CO_2e per year. Emissions per service person for the project would be approximately 3.2 MT of CO_2e per year, which would not exceed the locally-applicable, project-specific efficiency threshold of 3.3 MT of CO_2e per year. Therefore, impacts would be less than significant.

Table 9 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO_2e per year) Box Shed and Office Space
Construction	12
Operational	
Area	<1
Energy	33
Mobile	22
Solid Waste	27
Water	1
Total Emissions	95
Emissions per Service Person	3.2[3]
Service Population Threshold	3.3 per service person
Service Population Threshold Exceeded?	No

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] The service population for the project is 30 persons, as noted in the traffic study (ATE 2021)

Notes: See Appendix B for modeling results.

Threshold 2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Impact GHG-2 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE SBCAG 2050 RTP/SCS OR THE 2017 SCOPING PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As discussed under Section 3.1.4, *Regulatory Setting*, plans have been adopted to reduce GHG emissions in Santa Barbara County and at the state level. The project's consistency with the SBCAG 2050 RTP/SCS, and the 2017 Scoping Plan are discussed below.

SBCAG 2050 RTP/SCS

SBCAG has incorporated a sustainable community strategy into its RTP/SCS, which is designed to help the region achieve its SB 375 GHG emissions reduction target. The SBCAG 2050 RTP/SCS demonstrates that the SBCAG region would achieve its regional emissions reduction targets for the 2020 and 2035 target years. The RTP/SCS states that one of the intents of the SCS is "directly addressing regional jobs/housing imbalance by providing more housing on the jobs-rich South Coast and more jobs to communities in the North County [e.g., Santa Maria]" (SBCAG 2021). Improving the intra-County imbalance would decrease transportation demands on United States Highway 101 and State Route 154, which would reduce congestion and vehicle miles traveled (VMT). Therefore, the project would be consistent with the RTP/SCS by creating job opportunities in Santa Maria. The

project would generate 30 employment opportunities at the new Box Shed warehouse. Furthermore, in support of RTP/SCS Environment Objective 5 of "Reduce vehicle miles traveled," the project would site a new industrial facility that would reduce the trip length for some truck trips in Santa Maria. The project site is located closer to farmers compared to the existing facility, which would contribute to reducing regional VMT.

2017 Scoping Plan

The principal state plans and policies regarding GHG emissions are AB 32, the California Global Warming Solutions Act of 2006, and the subsequent legislation, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use, energy demand, and VMT; maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, solar PV panels, and EV charging stations. The project would be served by Pacific Gas and Electric or Central Coast Community Energy, both of which are required to increase its renewable energy procurement in accordance with SB 100 targets. As discussed earlier, the project would improve the jobs-housing balance by creating job opportunities in Santa Maria and reducing the truck trip length between the facility and farmers. These factors would reduce future employees' VMT and associated fossil fuel usage. Furthermore, the project would be required to comply with the State's recycling and composting requirements for commercial businesses under AB 341, which requires businesses generating four or more cubic yards of solid waste per week to recycle, and AB 1826, which requires businesses generating two or more cubic yards of solid waste per week to recycle organic waste. Compliance with these state laws would maximize the project's recycling and solid waste diversion. Therefore, the project would be consistent with the 2017 Scoping Plan.

3.2.4 Cumulative Impact Analysis

The geographic scope for related projects considered in the cumulative impact analysis for GHG emissions is global because impacts of climate change are experienced on a global scale regardless of the location of GHG emission sources. Therefore, GHG emissions and climate change are, by definition, cumulative impacts. As discussed in Section 3.1.3, *Potential Effects of Climate Change*, the adverse environmental impacts of cumulative GHG emissions, including sea level rise, increased average temperatures, more drought years, and more large forest fires, are already occurring. As a result, cumulative impacts related to GHG emissions are significant. Thus, the issue of climate change involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. As discussed under Thresholds 1 and 2, project impacts related to GHG emissions would be less than significant and would therefore not be cumulatively considerable.

4 Conclusions

All of the project's air quality impacts related to construction and operation would be less than significant. Population growth associated with the proposed project would be within SBCAG regional growth projections; therefore, the project would be consistent with the AQMP. Project construction and operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Project construction and operation would not expose sensitive receptors to substantial pollutant concentrations related to TAC emissions.

Construction and operational emissions generated by the project would not exceed the locally-applicable, project-specific efficiency threshold of significance of 3.3 MT of CO_2e per year. The service population emissions would be 3.2 MT of CO_2e per year. Furthermore, the project would not conflict with the SBCAG 2050 RTP/SCS or the 2017 Scoping Plan. Therefore, impacts related to consistency with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs would be less than significant.

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Appendix A

Project Site Plans

MAXCO PACKAGING FACILITY

1550 WEST STOWELL ROAD SANTA MARIA, CALIFORNIA



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MAXCO PACKAGING FACILITY
PLANNED DEVELOPMENT PERMIT PACKAGE
1550 WEST STOWELL ROAD SANTA MARIA, CA

COVER SHEET

DATE
MAY 10, 2022

ARRIS PROJECT #
A21055

CITY APPLICATION #
PD2021-0006

SHEET #
A00

MAXCO PACKAGING FACILITY

1550 WEST STOWELL ROAD SANTA MARIA, CALIFORNIA

PROJECT STATISTICS

SITE INFORMATION

ADDRESS	1550 WEST STOWELL ROAD SANTA MARIA CA.		
ASSESSOR PARCEL NUMBER	117-820-015		
SITE AREA			
MAXCO AREA		10.16 ACRES	442,582 SF
UNIMPROVED AREA (AREA NOT DEVELOPED)		9.63 ACRES	419,614 SF
OFFER OF DEDICATION		0.21 ACRES	9,102 SF
TOTAL SITE AREA		**20.00 ACRES**	**871,298 SF**
ZONING	PD PLANNED DEVELOPM'T OVERLAY CM COMMERCIAL/MANUFACTURING AG		
EXISTING USE	VACANT		
PROPOSED USE	OFFICE, BOX MANUFACTURING		
SETBACKS (MINIMUM YARDS REQUIRED)			
FRONT YARD	20'-0" FOR BUILDINGS 10'-0" FOR PARKING		
SIDE & REAR YARDS	NO YARD REQ'D		

BUILDING INFORMATION

OCCUPANCY TYPE	F-1 MODERATE-HAZARD FACTORY B BUSINESS	
CONSTRUCTION TYPE	TYPE V-B	
SPRINKLERS	YES, NFPA 13	
BUILDING HEIGHT		
ALLOWABLE	40'-0" (DICTATED BY ZONING)	
PROPOSED	28'-6"	
BUILDING AREA		
BOX MANUFACTURING		60,000 SF
OFFICE w/ RESTROOM		2,019 SF
TOTAL BUILDING AREA		**62,019 SF**

PARKING INFORMATION

PARKING REQUIRED	
WAREHOUSE/MANUFACTURING	115 SPACES
PROVIDE 1 SPACE/520 SF OF MANUFACTURING. 60,000 SF / 520 SF = 115 SPACES	
OFFICE	8 SPACES
PROVIDE 1 SPACE/260 SF OF OFFICE SPACE. 2,019 SF / 260 SF = 8 SPACES	
TOTAL REQUIRED	**123 SPACES**
PARKING PROVIDED	
STANDARD SPACES	138 SPACES
ACCESSIBLE SPACES	5 SPACES
TOTAL PARKING PROVIDED:	**143 SPACES**

PROJECT DESCRIPTION

THIS PROJECT PROPOSES A NEW MANUFACTURING BUILDING ON A VACANT LOT LOCATED AT 1550 WEST STOWELL ROAD IN SANTA MARIA, CALIFORNIA. THIS NEW PRE-ENGINEERED METAL BUILDING WILL BE A 1-STORY BUILDING, TYPE V-B CONSTRUCTION, WITH OFFICE LOCATED ON THE MEZZANINE.

THIS IS A PRE-ENGINEERED METAL BUILDING THAT WILL BE INSTALLED ON SITE WITH SLAB ON GRADE.

THE PROJECT ALSO INCLUDES NEW STORM DRAIN FEATURES AND FRONTAGE IMPROVEMENTS. THERE WILL BE AN UNIMPROVED AREA THAT WILL NOT BE A PART OF THIS DEVELOPMENT APPLICATION.

FIRE DEPARTMENT NOTES

A. FIRE PROTECTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE CFC AND THE CALIFORNIA BUILDING CODE. AN APPROVED NFPA 14 FIRE SPRINKLER SYSTEM SHALL BE INCLUDED. DRAWINGS AND SPECIFICATIONS SHALL BE A DEFERRED SUBMITTAL.

B. FIRE MAIN AND ALL ASSOCIATED CONTROL VALVES SHALL BE INSTALLED PER NFPA 24 STANDARDS AND CITY ENGINEERING STANDARDS.

C. FIRE SAFETY DURING CONSTRUCTION: BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH CHAPTER 34 OF THE CFC.

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A01	PROJECT INFORMATION & STATISTICS
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A11	PROPOSED SITE PLAN
A12	PROPOSED TRUCK TURNING PLAN
A13	PROPOSED LANDSCAPE CONCEPT
A14	PROPOSED SITE DETAILS & PLANTING IMAGES
A20	PROPOSED FLOOR PLAN
A30	CONCEPTUAL PERSPECTIVE
A31	CONCEPTUAL PERSPECTIVE
A40	EXTERIOR ELEVATIONS
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CIVIL

C-1.1	GRADING, DRAINAGE AND UTILITY PLAN
C-1.2	GRADING, DRAINAGE AND UTILITY PLAN
C-1.3	PUBLIC IMPROVEMENT PLAN

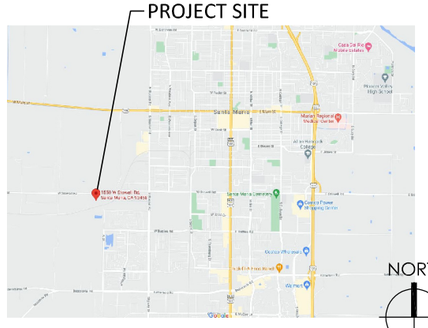
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VICINITY MAP



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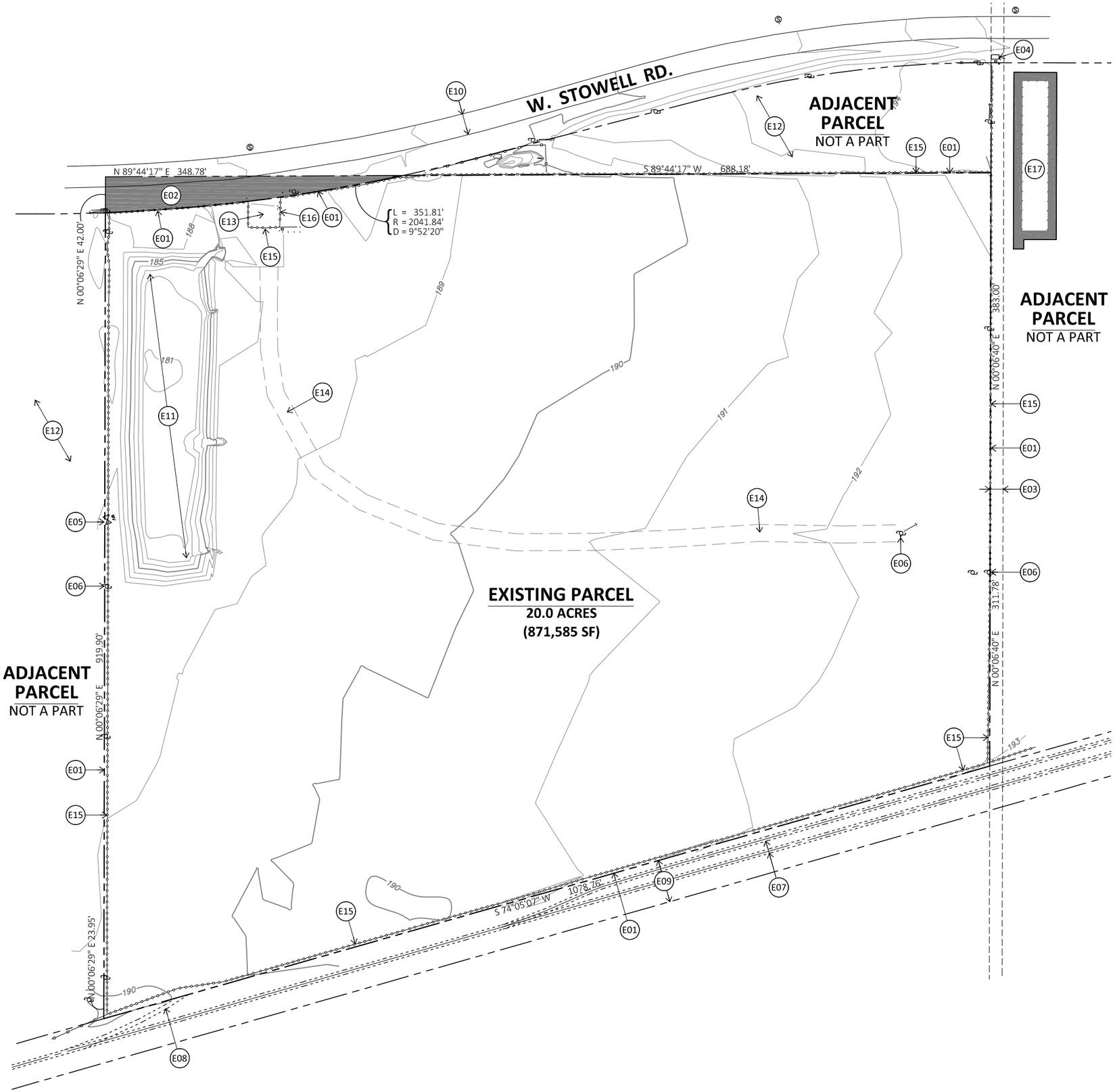
PROJECT INFORMATION & STATISTICS

DATE
MAY 10, 2022

ARRIS PROJECT #
A21055

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PD2021-0006

SHEET #
A01



REFERENCE NOTES

E01. PROPERTY LINE
E02. AREA OF DEDICATION
E03. EXISTING EASEMENT FOR UNDERGROUND STORM DRAIN LINE PER INST. #43909 IN BOOK 2074, PAGE 459
E04. EXISTING STORM DRAIN INLET, NOT A PART
E05. EXISTING UTILITY BOX
E06. EXISTING OVERHEAD UTILITY POLE
E07. EXISTING ACTIVE RAILROAD TRACKS
E08. EXISTING ABANDONED RAILROAD TRACKS
E09. SANTA MARIA VALLEY RAILROAD, APN 117-110-007
E10. EXISTING EDGE OF PAVING
E11. EXISTING STORM BASIN
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E15. EXISTING 6' HIGH CHAINLINK FENCE WITH BARBER WIRE TOP, TYP.
E16. EXISTING GATE IN CHAINLINK FENCE
E17. EXISTING BUILDING ON ADJACENT PROPERTY

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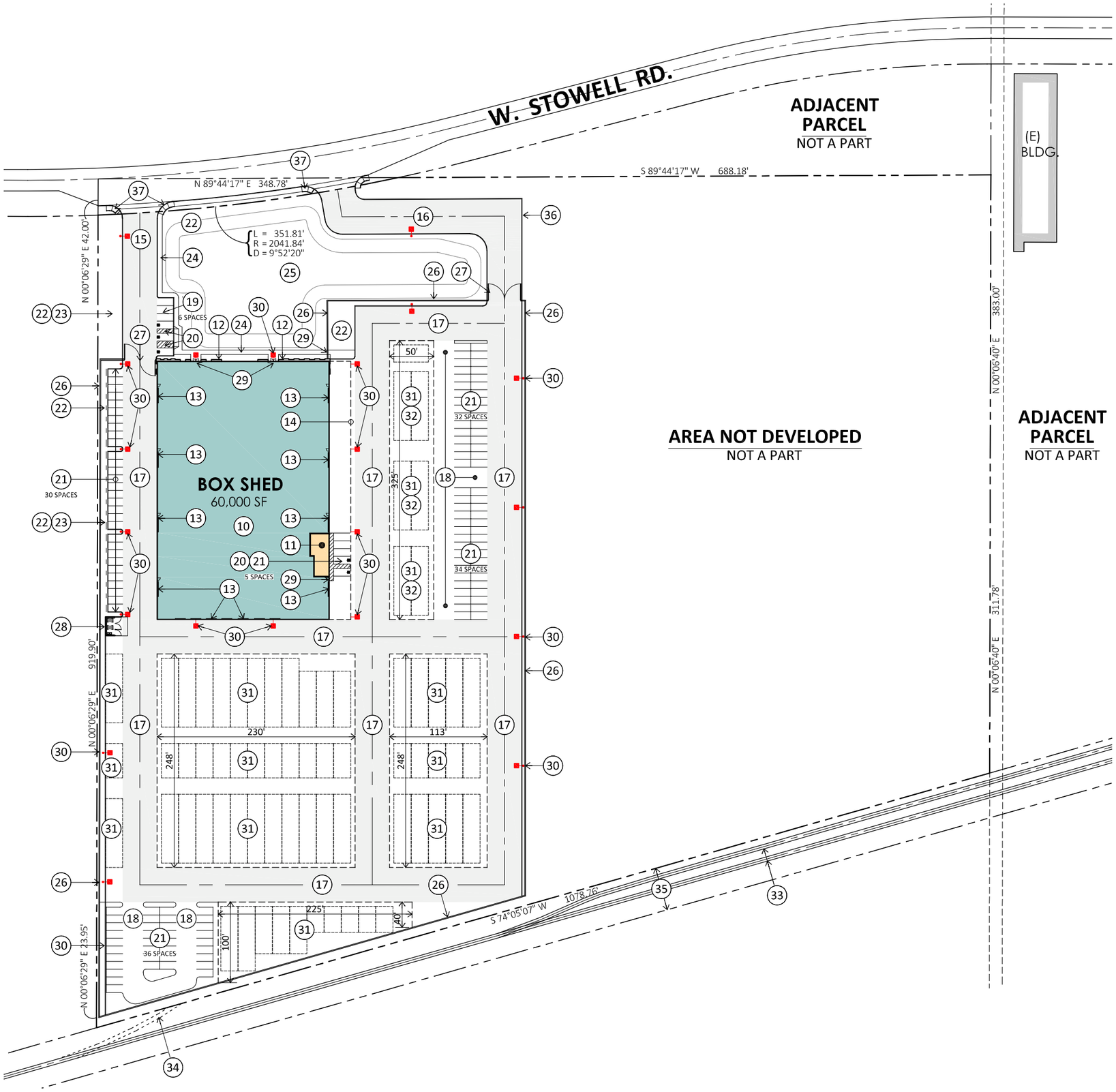
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MAXCO PACKAGING FACILITY
PLANNED DEVELOPMENT PERMIT PACKAGE
1550 WEST STOWELL ROAD SANTA MARIA, CA

EXISTING SITE PLAN

PROJECT NORTH: TRUE NORTH:
0 15 30 60 120
1.1x17 SHEET SCALE: 1" = 120'-0"
24x36 SHEET SCALE: 1" = 60'-0"

DATE
MAY 10, 2022
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A21055
CITY APPLICATION #
PD2021-0006
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A10



REFERENCE NOTES

10. PROPOSED BUILDING, SEE FLOOR PLAN
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12. ARCHITECTURAL FACADE, SEE ELEVATIONS
13. DOCK DOORS, SEE FLOOR PLAN
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15. MAIN SITE ENTRANCE
16. SHARED SITE ENTRANCE
17. 40' WIDE DRIVE AISLE
18. 24' WIDE DRIVE AISLE
19. VISITOR PARKING (9'x19')
20. ACCESSIBLE PARKING SPACE (9'x19')
21. STANDARD PARKING (9' x 19')
22. LANDSCAPE AREA
23. 10'-0" WIDE LANDSCAPE BUFFER
24. CONCRETE WALK
25. DRAINAGE BASIN, SEE CIVIL PLANS
26. 8' TALL CHAIN LINK FENCE WITH PRIVACY SCREEN
27. SWING GATE
28. TRASH ENCLOSURE, TO COMPLY WITH CITY STANDARD DETAIL MS-16B. PER WAREHOUSE REQUIREMENTS, THIS ENCLOSURE WILL INCLUDE:
    - (1) 4-CUBIC YARD TRASH
    - (1) 4-CUBIC YARD RECYCLE
    - (2) 60-GALLON ORGANICS CONTAINERS
29. PEDESTRIAN ENTRANCE
30. SITE LIGHTING - SEE SHEET A 1.4
    - PARKING & DRIVE AISLE LIGHTING TO BE MOUNTED ON 25' TALL POLE
    - WALL MOUNTED LIGHTING TO BE SET AT 20' A.F.S.
    - ALL LIGHTING TO BE DARK SKY COMPLIANT.
31. EXTERIOR MATERIAL STORAGE INCLUDING:
    - PALLETS OF CORRUGATED MATERIAL FOR BOXES
    - MISCELLANEOUS MATERIALS
    - PALLETS OF COMPLETED BOXES FOR DISTRIBUTION
32. EXTERIOR MATERIAL STORAGE SHALL NOT EXCEED FENCE LINE IN THIS AREA.
33. EXISTING RAILROAD TRACKS
34. ABANDONED RAILROAD TRACKS, CUT OFF AT FENCE.
35. SANTA MARIA VALLEY RAILROAD, APN 117-110-007
36. FUTURE ACCESS TO VACANT PORTION OF SITE
37. PUBLIC STREET IMPROVEMENTS, SEE CIVIL PLANS

Arris STUDIO ARCHITECTS

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CONSULTANT

A PROJECT FOR:

MAXCO PACKAGING

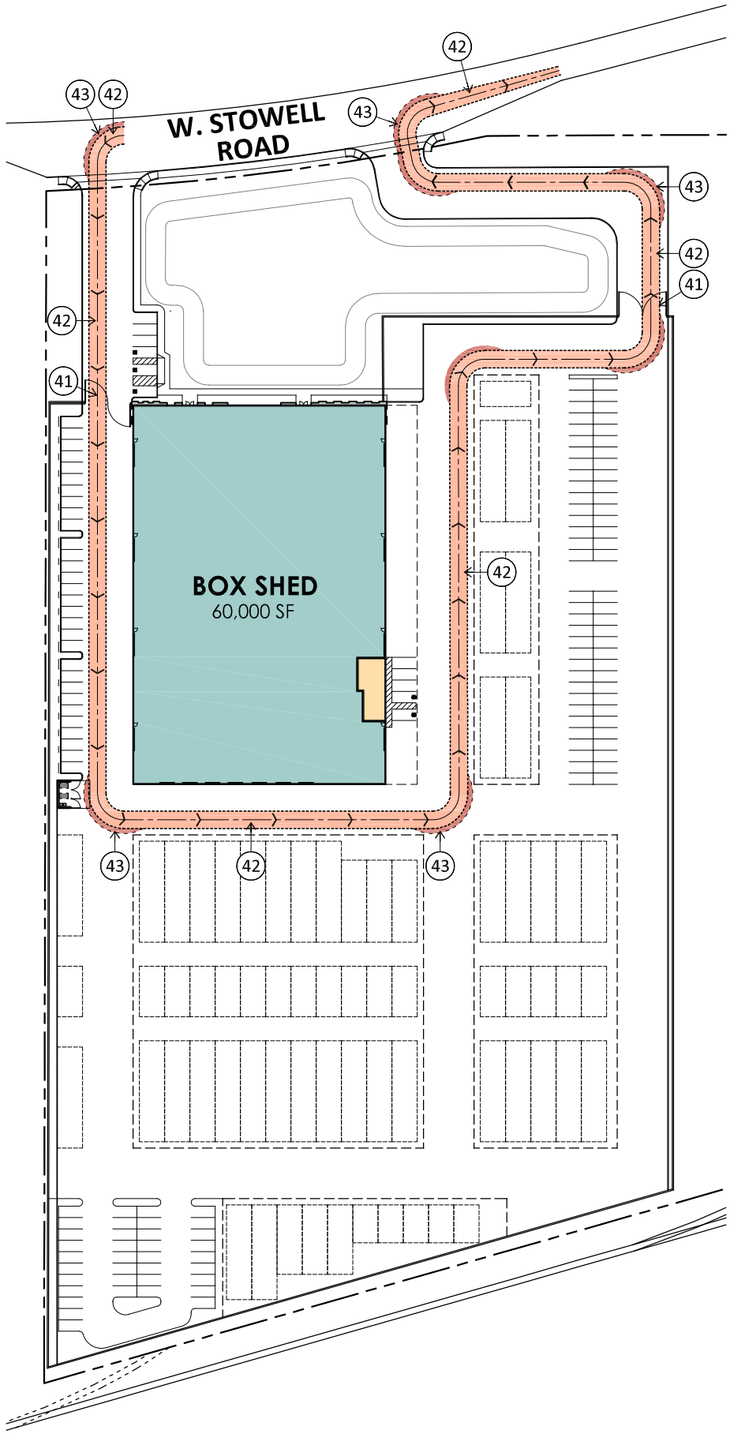
605 S. ZEDIKER
PARLIER, CA 93648

MAXCO PACKAGING FACILITY
PLANNED DEVELOPMENT PERMIT PACKAGE
1550 WEST STOWELL ROAD SANTA MARIA, CA

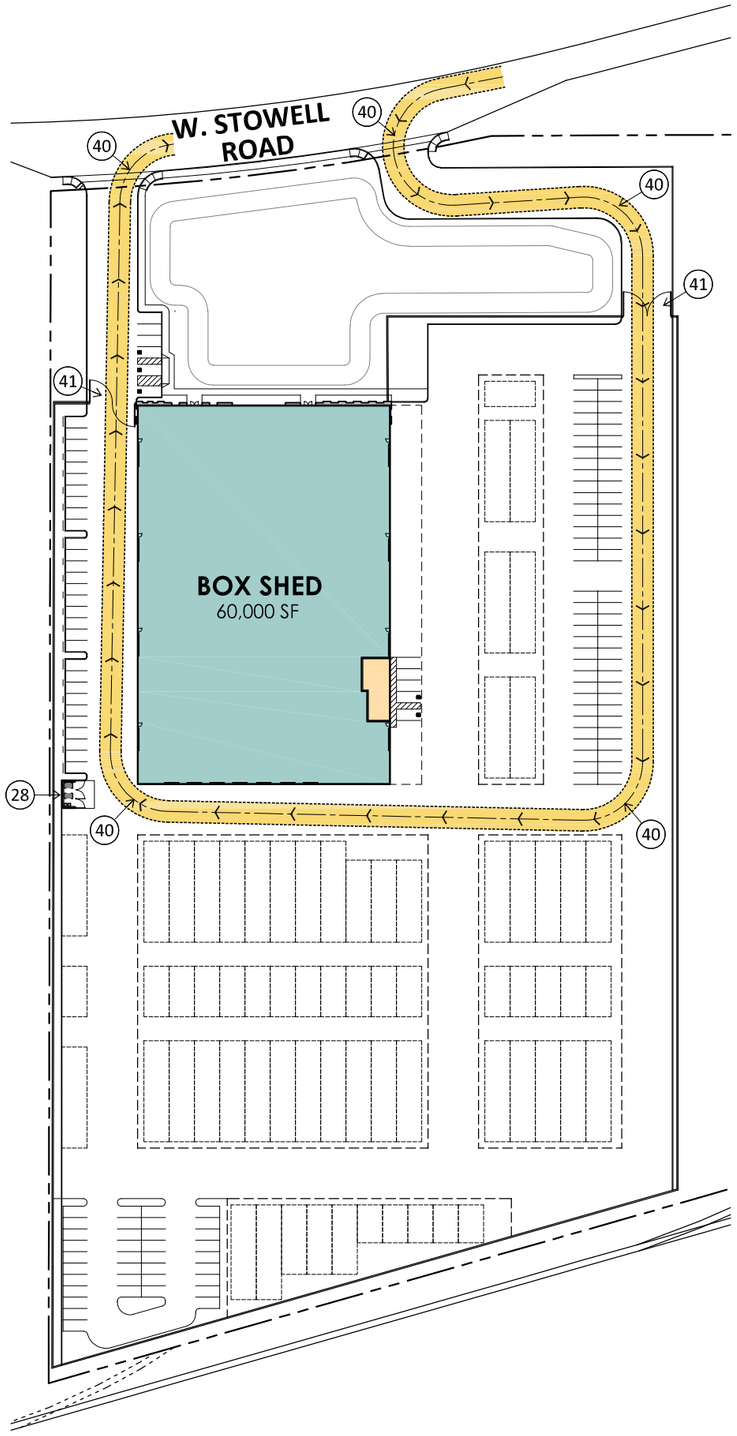
TRUE NORTH
PROJECT NORTH
1"x17" SHEET SCALE: 1" = 120'-0"
24"x36" SHEET SCALE: 1" = 60'-0"

PROPOSED SITE PLAN

DATE
MAY 10, 2022
ARRIS PROJECT #
A21055
CITY APPLICATION #
PD2021-0006
SHEET #
A11



PATH OF FIRE TRUCK



PATH OF TRASH TRUCK

TRUCK TURNING NOTES

28. TRASH ENCLOSURE, TO COMPLY w/CITY STANDARD DETAIL MS-16B.
40. TRASH TRUCK PATH
    - INSIDE TURNING RADIUS = 38'-0"
    - OUTSIDE TURNING RADIUS = 55'-0"
    - DRIVE PATH SHALL BE DESIGNED TO WITHSTAND TRUCK LOADS IMPOSED BY CITY
41. GATE SHALL BE EQUIPPED WITH CODED ELECTRONIC KEYPAD SYSTEM
42. FIRE TRUCK PATH
    - INSIDE TURNING RADIUS = 14'-1"
    - CURB TO CURB RADIUS = 27'-10"
43. FIRE TRUCK OVERHANG
    - WALL TO WALL RADIUS = 31'-10"

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MAXCO PACKAGING FACILITY
PLANNED DEVELOPMENT PERMIT PACKAGE
1550 WEST STOWELL ROAD SANTA MARIA, CA

PROJECT NORTH
TRUE NORTH
11x17 SHEET SCALE: 1" = 120'-0"
24x36 SHEET SCALE: 1" = 60'-0"

TRUCK ROUTE SITE PLAN

DATE
MAY 10, 2022

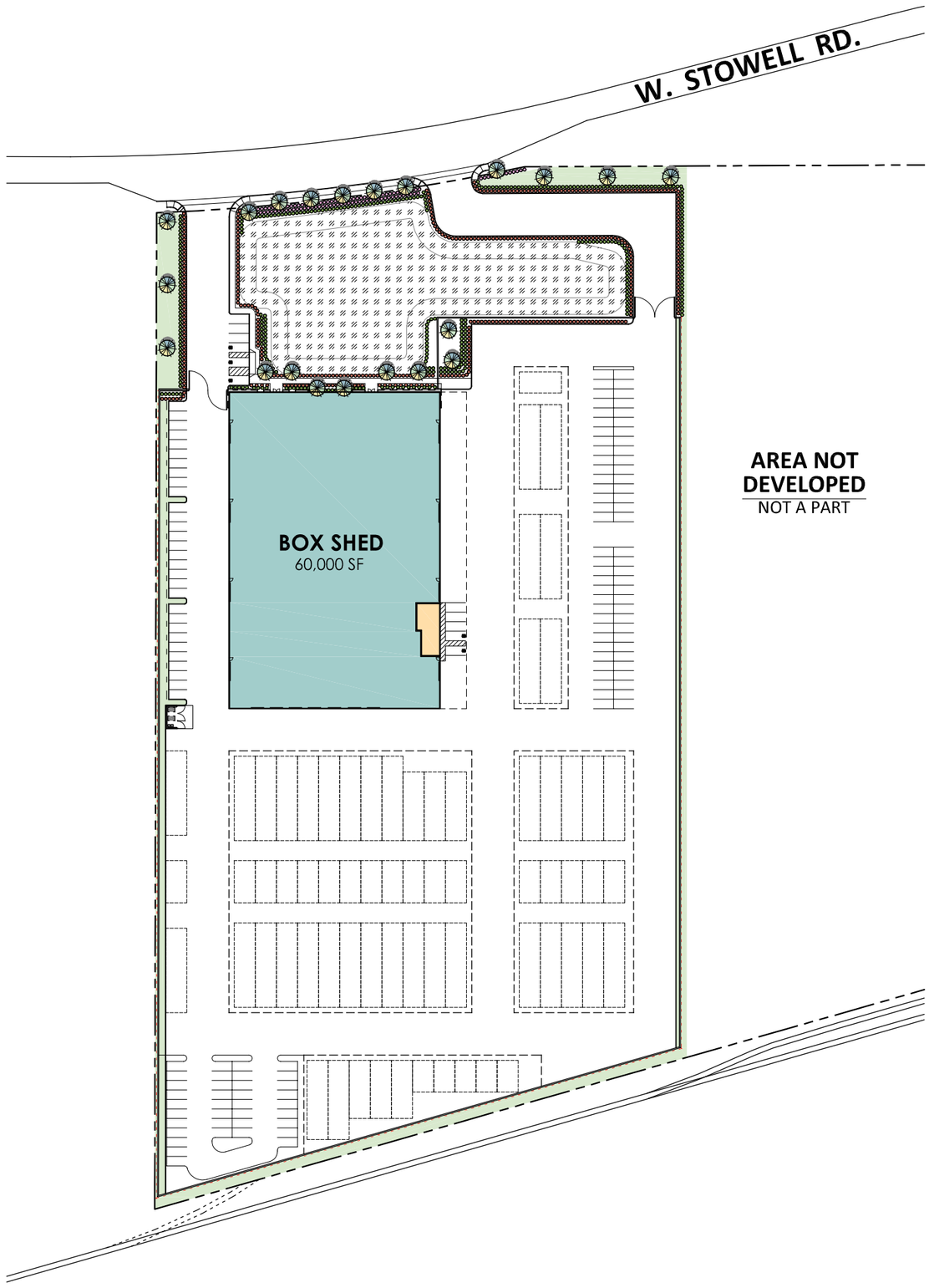
ARRIS PROJECT #
A21055

CITY APPLICATION #
PD2021-0006

SHEET #
A12

LANDSCAPE NOTES

1. WATER CONSERVING PLANTS, DEFINED AS "LOW" IN THE "WATER USE CLASSIFICATION OF LANDSCAPE SPECIES" (WUCOLS IV, UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION), SHALL BE UTILIZED THROUGHOUT THE TOTAL PLANT AREA.
2. IRRIGATION SYSTEM SHALL BE SEPARATED INTO DISTINCT HYDROZONES BASED ON PLANT MATERIAL TYPES, EXPOSURE AND ORIENTATION.
3. SOIL AMENDMENTS AND MULCH SHALL BE UTILIZED TO IMPROVE WATER HOLDING CAPACITY OF SOIL.
4. LAWN IS NOT USED. MULCH ALL GROUND COVER & PLANTER AREAS WITH 3" MINIMUM LAYER DECORATIVE COBBLES, CRUSHED ROCK OR 'WALK-ON' BARK.
5. LANDSCAPE DESIGN SHALL CONFORM WITH THE CITY OF SANTA MARIA "LANDSCAPE AND IRRIGATION DESIGN MANUAL."
6. LID FACILITIES SHALL BE LANDSCAPED AND CONSTRUCTED IN ACCORDANCE WITH CASQA-LIDI DETAILS AND SPECS AND RECOMMENDED PLANT MATERIAL.
7. LINEAL MASSES OF SHRUBS - THIS METHOD REQUIRES USE OF SHRUBS THAT WILL ACHIEVE A HEIGHT OF 4 TO 6 FEET WITHIN 3 YEARS. MINIMUM SIZE OF FIFTEEN (15) GALLONS IS REQUIRED.
8. EIGHT MEDIUM TREES WILL BE REQUIRED ON WEST STOWELL RD. SELECT TREES FROM THE APPROVED CITY STREET TREE LIST OR SIMILAR. THE STREET TREES SHALL BE 24 INCH BOX IN SIZE AND HAVE A MINIMUM CALIPER OF 1.5 INCHES. THE TREES SHALL BE PLANTED SIX FEET BEHIND THE SIDEWALK BY A CONTRACTOR IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS OF THE RECREATION AND PARKS DEPARTMENT. AN IRRIGATION SYSTEM SHALL BE PROVIDED FOR THE TREES.
9. THE WEST STOWELL SPECIFIC PLAN REQUIRES SCREENING OF AREAS UTILIZED FOR PARKING, STORAGE, OR LOADING WHEN LOCATED IN THE FRONT YARD FROM VIEW OF ACCESS STREETS OR ADJACENT PROPERTIES. METHOD: LINEAL MASSES OF SHRUBS - THIS METHOD REQUIRES USE OF SHRUBS THAT WILL ACHIEVE A HEIGHT OF 4 TO 6 FEET WITHIN 3 YEARS. MINIMUM SIZE OF FIFTEEN (15) GALLONS REQUIRED



LANDSCAPE LEGEND

THE TREES AND SHRUBS DISPLAYED ON THIS PLAN ARE FOR REFERENCE ONLY. THE INTENT IS TO ENSURE THE LANDSCAPE ARCHITECT INCLUDES TREES AND SHRUBS THAT MEET THE REQUIREMENT FROM THE CITY OF SANTA MARIA ZONING REQUIREMENTS. AND SHALL COMPY WITH THE WEST STOWELL SPECIFIC PLAN APPROVED DROUGHT

TREE:
15-GALLON MIN IN SIZE

FRUITLESS OLIVE
(*olea europaea - fruitless)*

SHRUBS
1-GALLON MIN. IN SIZE

CREAM DE MINT DWARF PITTOSPORUN
(*pittosporum tobira 'shima')*

BETTER JOHN BOTTLE BRUSH
(*callistemon 'Better John')*

SUNSET GOLD BREATH OF HEAVEN
(*coleonema 'Sunset Gold')*

VINES
1-GALLON MIN. IN SIZE

CREEPING FIG
(*fixus pumila)*

GROUNDCOVER

CREEPING MYOPORUM
(*myoporum parvifolium 'Putah Creek')*

BEARBERRY COTONEASTER
(*cotoneaster damerii 'Low Fast')*

H. CARPET ROSEMARY
(*rosmarinus officinalis 'Huntington Carpet')*

DRAINAGE BASIN
LID FACILITIES SHALL BE LANDSCAPED AND CONSTRUCTED IN ACCORDANCE WITH CASQA-LIDI DETAILS AND SPECS AND RECOMMENDED PLANT MATERIAL

CITY OF SANTA MARIA
LANDSCAPE CALCULATIONS

PERCENTAGE OF LANDSCAPE

LANDSCAPE AREA REQUIRED	15%
SITE AREA (PHASE 1 ONLY)	442,582 SF
LANDSCAPE AREA	83,438 SF
ENHANCED PAVING	0 SF
LANDSCAPE AREA PERCENTAGE	18.9%

SITE TREE REQUIREMENTS

CITY REQUIREMENT	PARKING PROVIDED	TREES REQUIRED	TREES PROVIDED
1 TREE/6 PARKING STALLS	123 SPACES	21 TREES	21 TREES

WATER USAGE CALCULATION

	ETo	FACTOR (CF)	ETAF	AREA
LANDSCAPE AREA (LA)	47.4	0.62	0.7	83,438 SF
SPECIAL LANDSCAPE AREA (SLA)	NOT USED		0.3	0 SF

MAX APPLIED WATER ALLOWANCE
= (ETo - EPPT)(CF)[(ETAF)(LA) + (ETAF(SLA)]
= (47.4 - 0.1)(0.62)[(0.7)(83,438)+(0.3)(0)]
= 1,712,841 GAL/YEAR ALLOWED

HYDROZONE	IRRIGATION METHOD	AREA (HA)	% OF TOTAL LANDSCAPE AREA
SITE	D(DRIP)	83,438 SF	100%

ESTIMATED TOTAL WATER USAGE
= (ETo)(CF)[(PF x HA)/LA + SLA]
= (47.4)(0.62) [(0.3 x 83,438)/.71 + 0]
= 1,036,088 GAL/YEAR ESTIMATED

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PARLIER, CA 93648

MAXCO PACKAGING FACILITY
PLANNED DEVELOPMENT PERMIT PACKAGE
1550 WEST STOWELL ROAD SANTA MARIA, CA

TRUE NORTH
PROJECT NORTH
1"=30' 15' 0 30' 60' 120'
11x17 SHEET SCALE: 1" = 120'-0"
24x36 SHEET SCALE: 1" = 60'-0"

PROPOSED LANDSCAPE CONCEPT

DATE
MAY 10, 2022
ARRIS PROJECT #
A21055
CITY APPLICATION #
PD2021-0006
SHEET #
A13

Appendix B

California Emissions Estimator Model Outputs

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

21-12283 1550 West Stowell Road AQ Analysis

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.02	1000sqft	0.00	62,019.00	0
Other Asphalt Surfaces	359.14	1000sqft	8.24	359,144.00	0
Other Non-Asphalt Surfaces	83.44	1000sqft	1.92	83,438.00	0
Parking Lot	128.00	Space	0.00	51,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is located in Santa Maria, which is in Santa Barbara County. PG&E assumed to be utility provider

Land Use - Box shed warehouse would be approx 60,000 square feet with 2,019 square feet of office. 128 spaces in a parking lot. 83,438 sf of landscape area and 359,144 sf of paved area. 10.16 total acres

Construction Phase - Construction schedule provided by project applicant. Construction would occur six days per week. There is no demolition since the site is vacant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Trips and VMT -

Demolition -

Grading - 9,300 cy of soil would be cut with 17,600 cy of soil needed for fill. The project would require 8,300 cy of imported soil

Architectural Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Vehicle Trips - Box Shed Warehouse would have 35 daily trips for employes. 35 trips/62.019 ksf = 0.62 trips per ksf. There would be no new truck trips because trips are existing. Employee trips would be 100% primary and 100% C-W trips

Area Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Water And Wastewater - Water usage for outdoor based on water usage calcualtion. Amount would be 1,036,088 gals/year. Indoor water use assumed only for office space area, which is 2.019 ksf. Using rate of 177,735 gal/size/yaer the indoor water usage woudl be 358,847 gals/year

Solid Waste -

Construction Off-road Equipment Mitigation - SBCAPCD Standard Dust Control Measures. Watering at least twice a day and reduce vehicle speed to 15 mph

Area Mitigation -

Fleet Mix - Employee trips were assumed to be LDA, LDT1, and LDT2.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintParkingValue	100	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	30.00	29.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	300.00	71.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFleetMix	HHD	6.1110e-003	0.00
tblFleetMix	LDA	0.49	0.65
tblFleetMix	LDT1	0.05	0.07
tblFleetMix	LDT2	0.21	0.28
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.3150e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.00
tblFleetMix	MH	4.5080e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.8900e-004	0.00
tblFleetMix	SBUS	3.5530e-003	0.00
tblFleetMix	UBUS	6.0700e-004	0.00
tblGrading	MaterialImported	0.00	8,300.00
tblLandUse	LandUseSquareFeet	62,020.00	62,019.00
tblLandUse	LandUseSquareFeet	359,140.00	359,144.00
tblLandUse	LandUseSquareFeet	83,440.00	83,438.00
tblLandUse	LotAcreage	1.42	0.00
tblLandUse	LotAcreage	1.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.62
tblVehicleTrips	SU_TR	1.74	0.62
tblVehicleTrips	WD_TR	1.74	0.62
tblWater	IndoorWaterUseRate	14,342,125.00	358,847.00
tblWater	OutdoorWaterUseRate	0.00	1,036,088.00

2.0 Emissions Summary

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5539	1.7255	1.5736	3.8400e-003	0.2141	0.0737	0.2878	0.0796	0.0693	0.1489	0.0000	347.1949	347.1949	0.0580	0.0159	353.3909
Maximum	**0.5539**	**1.7255**	**1.5736**	**3.8400e-003**	**0.2141**	**0.0737**	**0.2878**	**0.0796**	**0.0693**	**0.1489**	**0.0000**	**347.1949**	**347.1949**	**0.0580**	**0.0159**	**353.3909**

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	0.5539	1.7255	1.5736	3.8400e-003	0.1429	0.0737	0.2166	0.0485	0.0693	0.1178	0.0000	347.1947	347.1947	0.0580	0.0159	353.3906
Maximum	**0.5539**	**1.7255**	**1.5736**	**3.8400e-003**	**0.1429**	**0.0737**	**0.2166**	**0.0485**	**0.0693**	**0.1178**	**0.0000**	**347.1947**	**347.1947**	**0.0580**	**0.0159**	**353.3906**

	ROG	NOx	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**	**33.24**	**0.00**	**24.73**	**39.09**	**0.00**	**20.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2022	8-31-2022	1.3925	1.3925
2	9-1-2022	9-30-2022	0.3392	0.3392
		Highest	1.3925	1.3925

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	0.3103	5.0000e-005	5.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0121
Energy	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	33.1268	33.1268	3.7400e-003	6.4000e-004	33.4094
Mobile	0.0117	0.0119	0.1220	2.9000e-004	0.0343	1.8000e-004	0.0345	9.1100e-003	1.7000e-004	9.2800e-003	0.0000	26.4313	26.4313	1.3000e-003	1.0500e-003	26.7762
Waste						0.0000	0.0000		0.0000	0.0000	12.1068	0.0000	12.1068	0.6003	0.0000	27.1152
Water						0.0000	0.0000		0.0000	0.0000	0.1270	0.5152	0.6421	5.2000e-004	2.9000e-004	0.7404
Total	**0.3231**	**0.0225**	**0.1366**	**3.5000e-004**	**0.0343**	**9.9000e-004**	**0.0353**	**9.1100e-003**	**9.8000e-004**	**0.0101**	**12.2337**	**60.0846**	**72.3183**	**0.6059**	**1.9800e-003**	**88.0533**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3103	5.0000e-005	5.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0121
Energy	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	33.1268	33.1268	3.7400e-003	6.4000e-004	33.4094
Mobile	0.0117	0.0119	0.1220	2.9000e-004	0.0343	1.8000e-004	0.0345	9.1100e-003	1.7000e-004	9.2800e-003	0.0000	26.4313	26.4313	1.3000e-003	1.0500e-003	26.7762
Waste						0.0000	0.0000		0.0000	0.0000	12.1068	0.0000	12.1068	0.6003	0.0000	27.1152
Water						0.0000	0.0000		0.0000	0.0000	0.1270	0.5152	0.6421	5.2000e-004	2.9000e-004	0.7404
Total	**0.3231**	**0.0225**	**0.1366**	**3.5000e-004**	**0.0343**	**9.9000e-004**	**0.0353**	**9.1100e-003**	**9.8000e-004**	**0.0101**	**12.2337**	**60.0846**	**72.3183**	**0.6059**	**1.9800e-003**	**88.0533**

	ROG	NOx	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	Site Preparation	Site Preparation	6/1/2022	6/3/2022	6	3	
2	Grading	Grading	6/6/2022	7/8/2022	6	29	
3	Building Construction	Building Construction	7/11/2022	9/30/2022	6	71	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	10/3/2022	10/21/2022	6	17	
5	Architectural Coating	Architectural Coating	10/3/2022	10/14/2022	6	11	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 58

Acres of Paving: 10.16

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 93,029; Non-Residential Outdoor: 31,010; Striped Parking Area: 29,627 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Plate Compactors	1	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Excavators	0	8.00	158	0.38
Grading	Forklifts	1	8.00	89	0.20
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Tractors	1	8.00	124	0.44
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36

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Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	8.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	1	8.00	89	0.20

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	1,038.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	233.00	91.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	47.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					0.0106	0.0000	0.0106	5.1400e-003	0.0000	5.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0342	0.0258	5.0000e-005		1.5400e-003	1.5400e-003		1.4400e-003	1.4400e-003	0.0000	4.4760	4.4760	1.1900e-003	0.0000	4.5056
Total	**3.3400e-003**	**0.0342**	**0.0258**	**5.0000e-005**	**0.0106**	**1.5400e-003**	**0.0122**	**5.1400e-003**	**1.4400e-003**	**6.5800e-003**	**0.0000**	**4.4760**	**4.4760**	**1.1900e-003**	**0.0000**	**4.5056**

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3.2 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	8.0000e-005	6.0000e-005	6.4000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1465	0.1465	1.0000e-005	1.0000e-005	0.1482
Total	**8.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1465**	**0.1465**	**1.0000e-005**	**1.0000e-005**	**0.1482**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7800e-003	0.0000	4.7800e-003	2.3100e-003	0.0000	2.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0342	0.0258	5.0000e-005		1.5400e-003	1.5400e-003		1.4400e-003	1.4400e-003	0.0000	4.4760	4.4760	1.1900e-003	0.0000	4.5056
Total	**3.3400e-003**	**0.0342**	**0.0258**	**5.0000e-005**	**4.7800e-003**	**1.5400e-003**	**6.3200e-003**	**2.3100e-003**	**1.4400e-003**	**3.7500e-003**	**0.0000**	**4.4760**	**4.4760**	**1.1900e-003**	**0.0000**	**4.5056**

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3.2 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	8.0000e-005	6.0000e-005	6.4000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1465	0.1465	1.0000e-005	1.0000e-005	0.1482
Total	**8.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1465**	**0.1465**	**1.0000e-005**	**1.0000e-005**	**0.1482**

3.3 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					0.1188	0.0000	0.1188	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0620	0.6265	0.4774	9.7000e-004		0.0292	0.0292		0.0272	0.0272	0.0000	84.5094	84.5094	0.0235	0.0000	85.0974
Total	**0.0620**	**0.6265**	**0.4774**	**9.7000e-004**	**0.1188**	**0.0292**	**0.1479**	**0.0514**	**0.0272**	**0.0786**	**0.0000**	**84.5094**	**84.5094**	**0.0235**	**0.0000**	**85.0974**

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3.3 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	2.3200e-003	0.1022	0.0234	3.3000e-004	8.8600e-003	8.6000e-004	9.7200e-003	2.4300e-003	8.2000e-004	3.2500e-003	0.0000	33.4924	33.4924	2.1600e-003	5.3600e-003	35.1437
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-003	1.0600e-003	0.0108	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4775	2.4775	1.0000e-004	9.0000e-005	2.5068
Total	**3.7200e-003**	**0.1033**	**0.0342**	**3.6000e-004**	**0.0120**	**8.8000e-004**	**0.0129**	**3.2600e-003**	**8.4000e-004**	**4.1000e-003**	**0.0000**	**35.9699**	**35.9699**	**2.2600e-003**	**5.4500e-003**	**37.6505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0534	0.0000	0.0534	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0620	0.6265	0.4774	9.7000e-004		0.0292	0.0292		0.0272	0.0272	0.0000	84.5093	84.5093	0.0235	0.0000	85.0973
Total	**0.0620**	**0.6265**	**0.4774**	**9.7000e-004**	**0.0534**	**0.0292**	**0.0826**	**0.0231**	**0.0272**	**0.0503**	**0.0000**	**84.5093**	**84.5093**	**0.0235**	**0.0000**	**85.0973**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 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	2.3200e-003	0.1022	0.0234	3.3000e-004	8.8600e-003	8.6000e-004	9.7200e-003	2.4300e-003	8.2000e-004	3.2500e-003	0.0000	33.4924	33.4924	2.1600e-003	5.3600e-003	35.1437
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-003	1.0600e-003	0.0108	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4775	2.4775	1.0000e-004	9.0000e-005	2.5068
Total	**3.7200e-003**	**0.1033**	**0.0342**	**3.6000e-004**	**0.0120**	**8.8000e-004**	**0.0129**	**3.2600e-003**	**8.4000e-004**	**4.1000e-003**	**0.0000**	**35.9699**	**35.9699**	**2.2600e-003**	**5.4500e-003**	**37.6505**

3.4 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	0.0739	0.6364	0.6515	1.1300e-003		0.0339	0.0339		0.0321	0.0321	0.0000	96.9153	96.9153	0.0210	0.0000	97.4394
Total	**0.0739**	**0.6364**	**0.6515**	**1.1300e-003**		**0.0339**	**0.0339**		**0.0321**	**0.0321**	**0.0000**	**96.9153**	**96.9153**	**0.0210**	**0.0000**	**97.4394**

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3.4 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	6.9000e-003	0.1876	0.0599	6.1000e-004	0.0188	1.7600e-003	0.0206	5.4300e-003	1.6900e-003	7.1100e-003	0.0000	60.7091	60.7091	2.4500e-003	8.9300e-003	63.4325
Worker	0.0229	0.0172	0.1757	4.4000e-004	0.0511	2.7000e-004	0.0514	0.0136	2.5000e-004	0.0138	0.0000	40.3793	40.3793	1.6800e-003	1.4600e-003	40.8565
Total	**0.0298**	**0.2048**	**0.2356**	**1.0500e-003**	**0.0699**	**2.0300e-003**	**0.0719**	**0.0190**	**1.9400e-003**	**0.0209**	**0.0000**	**101.0884**	**101.0884**	**4.1300e-003**	**0.0104**	**104.2890**

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	0.0739	0.6364	0.6515	1.1300e-003		0.0339	0.0339		0.0321	0.0321	0.0000	96.9151	96.9151	0.0210	0.0000	97.4393
Total	**0.0739**	**0.6364**	**0.6515**	**1.1300e-003**		**0.0339**	**0.0339**		**0.0321**	**0.0321**	**0.0000**	**96.9151**	**96.9151**	**0.0210**	**0.0000**	**97.4393**

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3.4 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	6.9000e-003	0.1876	0.0599	6.1000e-004	0.0188	1.7600e-003	0.0206	5.4300e-003	1.6900e-003	7.1100e-003	0.0000	60.7091	60.7091	2.4500e-003	8.9300e-003	63.4325
Worker	0.0229	0.0172	0.1757	4.4000e-004	0.0511	2.7000e-004	0.0514	0.0136	2.5000e-004	0.0138	0.0000	40.3793	40.3793	1.6800e-003	1.4600e-003	40.8565
Total	**0.0298**	**0.2048**	**0.2356**	**1.0500e-003**	**0.0699**	**2.0300e-003**	**0.0719**	**0.0190**	**1.9400e-003**	**0.0209**	**0.0000**	**101.0884**	**101.0884**	**4.1300e-003**	**0.0104**	**104.2890**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0111	0.1027	0.1172	2.2000e-004		5.2800e-003	5.2800e-003		4.9500e-003	4.9500e-003	0.0000	19.0436	19.0436	5.2600e-003	0.0000	19.1750
Paving	0.0108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0219**	**0.1027**	**0.1172**	**2.2000e-004**		**5.2800e-003**	**5.2800e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**19.0436**	**19.0436**	**5.2600e-003**	**0.0000**	**19.1750**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	4.7000e-004	3.5000e-004	3.6100e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8299	0.8299	3.0000e-005	3.0000e-005	0.8397
Total	**4.7000e-004**	**3.5000e-004**	**3.6100e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.8299**	**0.8299**	**3.0000e-005**	**3.0000e-005**	**0.8397**

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	0.0111	0.1027	0.1172	2.2000e-004		5.2800e-003	5.2800e-003		4.9500e-003	4.9500e-003	0.0000	19.0435	19.0435	5.2600e-003	0.0000	19.1750
Paving	0.0108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0219**	**0.1027**	**0.1172**	**2.2000e-004**		**5.2800e-003**	**5.2800e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**19.0435**	**19.0435**	**5.2600e-003**	**0.0000**	**19.1750**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	4.7000e-004	3.5000e-004	3.6100e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8299	0.8299	3.0000e-005	3.0000e-005	0.8397
Total	**4.7000e-004**	**3.5000e-004**	**3.6100e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.8299**	**0.8299**	**3.0000e-005**	**3.0000e-005**	**0.8397**

3.6 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	0.3561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9500e-003	0.0166	0.0223	3.0000e-005		8.9000e-004	8.9000e-004		8.6000e-004	8.6000e-004	0.0000	2.9543	2.9543	5.9000e-004	0.0000	2.9691
Total	**0.3581**	**0.0166**	**0.0223**	**3.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.6000e-004**	**8.6000e-004**	**0.0000**	**2.9543**	**2.9543**	**5.9000e-004**	**0.0000**	**2.9691**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 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	7.2000e-004	5.4000e-004	5.4900e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2619	1.2619	5.0000e-005	5.0000e-005	1.2768
Total	**7.2000e-004**	**5.4000e-004**	**5.4900e-003**	**1.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.2619**	**1.2619**	**5.0000e-005**	**5.0000e-005**	**1.2768**

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	0.3561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9500e-003	0.0166	0.0223	3.0000e-005		8.9000e-004	8.9000e-004		8.6000e-004	8.6000e-004	0.0000	2.9543	2.9543	5.9000e-004	0.0000	2.9691
Total	**0.3581**	**0.0166**	**0.0223**	**3.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.6000e-004**	**8.6000e-004**	**0.0000**	**2.9543**	**2.9543**	**5.9000e-004**	**0.0000**	**2.9691**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 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	7.2000e-004	5.4000e-004	5.4900e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2619	1.2619	5.0000e-005	5.0000e-005	1.2768
Total	**7.2000e-004**	**5.4000e-004**	**5.4900e-003**	**1.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.2619**	**1.2619**	**5.0000e-005**	**5.0000e-005**	**1.2768**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0117	0.0119	0.1220	2.9000e-004	0.0343	1.8000e-004	0.0345	9.1100e-003	1.7000e-004	9.2800e-003	0.0000	26.4313	26.4313	1.3000e-003	1.0500e-003	26.7762
Unmitigated	0.0117	0.0119	0.1220	2.9000e-004	0.0343	1.8000e-004	0.0345	9.1100e-003	1.7000e-004	9.2800e-003	0.0000	26.4313	26.4313	1.3000e-003	1.0500e-003	26.7762

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	38.45	38.45	38.45	92,378	92,378
Total	38.45	38.45	38.45	92,378	92,378

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
Other Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	6.60	5.50	6.40	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Other Non-Asphalt Surfaces	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Parking Lot	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Unrefrigerated Warehouse-No Rail	0.652009	0.069367	0.278626	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.7418	21.7418	3.5200e-003	4.3000e-004	21.9568
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.7418	21.7418	3.5200e-003	4.3000e-004	21.9568
NaturalGas Mitigated	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526
NaturalGas Unmitigated	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	213345	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526
Total		**1.1500e-003**	**0.0105**	**8.7800e-003**	**6.0000e-005**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**11.3849**	**11.3849**	**2.2000e-004**	**2.1000e-004**	**11.4526**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	213345	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526
Total		**1.1500e-003**	**0.0105**	**8.7800e-003**	**6.0000e-005**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**11.3849**	**11.3849**	**2.2000e-004**	**2.1000e-004**	**11.4526**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	17920	1.6580	2.7000e-004	3.0000e-005	1.6744
Unrefrigerated Warehouse-No Rail	217067	20.0838	3.2500e-003	3.9000e-004	20.2824
Total		**21.7418**	**3.5200e-003**	**4.2000e-004**	**21.9568**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	17920	1.6580	2.7000e-004	3.0000e-005	1.6744
Unrefrigerated Warehouse-No Rail	217067	20.0838	3.2500e-003	3.9000e-004	20.2824
Total		**21.7418**	**3.5200e-003**	**4.2000e-004**	**21.9568**

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 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	0.3103	5.0000e-005	5.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0121
Unmitigated	0.3103	5.0000e-005	5.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0121

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0356					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0121
Total	**0.3103**	**5.0000e-005**	**5.8200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0113**	**0.0113**	**3.0000e-005**	**0.0000**	**0.0121**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0356					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.8200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0121
Total	**0.3103**	**5.0000e-005**	**5.8200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0113**	**0.0113**	**3.0000e-005**	**0.0000**	**0.0121**

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6421	5.2000e-004	2.9000e-004	0.7404
Unmitigated	0.6421	5.2000e-004	2.9000e-004	0.7404

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.358847 / 1.03609	0.6421	5.2000e-004	2.9000e-004	0.7404
Total		**0.6421**	**5.2000e-004**	**2.9000e-004**	**0.7404**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.358847 / 1.03609	0.6421	5.2000e-004	2.9000e-004	0.7404
Total		**0.6421**	**5.2000e-004**	**2.9000e-004**	**0.7404**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.1068	0.6003	0.0000	27.1152
Unmitigated	12.1068	0.6003	0.0000	27.1152

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	58.3	12.1068	0.6003	0.0000	27.1152
Total		**12.1068**	**0.6003**	**0.0000**	**27.1152**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	58.3	12.1068	0.6003	0.0000	27.1152
Total		**12.1068**	**0.6003**	**0.0000**	**27.1152**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

11.0 Vegetation

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

21-12283 1550 West Stowell Road AQ Analysis

Santa Barbara County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.02	1000sqft	0.00	62,019.00	0
Other Asphalt Surfaces	359.14	1000sqft	8.24	359,144.00	0
Other Non-Asphalt Surfaces	83.44	1000sqft	1.92	83,438.00	0
Parking Lot	128.00	Space	0.00	51,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is located in Santa Maria, which is in Santa Barbara County. PG&E assumed to be utility provider

Land Use - Box shed warehouse would be approx 60,000 square feet with 2,019 square feet of office. 128 spaces in a parking lot. 83,438 sf of landscape area and 359,144 sf of paved area. 10.16 total acres

Construction Phase - Construction schedule provided by project applicant. Construction would occur six days per week. There is no demolition since the site is vacant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

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Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Trips and VMT -

Demolition -

Grading - 9,300 cy of soil would be cut with 17,600 cy of soil needed for fill. The project would require 8,300 cy of imported soil

Architectural Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Vehicle Trips - Box Shed Warehouse would have 35 daily trips for employes. 35 trips/62.019 ksf = 0.62 trips per ksf. There would be no new truck trips because trips are existing. Employee trips would be 100% primary and 100% C-W trips

Area Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Water And Wastewater - Water usage for outdoor based on water usage calcualtion. Amount would be 1,036,088 gals/year. Indoor water use assumed only for office space area, which is 2.019 ksf. Using rate of 177,735 gal/size/yaer the indoor water usage woudl be 358,847 gals/year

Solid Waste -

Construction Off-road Equipment Mitigation - SBCAPCD Standard Dust Control Measures. Watering at least twice a day and reduce vehicle speed to 15 mph

Area Mitigation -

Fleet Mix - Employee trips were assumed to be LDA, LDT1, and LDT2.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintParkingValue	100	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	30.00	29.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	300.00	71.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFleetMix	HHD	6.1110e-003	0.00
tblFleetMix	LDA	0.49	0.65
tblFleetMix	LDT1	0.05	0.07
tblFleetMix	LDT2	0.21	0.28
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.3150e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.00
tblFleetMix	MH	4.5080e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.8900e-004	0.00
tblFleetMix	SBUS	3.5530e-003	0.00
tblFleetMix	UBUS	6.0700e-004	0.00
tblGrading	MaterialImported	0.00	8,300.00
tblLandUse	LandUseSquareFeet	62,020.00	62,019.00
tblLandUse	LandUseSquareFeet	359,140.00	359,144.00
tblLandUse	LandUseSquareFeet	83,440.00	83,438.00
tblLandUse	LotAcreage	1.42	0.00
tblLandUse	LotAcreage	1.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.62
tblVehicleTrips	SU_TR	1.74	0.62
tblVehicleTrips	WD_TR	1.74	0.62
tblWater	IndoorWaterUseRate	14,342,125.00	358,847.00
tblWater	OutdoorWaterUseRate	0.00	1,036,088.00

2.0 Emissions Summary

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	67.8597	50.0756	35.2599	0.0913	9.0338	2.0705	11.1044	3.7755	1.9297	5.7052	0.0000	9,162.4027	9,162.4027	1.9601	0.4137	9,334.7004
Maximum	**67.8597**	**50.0756**	**35.2599**	**0.0913**	**9.0338**	**2.0705**	**11.1044**	**3.7755**	**1.9297**	**5.7052**	**0.0000**	**9,162.4027**	**9,162.4027**	**1.9601**	**0.4137**	**9,334.7004**

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	67.8597	50.0756	35.2599	0.0913	4.5296	2.0705	6.6002	1.8251	1.9297	3.7548	0.0000	9,162.4027	9,162.4027	1.9601	0.4137	9,334.7004
Maximum	**67.8597**	**50.0756**	**35.2599**	**0.0913**	**4.5296**	**2.0705**	**6.6002**	**1.8251**	**1.9297**	**3.7548**	**0.0000**	**9,162.4027**	**9,162.4027**	**1.9601**	**0.4137**	**9,334.7004**

	ROG	NOx	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**	**49.86**	**0.00**	**40.56**	**51.66**	**0.00**	**34.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Energy	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Mobile	0.0664	0.0591	0.6560	1.6100e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		163.4732	163.4732	7.3700e-003	5.9300e-003	165.4238
Total	**1.7759**	**0.1170**	**0.7688**	**1.9500e-003**	**0.1928**	**5.5900e-003**	**0.1984**	**0.0511**	**5.5100e-003**	**0.0566**		**232.3773**	**232.3773**	**9.0600e-003**	**7.1900e-003**	**234.7457**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Energy	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Mobile	0.0664	0.0591	0.6560	1.6100e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		163.4732	163.4732	7.3700e-003	5.9300e-003	165.4238
Total	**1.7759**	**0.1170**	**0.7688**	**1.9500e-003**	**0.1928**	**5.5900e-003**	**0.1984**	**0.0511**	**5.5100e-003**	**0.0566**		**232.3773**	**232.3773**	**9.0600e-003**	**7.1900e-003**	**234.7457**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	Site Preparation	Site Preparation	6/1/2022	6/3/2022	6	3	
2	Grading	Grading	6/6/2022	7/8/2022	6	29	
3	Building Construction	Building Construction	7/11/2022	9/30/2022	6	71	
4	Paving	Paving	10/3/2022	10/21/2022	6	17	
5	Architectural Coating	Architectural Coating	10/3/2022	10/14/2022	6	11	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 58

Acres of Paving: 10.16

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 93,029; Non-Residential Outdoor: 31,010; Striped Parking Area: 29,627 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Plate Compactors	1	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Excavators	0	8.00	158	0.38
Grading	Forklifts	1	8.00	89	0.20
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Tractors	1	8.00	124	0.44
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	8.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	1	8.00	89	0.20

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	1,038.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	233.00	91.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	47.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.2275	22.8236	17.1720	0.0344		1.0248	1.0248		0.9567	0.9567		3,289.2617	3,289.2617	0.8712		3,311.0411
Total	**2.2275**	**22.8236**	**17.1720**	**0.0344**	**7.0826**	**1.0248**	**8.1074**	**3.4247**	**0.9567**	**4.3815**		**3,289.2617**	**3,289.2617**	**0.8712**		**3,311.0411**

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	0.0546	0.0373	0.4197	1.0800e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		109.7548	109.7548	4.2100e-003	3.6200e-003	110.9396
Total	**0.0546**	**0.0373**	**0.4197**	**1.0800e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**109.7548**	**109.7548**	**4.2100e-003**	**3.6200e-003**	**110.9396**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.2275	22.8236	17.1720	0.0344		1.0248	1.0248		0.9567	0.9567	0.0000	3,289.2617	3,289.2617	0.8712		3,311.0411
Total	**2.2275**	**22.8236**	**17.1720**	**0.0344**	**3.1872**	**1.0248**	**4.2119**	**1.5411**	**0.9567**	**2.4978**	**0.0000**	**3,289.2617**	**3,289.2617**	**0.8712**		**3,311.0411**

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	0.0546	0.0373	0.4197	1.0800e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		109.7548	109.7548	4.2100e-003	3.6200e-003	110.9396
Total	**0.0546**	**0.0373**	**0.4197**	**1.0800e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**109.7548**	**109.7548**	**4.2100e-003**	**3.6200e-003**	**110.9396**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 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					8.1894	0.0000	8.1894	3.5463	0.0000	3.5463			0.0000			0.0000
Off-Road	4.2746	43.2078	32.9207	0.0668		2.0104	2.0104		1.8723	1.8723		6,424.5265	6,424.5265	1.7882		6,469.2327
Total	**4.2746**	**43.2078**	**32.9207**	**0.0668**	**8.1894**	**2.0104**	**10.1999**	**3.5463**	**1.8723**	**5.4185**		**6,424.5265**	**6,424.5265**	**1.7882**		**6,469.2327**

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	0.1617	6.8024	1.6046	0.0226	0.6233	0.0590	0.6823	0.1706	0.0564	0.2270		2,545.8053	2,545.8053	0.1645	0.4074	2,671.3234
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	0.0955	0.0654	0.7345	1.8900e-003	0.2210	1.1500e-003	0.2222	0.0586	1.0600e-003	0.0597		192.0708	192.0708	7.3600e-003	6.3400e-003	194.1444
Total	**0.2572**	**6.8677**	**2.3392**	**0.0245**	**0.8444**	**0.0601**	**0.9045**	**0.2293**	**0.0575**	**0.2867**		**2,737.8761**	**2,737.8761**	**0.1718**	**0.4137**	**2,865.4678**

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 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					3.6853	0.0000	3.6853	1.5958	0.0000	1.5958			0.0000			0.0000
Off-Road	4.2746	43.2078	32.9207	0.0668		2.0104	2.0104		1.8723	1.8723	0.0000	6,424.5265	6,424.5265	1.7882		6,469.2327
Total	**4.2746**	**43.2078**	**32.9207**	**0.0668**	**3.6853**	**2.0104**	**5.6957**	**1.5958**	**1.8723**	**3.4681**	**0.0000**	**6,424.5265**	**6,424.5265**	**1.7882**		**6,469.2327**

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	0.1617	6.8024	1.6046	0.0226	0.6233	0.0590	0.6823	0.1706	0.0564	0.2270		2,545.8053	2,545.8053	0.1645	0.4074	2,671.3234
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	0.0955	0.0654	0.7345	1.8900e-003	0.2210	1.1500e-003	0.2222	0.0586	1.0600e-003	0.0597		192.0708	192.0708	7.3600e-003	6.3400e-003	194.1444
Total	**0.2572**	**6.8677**	**2.3392**	**0.0245**	**0.8444**	**0.0601**	**0.9045**	**0.2293**	**0.0575**	**0.2867**		**2,737.8761**	**2,737.8761**	**0.1718**	**0.4137**	**2,865.4678**

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 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	2.0806	17.9262	18.3514	0.0319		0.9546	0.9546		0.9050	0.9050		3,009.3176	3,009.3176	0.6511		3,025.5943
Total	**2.0806**	**17.9262**	**18.3514**	**0.0319**		**0.9546**	**0.9546**		**0.9050**	**0.9050**		**3,009.3176**	**3,009.3176**	**0.6511**		**3,025.5943**

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	0.1950	5.1076	1.6663	0.0173	0.5395	0.0496	0.5891	0.1553	0.0475	0.2027		1,884.7778	1,884.7778	0.0762	0.2771	1,969.2464
Worker	0.6360	0.4350	4.8899	0.0126	1.4715	7.6300e-003	1.4791	0.3904	7.0300e-003	0.3974		1,278.6430	1,278.6430	0.0490	0.0422	1,292.4467
Total	**0.8309**	**5.5426**	**6.5562**	**0.0298**	**2.0110**	**0.0573**	**2.0683**	**0.5457**	**0.0545**	**0.6002**		**3,163.4208**	**3,163.4208**	**0.1252**	**0.3193**	**3,261.6930**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 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	2.0806	17.9262	18.3514	0.0319		0.9546	0.9546		0.9050	0.9050	0.0000	3,009.3176	3,009.3176	0.6511		3,025.5943
Total	**2.0806**	**17.9262**	**18.3514**	**0.0319**		**0.9546**	**0.9546**		**0.9050**	**0.9050**	**0.0000**	**3,009.3176**	**3,009.3176**	**0.6511**		**3,025.5943**

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	0.1950	5.1076	1.6663	0.0173	0.5395	0.0496	0.5891	0.1553	0.0475	0.2027		1,884.7778	1,884.7778	0.0762	0.2771	1,969.2464
Worker	0.6360	0.4350	4.8899	0.0126	1.4715	7.6300e-003	1.4791	0.3904	7.0300e-003	0.3974		1,278.6430	1,278.6430	0.0490	0.0422	1,292.4467
Total	**0.8309**	**5.5426**	**6.5562**	**0.0298**	**2.0110**	**0.0573**	**2.0683**	**0.5457**	**0.0545**	**0.6002**		**3,163.4208**	**3,163.4208**	**0.1252**	**0.3193**	**3,261.6930**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3034	12.0805	13.7907	0.0259		0.6209	0.6209		0.5822	0.5822		2,469.6394	2,469.6394	0.6819		2,486.6872
Paving	1.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5733**	**12.0805**	**13.7907**	**0.0259**		**0.6209**	**0.6209**		**0.5822**	**0.5822**		**2,469.6394**	**2,469.6394**	**0.6819**		**2,486.6872**

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	0.0546	0.0373	0.4197	1.0800e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		109.7548	109.7548	4.2100e-003	3.6200e-003	110.9396
Total	**0.0546**	**0.0373**	**0.4197**	**1.0800e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**109.7548**	**109.7548**	**4.2100e-003**	**3.6200e-003**	**110.9396**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	1.3034	12.0805	13.7907	0.0259		0.6209	0.6209		0.5822	0.5822	0.0000	2,469.6394	2,469.6394	0.6819		2,486.6872
Paving	1.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5733**	**12.0805**	**13.7907**	**0.0259**		**0.6209**	**0.6209**		**0.5822**	**0.5822**	**0.0000**	**2,469.6394**	**2,469.6394**	**0.6819**		**2,486.6872**

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	0.0546	0.0373	0.4197	1.0800e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		109.7548	109.7548	4.2100e-003	3.6200e-003	110.9396
Total	**0.0546**	**0.0373**	**0.4197**	**1.0800e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**109.7548**	**109.7548**	**4.2100e-003**	**3.6200e-003**	**110.9396**

3.6 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	64.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3542	3.0237	4.0613	6.1800e-003		0.1620	0.1620		0.1556	0.1556		592.0987	592.0987	0.1188		595.0686
Total	**65.1035**	**3.0237**	**4.0613**	**6.1800e-003**		**0.1620**	**0.1620**		**0.1556**	**0.1556**		**592.0987**	**592.0987**	**0.1188**		**595.0686**

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	0.1283	0.0878	0.9864	2.5400e-003	0.2968	1.5400e-003	0.2984	0.0788	1.4200e-003	0.0802		257.9237	257.9237	9.8800e-003	8.5100e-003	260.7081
Total	**0.1283**	**0.0878**	**0.9864**	**2.5400e-003**	**0.2968**	**1.5400e-003**	**0.2984**	**0.0788**	**1.4200e-003**	**0.0802**		**257.9237**	**257.9237**	**9.8800e-003**	**8.5100e-003**	**260.7081**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 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	64.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3542	3.0237	4.0613	6.1800e-003		0.1620	0.1620		0.1556	0.1556	0.0000	592.0987	592.0987	0.1188		595.0686
Total	**65.1035**	**3.0237**	**4.0613**	**6.1800e-003**		**0.1620**	**0.1620**		**0.1556**	**0.1556**	**0.0000**	**592.0987**	**592.0987**	**0.1188**		**595.0686**

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	0.1283	0.0878	0.9864	2.5400e-003	0.2968	1.5400e-003	0.2984	0.0788	1.4200e-003	0.0802		257.9237	257.9237	9.8800e-003	8.5100e-003	260.7081
Total	**0.1283**	**0.0878**	**0.9864**	**2.5400e-003**	**0.2968**	**1.5400e-003**	**0.2984**	**0.0788**	**1.4200e-003**	**0.0802**		**257.9237**	**257.9237**	**9.8800e-003**	**8.5100e-003**	**260.7081**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0664	0.0591	0.6560	1.6100e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		163.4732	163.4732	7.3700e-003	5.9300e-003	165.4238
Unmitigated	0.0664	0.0591	0.6560	1.6100e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		163.4732	163.4732	7.3700e-003	5.9300e-003	165.4238

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	38.45	38.45	38.45	92,378	92,378
Total	38.45	38.45	38.45	92,378	92,378

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
Other Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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
Unrefrigerated Warehouse-No	6.60	5.50	6.40	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Other Non-Asphalt Surfaces	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Parking Lot	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Unrefrigerated Warehouse-No Rail	0.652009	0.069367	0.278626	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
NaturalGas Unmitigated	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	584.508	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Total		**6.3000e-003**	**0.0573**	**0.0481**	**3.4000e-004**		**4.3600e-003**	**4.3600e-003**		**4.3600e-003**	**4.3600e-003**		**68.7656**	**68.7656**	**1.3200e-003**	**1.2600e-003**	**69.1743**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.584508	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Total		**6.3000e-003**	**0.0573**	**0.0481**	**3.4000e-004**		**4.3600e-003**	**4.3600e-003**		**4.3600e-003**	**4.3600e-003**		**68.7656**	**68.7656**	**1.3200e-003**	**1.2600e-003**	**69.1743**

6.0 Area Detail

6.1 Mitigation Measures Area

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Unmitigated	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476

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	0.1951					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0200e-003	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Total	**1.7033**	**5.9000e-004**	**0.0647**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1385**	**0.1385**	**3.7000e-004**		**0.1476**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1951					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0200e-003	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Total	**1.7033**	**5.9000e-004**	**0.0647**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1385**	**0.1385**	**3.7000e-004**		**0.1476**

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 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

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

21-12283 1550 West Stowell Road AQ Analysis

Santa Barbara County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.02	1000sqft	0.00	62,019.00	0
Other Asphalt Surfaces	359.14	1000sqft	8.24	359,144.00	0
Other Non-Asphalt Surfaces	83.44	1000sqft	1.92	83,438.00	0
Parking Lot	128.00	Space	0.00	51,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is located in Santa Maria, which is in Santa Barbara County. PG&E assumed to be utility provider

Land Use - Box shed warehouse would be approx 60,000 square feet with 2,019 square feet of office. 128 spaces in a parking lot. 83,438 sf of landscape area and 359,144 sf of paved area. 10.16 total acres

Construction Phase - Construction schedule provided by project applicant. Construction would occur six days per week. There is no demolition since the site is vacant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Trips and VMT -

Demolition -

Grading - 9,300 cy of soil would be cut with 17,600 cy of soil needed for fill. The project would require 8,300 cy of imported soil

Architectural Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Vehicle Trips - Box Shed Warehouse would have 35 daily trips for employes. 35 trips/62.019 ksf = 0.62 trips per ksf. There would be no new truck trips because trips are existing. Employee trips would be 100% primary and 100% C-W trips

Area Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Water And Wastewater - Water usage for outdoor based on water usage calcualtion. Amount would be 1,036,088 gals/year. Indoor water use assumed only for office space area, which is 2.019 ksf. Using rate of 177,735 gal/size/yaer the indoor water usage woudl be 358,847 gals/year

Solid Waste -

Construction Off-road Equipment Mitigation - SBCAPCD Standard Dust Control Measures. Watering at least twice a day and reduce vehicle speed to 15 mph

Area Mitigation -

Fleet Mix - Employee trips were assumed to be LDA, LDT1, and LDT2.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintParkingValue	100	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	30.00	29.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	300.00	71.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFleetMix	HHD	6.1110e-003	0.00
tblFleetMix	LDA	0.49	0.65
tblFleetMix	LDT1	0.05	0.07
tblFleetMix	LDT2	0.21	0.28
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.3150e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.00
tblFleetMix	MH	4.5080e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.8900e-004	0.00
tblFleetMix	SBUS	3.5530e-003	0.00
tblFleetMix	UBUS	6.0700e-004	0.00
tblGrading	MaterialImported	0.00	8,300.00
tblLandUse	LandUseSquareFeet	62,020.00	62,019.00
tblLandUse	LandUseSquareFeet	359,140.00	359,144.00
tblLandUse	LandUseSquareFeet	83,440.00	83,438.00
tblLandUse	LotAcreage	1.42	0.00
tblLandUse	LotAcreage	1.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.62
tblVehicleTrips	SU_TR	1.74	0.62
tblVehicleTrips	WD_TR	1.74	0.62
tblWater	IndoorWaterUseRate	14,342,125.00	358,847.00
tblWater	OutdoorWaterUseRate	0.00	1,036,088.00

2.0 Emissions Summary

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	67.8752	50.2643	35.3059	0.0912	9.0338	2.0706	11.1045	3.7755	1.9298	5.7053	0.0000	9,159.2795	9,159.2795	1.9606	0.4145	9,331.8142
Maximum	**67.8752**	**50.2643**	**35.3059**	**0.0912**	**9.0338**	**2.0706**	**11.1045**	**3.7755**	**1.9298**	**5.7053**	**0.0000**	**9,159.2795**	**9,159.2795**	**1.9606**	**0.4145**	**9,331.8142**

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	67.8752	50.2643	35.3059	0.0912	4.5296	2.0706	6.6003	1.8251	1.9298	3.7549	0.0000	9,159.2795	9,159.2795	1.9606	0.4145	9,331.8142
Maximum	**67.8752**	**50.2643**	**35.3059**	**0.0912**	**4.5296**	**2.0706**	**6.6003**	**1.8251**	**1.9298**	**3.7549**	**0.0000**	**9,159.2795**	**9,159.2795**	**1.9606**	**0.4145**	**9,331.8142**

	ROG	NOx	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**	**49.86**	**0.00**	**40.56**	**51.66**	**0.00**	**34.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Energy	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Mobile	0.0647	0.0675	0.6920	1.5700e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		160.1156	160.1156	8.2400e-003	6.4900e-003	162.2552
Total	**1.7742**	**0.1254**	**0.8048**	**1.9100e-003**	**0.1928**	**5.5900e-003**	**0.1984**	**0.0511**	**5.5100e-003**	**0.0566**		**229.0197**	**229.0197**	**9.9300e-003**	**7.7500e-003**	**231.5771**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Energy	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Mobile	0.0647	0.0675	0.6920	1.5700e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		160.1156	160.1156	8.2400e-003	6.4900e-003	162.2552
Total	**1.7742**	**0.1254**	**0.8048**	**1.9100e-003**	**0.1928**	**5.5900e-003**	**0.1984**	**0.0511**	**5.5100e-003**	**0.0566**		**229.0197**	**229.0197**	**9.9300e-003**	**7.7500e-003**	**231.5771**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	Site Preparation	Site Preparation	6/1/2022	6/3/2022	6	3	
2	Grading	Grading	6/6/2022	7/8/2022	6	29	
3	Building Construction	Building Construction	7/11/2022	9/30/2022	6	71	
4	Paving	Paving	10/3/2022	10/21/2022	6	17	
5	Architectural Coating	Architectural Coating	10/3/2022	10/14/2022	6	11	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 58

Acres of Paving: 10.16

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 93,029; Non-Residential Outdoor: 31,010; Striped Parking Area: 29,627 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Plate Compactors	1	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Excavators	0	8.00	158	0.38
Grading	Forklifts	1	8.00	89	0.20
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Tractors	1	8.00	124	0.44
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	8.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	1	8.00	89	0.20

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	1,038.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	233.00	91.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	47.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.2275	22.8236	17.1720	0.0344		1.0248	1.0248		0.9567	0.9567		3,289.2617	3,289.2617	0.8712		3,311.0411
Total	**2.2275**	**22.8236**	**17.1720**	**0.0344**	**7.0826**	**1.0248**	**8.1074**	**3.4247**	**0.9567**	**4.3815**		**3,289.2617**	**3,289.2617**	**0.8712**		**3,311.0411**

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	0.0592	0.0427	0.4356	1.0600e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		107.5118	107.5118	4.6500e-003	3.9700e-003	108.8104
Total	**0.0592**	**0.0427**	**0.4356**	**1.0600e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**107.5118**	**107.5118**	**4.6500e-003**	**3.9700e-003**	**108.8104**

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.2275	22.8236	17.1720	0.0344		1.0248	1.0248		0.9567	0.9567	0.0000	3,289.2617	3,289.2617	0.8712		3,311.0411
Total	**2.2275**	**22.8236**	**17.1720**	**0.0344**	**3.1872**	**1.0248**	**4.2119**	**1.5411**	**0.9567**	**2.4978**	**0.0000**	**3,289.2617**	**3,289.2617**	**0.8712**		**3,311.0411**

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	0.0592	0.0427	0.4356	1.0600e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		107.5118	107.5118	4.6500e-003	3.9700e-003	108.8104
Total	**0.0592**	**0.0427**	**0.4356**	**1.0600e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**107.5118**	**107.5118**	**4.6500e-003**	**3.9700e-003**	**108.8104**

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 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					8.1894	0.0000	8.1894	3.5463	0.0000	3.5463			0.0000			0.0000
Off-Road	4.2746	43.2078	32.9207	0.0668		2.0104	2.0104		1.8723	1.8723		6,424.5265	6,424.5265	1.7882		6,469.2327
Total	**4.2746**	**43.2078**	**32.9207**	**0.0668**	**8.1894**	**2.0104**	**10.1999**	**3.5463**	**1.8723**	**5.4185**		**6,424.5265**	**6,424.5265**	**1.7882**		**6,469.2327**

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	0.1582	6.9818	1.6228	0.0226	0.6233	0.0591	0.6824	0.1706	0.0565	0.2271		2,546.6073	2,546.6073	0.1642	0.4076	2,672.1634
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	0.1037	0.0747	0.7624	1.8500e-003	0.2210	1.1500e-003	0.2222	0.0586	1.0600e-003	0.0597		188.1457	188.1457	8.1300e-003	6.9400e-003	190.4181
Total	**0.2618**	**7.0565**	**2.3851**	**0.0244**	**0.8444**	**0.0602**	**0.9046**	**0.2293**	**0.0576**	**0.2868**		**2,734.7530**	**2,734.7530**	**0.1723**	**0.4145**	**2,862.5816**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 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					3.6853	0.0000	3.6853	1.5958	0.0000	1.5958			0.0000			0.0000
Off-Road	4.2746	43.2078	32.9207	0.0668		2.0104	2.0104		1.8723	1.8723	0.0000	6,424.5265	6,424.5265	1.7882		6,469.2327
Total	**4.2746**	**43.2078**	**32.9207**	**0.0668**	**3.6853**	**2.0104**	**5.6957**	**1.5958**	**1.8723**	**3.4681**	**0.0000**	**6,424.5265**	**6,424.5265**	**1.7882**		**6,469.2327**

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	0.1582	6.9818	1.6228	0.0226	0.6233	0.0591	0.6824	0.1706	0.0565	0.2271		2,546.6073	2,546.6073	0.1642	0.4076	2,672.1634
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	0.1037	0.0747	0.7624	1.8500e-003	0.2210	1.1500e-003	0.2222	0.0586	1.0600e-003	0.0597		188.1457	188.1457	8.1300e-003	6.9400e-003	190.4181
Total	**0.2618**	**7.0565**	**2.3851**	**0.0244**	**0.8444**	**0.0602**	**0.9046**	**0.2293**	**0.0576**	**0.2868**		**2,734.7530**	**2,734.7530**	**0.1723**	**0.4145**	**2,862.5816**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 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	2.0806	17.9262	18.3514	0.0319		0.9546	0.9546		0.9050	0.9050		3,009.3176	3,009.3176	0.6511		3,025.5943
Total	**2.0806**	**17.9262**	**18.3514**	**0.0319**		**0.9546**	**0.9546**		**0.9050**	**0.9050**		**3,009.3176**	**3,009.3176**	**0.6511**		**3,025.5943**

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	0.1943	5.2488	1.7125	0.0173	0.5395	0.0498	0.5893	0.1553	0.0476	0.2029		1,885.5241	1,885.5241	0.0759	0.2775	1,970.1103
Worker	0.6902	0.4973	5.0751	0.0123	1.4715	7.6300e-003	1.4791	0.3904	7.0300e-003	0.3974		1,252.5126	1,252.5126	0.0541	0.0462	1,267.6407
Total	**0.8845**	**5.7461**	**6.7876**	**0.0296**	**2.0110**	**0.0574**	**2.0685**	**0.5457**	**0.0547**	**0.6003**		**3,138.0367**	**3,138.0367**	**0.1300**	**0.3237**	**3,237.7511**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 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	2.0806	17.9262	18.3514	0.0319		0.9546	0.9546		0.9050	0.9050	0.0000	3,009.3176	3,009.3176	0.6511		3,025.5943
Total	**2.0806**	**17.9262**	**18.3514**	**0.0319**		**0.9546**	**0.9546**		**0.9050**	**0.9050**	**0.0000**	**3,009.3176**	**3,009.3176**	**0.6511**		**3,025.5943**

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	0.1943	5.2488	1.7125	0.0173	0.5395	0.0498	0.5893	0.1553	0.0476	0.2029		1,885.5241	1,885.5241	0.0759	0.2775	1,970.1103
Worker	0.6902	0.4973	5.0751	0.0123	1.4715	7.6300e-003	1.4791	0.3904	7.0300e-003	0.3974		1,252.5126	1,252.5126	0.0541	0.0462	1,267.6407
Total	**0.8845**	**5.7461**	**6.7876**	**0.0296**	**2.0110**	**0.0574**	**2.0685**	**0.5457**	**0.0547**	**0.6003**		**3,138.0367**	**3,138.0367**	**0.1300**	**0.3237**	**3,237.7511**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3034	12.0805	13.7907	0.0259		0.6209	0.6209		0.5822	0.5822		2,469.6394	2,469.6394	0.6819		2,486.6872
Paving	1.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5733**	**12.0805**	**13.7907**	**0.0259**		**0.6209**	**0.6209**		**0.5822**	**0.5822**		**2,469.6394**	**2,469.6394**	**0.6819**		**2,486.6872**

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	0.0592	0.0427	0.4356	1.0600e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		107.5118	107.5118	4.6500e-003	3.9700e-003	108.8104
Total	**0.0592**	**0.0427**	**0.4356**	**1.0600e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**107.5118**	**107.5118**	**4.6500e-003**	**3.9700e-003**	**108.8104**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	1.3034	12.0805	13.7907	0.0259		0.6209	0.6209		0.5822	0.5822	0.0000	2,469.6394	2,469.6394	0.6819		2,486.6872
Paving	1.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5733**	**12.0805**	**13.7907**	**0.0259**		**0.6209**	**0.6209**		**0.5822**	**0.5822**	**0.0000**	**2,469.6394**	**2,469.6394**	**0.6819**		**2,486.6872**

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	0.0592	0.0427	0.4356	1.0600e-003	0.1263	6.5000e-004	0.1270	0.0335	6.0000e-004	0.0341		107.5118	107.5118	4.6500e-003	3.9700e-003	108.8104
Total	**0.0592**	**0.0427**	**0.4356**	**1.0600e-003**	**0.1263**	**6.5000e-004**	**0.1270**	**0.0335**	**6.0000e-004**	**0.0341**		**107.5118**	**107.5118**	**4.6500e-003**	**3.9700e-003**	**108.8104**

3.6 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	64.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3542	3.0237	4.0613	6.1800e-003		0.1620	0.1620		0.1556	0.1556		592.0987	592.0987	0.1188		595.0686
Total	**65.1035**	**3.0237**	**4.0613**	**6.1800e-003**		**0.1620**	**0.1620**		**0.1556**	**0.1556**		**592.0987**	**592.0987**	**0.1188**		**595.0686**

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	0.1392	0.1003	1.0237	2.4800e-003	0.2968	1.5400e-003	0.2984	0.0788	1.4200e-003	0.0802		252.6528	252.6528	0.0109	9.3200e-003	255.7044
Total	**0.1392**	**0.1003**	**1.0237**	**2.4800e-003**	**0.2968**	**1.5400e-003**	**0.2984**	**0.0788**	**1.4200e-003**	**0.0802**		**252.6528**	**252.6528**	**0.0109**	**9.3200e-003**	**255.7044**

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3.6 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	64.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3542	3.0237	4.0613	6.1800e-003		0.1620	0.1620		0.1556	0.1556	0.0000	592.0987	592.0987	0.1188		595.0686
Total	**65.1035**	**3.0237**	**4.0613**	**6.1800e-003**		**0.1620**	**0.1620**		**0.1556**	**0.1556**	**0.0000**	**592.0987**	**592.0987**	**0.1188**		**595.0686**

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	0.1392	0.1003	1.0237	2.4800e-003	0.2968	1.5400e-003	0.2984	0.0788	1.4200e-003	0.0802		252.6528	252.6528	0.0109	9.3200e-003	255.7044
Total	**0.1392**	**0.1003**	**1.0237**	**2.4800e-003**	**0.2968**	**1.5400e-003**	**0.2984**	**0.0788**	**1.4200e-003**	**0.0802**		**252.6528**	**252.6528**	**0.0109**	**9.3200e-003**	**255.7044**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0647	0.0675	0.6920	1.5700e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		160.1156	160.1156	8.2400e-003	6.4900e-003	162.2552
Unmitigated	0.0647	0.0675	0.6920	1.5700e-003	0.1928	1.0000e-003	0.1938	0.0511	9.2000e-004	0.0520		160.1156	160.1156	8.2400e-003	6.4900e-003	162.2552

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	38.45	38.45	38.45	92,378	92,378
Total	38.45	38.45	38.45	92,378	92,378

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
Other Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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
Unrefrigerated Warehouse-No	6.60	5.50	6.40	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Other Non-Asphalt Surfaces	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Parking Lot	0.487868	0.051904	0.208483	0.155237	0.030766	0.007315	0.011402	0.006111	0.000989	0.000607	0.031259	0.003553	0.004508
Unrefrigerated Warehouse-No Rail	0.652009	0.069367	0.278626	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
NaturalGas Unmitigated	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743

21-12283 1550 West Stowell Road AQ Analysis - Santa Barbara County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	584.508	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Total		**6.3000e-003**	**0.0573**	**0.0481**	**3.4000e-004**		**4.3600e-003**	**4.3600e-003**		**4.3600e-003**	**4.3600e-003**		**68.7656**	**68.7656**	**1.3200e-003**	**1.2600e-003**	**69.1743**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.584508	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7656	68.7656	1.3200e-003	1.2600e-003	69.1743
Total		**6.3000e-003**	**0.0573**	**0.0481**	**3.4000e-004**		**4.3600e-003**	**4.3600e-003**		**4.3600e-003**	**4.3600e-003**		**68.7656**	**68.7656**	**1.3200e-003**	**1.2600e-003**	**69.1743**

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Mitigated	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Unmitigated	1.7033	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476

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	0.1951					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0200e-003	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Total	**1.7033**	**5.9000e-004**	**0.0647**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1385**	**0.1385**	**3.7000e-004**		**0.1476**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1951					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0200e-003	5.9000e-004	0.0647	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1385	0.1385	3.7000e-004		0.1476
Total	**1.7033**	**5.9000e-004**	**0.0647**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1385**	**0.1385**	**3.7000e-004**		**0.1476**

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 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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

21-12283 1550 West Stowell Road GHG Analysis

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	62.02	1000sqft	0.00	62,019.00	0
Other Asphalt Surfaces	359.14	1000sqft	8.24	359,144.00	0
Other Non-Asphalt Surfaces	83.44	1000sqft	1.92	83,438.00	0
Parking Lot	128.00	Space	0.00	51,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is located in Santa Maria, which is in Santa Barbara County. PG&E assumed to be utility provider

Land Use - Box shed warehouse would be approx 60,000 square feet with 2,019 square feet of office. 128 spaces in a parking lot. 83,438 sf of landscape area and 359,144 sf of paved area. 10.16 total acres

Construction Phase - Construction schedule provided by project applicant. Construction would occur six days per week. There is no demolition since the site is vacant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-road Equipment - Constructon equipment list provided by applicant

Off-road Equipment - Constructon equipment list provided by applicant

Trips and VMT -

Demolition -

Grading - 9,300 cy of soil would be cut with 17,600 cy of soil needed for fill. The project would require 8,300 cy of imported soil

Architectural Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Vehicle Trips - Box Shed Warehouse would have 35 daily trips for employes. 35 trips/62.019 ksf = 0.62 trips per ksf. There would be no new truck trips because trips are existing. Employee trips would be 100% primary and 100% C-W trips

Area Coating - Rule 323.1 for arch coating, nonflat coating VOC content limit of 100 g/L. The traffic marking coatings rate is 100 g/L

Water And Wastewater - Water usage for outdoor based on water usage calcualtion. Amount would be 1,036,088 gals/year. Indoor water use assumed only for office space area, which is 2.019 ksf. Using rate of 177,735 gal/size/yaer the indoor water usage woudl be 358,847 gals/year

Solid Waste -

Construction Off-road Equipment Mitigation - SBCAPCD Standard Dust Control Measures. Watering at least twice a day and reduce vehicle speed to 15 mph

Area Mitigation -

Fleet Mix - Employee trips were assumed to be LDA, LDT1, and LDT2.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	30.00	29.00
tblConstructionPhase	NumDays	300.00	71.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFleetMix	HHD	6.2230e-003	0.00
tblFleetMix	LDA	0.51	0.66
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.21	0.26
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.0620e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	3.0170e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	3.1850e-003	0.00
tblFleetMix	UBUS	5.3500e-004	0.00
tblGrading	MaterialImported	0.00	8,300.00
tblLandUse	LandUseSquareFeet	62,020.00	62,019.00
tblLandUse	LandUseSquareFeet	359,140.00	359,144.00
tblLandUse	LandUseSquareFeet	83,440.00	83,438.00
tblLandUse	LotAcreage	1.42	0.00
tblLandUse	LotAcreage	1.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.62
tblVehicleTrips	SU_TR	1.74	0.62
tblVehicleTrips	WD_TR	1.74	0.62
tblWater	IndoorWaterUseRate	14,342,125.00	358,847.00
tblWater	OutdoorWaterUseRate	0.00	1,036,088.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5539	1.7255	1.5736	3.8400e-003	0.2141	0.0737	0.2878	0.0796	0.0693	0.1489	0.0000	347.1949	347.1949	0.0580	0.0159	353.3909
Maximum	**0.5539**	**1.7255**	**1.5736**	**3.8400e-003**	**0.2141**	**0.0737**	**0.2878**	**0.0796**	**0.0693**	**0.1489**	**0.0000**	**347.1949**	**347.1949**	**0.0580**	**0.0159**	**353.3909**

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	0.5539	1.7255	1.5736	3.8400e-003	0.1429	0.0737	0.2166	0.0485	0.0693	0.1178	0.0000	347.1947	347.1947	0.0580	0.0159	353.3906
Maximum	**0.5539**	**1.7255**	**1.5736**	**3.8400e-003**	**0.1429**	**0.0737**	**0.2166**	**0.0485**	**0.0693**	**0.1178**	**0.0000**	**347.1947**	**347.1947**	**0.0580**	**0.0159**	**353.3906**

	ROG	NOx	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**	**33.24**	**0.00**	**24.73**	**39.09**	**0.00**	**20.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2022	8-31-2022	1.3925	1.3925
2	9-1-2022	9-30-2022	0.3392	0.3392
		Highest	1.3925	1.3925

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	0.3637	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0120
Energy	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	33.1268	33.1268	3.7400e-003	6.4000e-004	33.4094
Mobile	6.3100e-003	5.5300e-003	0.0763	2.2000e-004	0.0343	1.2000e-004	0.0344	9.1100e-003	1.1000e-004	9.2200e-003	0.0000	22.0052	22.0052	6.5000e-004	6.6000e-004	22.2178
Waste						0.0000	0.0000		0.0000	0.0000	12.1068	0.0000	12.1068	0.6003	0.0000	27.1152
Water						0.0000	0.0000		0.0000	0.0000	0.1270	0.5152	0.6421	5.2000e-004	2.9000e-004	0.7404
Total	**0.3712**	**0.0160**	**0.0909**	**2.8000e-004**	**0.0343**	**9.3000e-004**	**0.0352**	**9.1100e-003**	**9.2000e-004**	**0.0100**	**12.2337**	**55.6584**	**67.8922**	**0.6053**	**1.5900e-003**	**83.4948**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3637	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0120
Energy	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	33.1268	33.1268	3.7400e-003	6.4000e-004	33.4094
Mobile	6.3100e-003	5.5300e-003	0.0763	2.2000e-004	0.0343	1.2000e-004	0.0344	9.1100e-003	1.1000e-004	9.2200e-003	0.0000	22.0052	22.0052	6.5000e-004	6.6000e-004	22.2178
Waste						0.0000	0.0000		0.0000	0.0000	12.1068	0.0000	12.1068	0.6003	0.0000	27.1152
Water						0.0000	0.0000		0.0000	0.0000	0.1270	0.5152	0.6421	5.2000e-004	2.9000e-004	0.7404
Total	**0.3712**	**0.0160**	**0.0909**	**2.8000e-004**	**0.0343**	**9.3000e-004**	**0.0352**	**9.1100e-003**	**9.2000e-004**	**0.0100**	**12.2337**	**55.6584**	**67.8922**	**0.6053**	**1.5900e-003**	**83.4948**

	ROG	NOx	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	Site Preparation	Site Preparation	6/1/2022	6/3/2022	6	3	
2	Grading	Grading	6/6/2022	7/8/2022	6	29	
3	Building Construction	Building Construction	7/11/2022	9/30/2022	6	71	

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4	Paving	Paving	10/3/2022	10/21/2022	6	17	
5	Architectural Coating	Architectural Coating	10/3/2022	10/14/2022	6	11	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 58

Acres of Paving: 10.16

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 93,029; Non-Residential Outdoor: 31,010; Striped Parking Area: 29,627 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Dumpers/Tenders	1	8.00	16	0.38
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Plate Compactors	1	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Dumpers/Tenders	1	8.00	16	0.38
Grading	Excavators	0	8.00	158	0.38
Grading	Forklifts	1	8.00	89	0.20
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Tractors	1	8.00	124	0.44
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36

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Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pressure Washers	1	8.00	13	0.30
Paving	Rollers	1	8.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	1	8.00	89	0.20

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	1,038.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	233.00	91.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	47.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					0.0106	0.0000	0.0106	5.1400e-003	0.0000	5.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0342	0.0258	5.0000e-005		1.5400e-003	1.5400e-003		1.4400e-003	1.4400e-003	0.0000	4.4760	4.4760	1.1900e-003	0.0000	4.5056
Total	**3.3400e-003**	**0.0342**	**0.0258**	**5.0000e-005**	**0.0106**	**1.5400e-003**	**0.0122**	**5.1400e-003**	**1.4400e-003**	**6.5800e-003**	**0.0000**	**4.4760**	**4.4760**	**1.1900e-003**	**0.0000**	**4.5056**

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3.2 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	8.0000e-005	6.0000e-005	6.4000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1465	0.1465	1.0000e-005	1.0000e-005	0.1482
Total	**8.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1465**	**0.1465**	**1.0000e-005**	**1.0000e-005**	**0.1482**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7800e-003	0.0000	4.7800e-003	2.3100e-003	0.0000	2.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0342	0.0258	5.0000e-005		1.5400e-003	1.5400e-003		1.4400e-003	1.4400e-003	0.0000	4.4760	4.4760	1.1900e-003	0.0000	4.5056
Total	**3.3400e-003**	**0.0342**	**0.0258**	**5.0000e-005**	**4.7800e-003**	**1.5400e-003**	**6.3200e-003**	**2.3100e-003**	**1.4400e-003**	**3.7500e-003**	**0.0000**	**4.4760**	**4.4760**	**1.1900e-003**	**0.0000**	**4.5056**

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3.2 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	8.0000e-005	6.0000e-005	6.4000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1465	0.1465	1.0000e-005	1.0000e-005	0.1482
Total	**8.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1465**	**0.1465**	**1.0000e-005**	**1.0000e-005**	**0.1482**

3.3 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					0.1188	0.0000	0.1188	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0620	0.6265	0.4774	9.7000e-004		0.0292	0.0292		0.0272	0.0272	0.0000	84.5094	84.5094	0.0235	0.0000	85.0974
Total	**0.0620**	**0.6265**	**0.4774**	**9.7000e-004**	**0.1188**	**0.0292**	**0.1479**	**0.0514**	**0.0272**	**0.0786**	**0.0000**	**84.5094**	**84.5094**	**0.0235**	**0.0000**	**85.0974**

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3.3 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	2.3200e-003	0.1022	0.0234	3.3000e-004	8.8600e-003	8.6000e-004	9.7200e-003	2.4300e-003	8.2000e-004	3.2500e-003	0.0000	33.4924	33.4924	2.1600e-003	5.3600e-003	35.1437
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-003	1.0600e-003	0.0108	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4775	2.4775	1.0000e-004	9.0000e-005	2.5068
Total	**3.7200e-003**	**0.1033**	**0.0342**	**3.6000e-004**	**0.0120**	**8.8000e-004**	**0.0129**	**3.2600e-003**	**8.4000e-004**	**4.1000e-003**	**0.0000**	**35.9699**	**35.9699**	**2.2600e-003**	**5.4500e-003**	**37.6505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0534	0.0000	0.0534	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0620	0.6265	0.4774	9.7000e-004		0.0292	0.0292		0.0272	0.0272	0.0000	84.5093	84.5093	0.0235	0.0000	85.0973
Total	**0.0620**	**0.6265**	**0.4774**	**9.7000e-004**	**0.0534**	**0.0292**	**0.0826**	**0.0231**	**0.0272**	**0.0503**	**0.0000**	**84.5093**	**84.5093**	**0.0235**	**0.0000**	**85.0973**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 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	2.3200e-003	0.1022	0.0234	3.3000e-004	8.8600e-003	8.6000e-004	9.7200e-003	2.4300e-003	8.2000e-004	3.2500e-003	0.0000	33.4924	33.4924	2.1600e-003	5.3600e-003	35.1437
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-003	1.0600e-003	0.0108	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4775	2.4775	1.0000e-004	9.0000e-005	2.5068
Total	**3.7200e-003**	**0.1033**	**0.0342**	**3.6000e-004**	**0.0120**	**8.8000e-004**	**0.0129**	**3.2600e-003**	**8.4000e-004**	**4.1000e-003**	**0.0000**	**35.9699**	**35.9699**	**2.2600e-003**	**5.4500e-003**	**37.6505**

3.4 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	0.0739	0.6364	0.6515	1.1300e-003		0.0339	0.0339		0.0321	0.0321	0.0000	96.9153	96.9153	0.0210	0.0000	97.4394
Total	**0.0739**	**0.6364**	**0.6515**	**1.1300e-003**		**0.0339**	**0.0339**		**0.0321**	**0.0321**	**0.0000**	**96.9153**	**96.9153**	**0.0210**	**0.0000**	**97.4394**

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3.4 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	6.9000e-003	0.1876	0.0599	6.1000e-004	0.0188	1.7600e-003	0.0206	5.4300e-003	1.6900e-003	7.1100e-003	0.0000	60.7091	60.7091	2.4500e-003	8.9300e-003	63.4325
Worker	0.0229	0.0172	0.1757	4.4000e-004	0.0511	2.7000e-004	0.0514	0.0136	2.5000e-004	0.0138	0.0000	40.3793	40.3793	1.6800e-003	1.4600e-003	40.8565
Total	**0.0298**	**0.2048**	**0.2356**	**1.0500e-003**	**0.0699**	**2.0300e-003**	**0.0719**	**0.0190**	**1.9400e-003**	**0.0209**	**0.0000**	**101.0884**	**101.0884**	**4.1300e-003**	**0.0104**	**104.2890**

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	0.0739	0.6364	0.6515	1.1300e-003		0.0339	0.0339		0.0321	0.0321	0.0000	96.9151	96.9151	0.0210	0.0000	97.4393
Total	**0.0739**	**0.6364**	**0.6515**	**1.1300e-003**		**0.0339**	**0.0339**		**0.0321**	**0.0321**	**0.0000**	**96.9151**	**96.9151**	**0.0210**	**0.0000**	**97.4393**

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3.4 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	6.9000e-003	0.1876	0.0599	6.1000e-004	0.0188	1.7600e-003	0.0206	5.4300e-003	1.6900e-003	7.1100e-003	0.0000	60.7091	60.7091	2.4500e-003	8.9300e-003	63.4325
Worker	0.0229	0.0172	0.1757	4.4000e-004	0.0511	2.7000e-004	0.0514	0.0136	2.5000e-004	0.0138	0.0000	40.3793	40.3793	1.6800e-003	1.4600e-003	40.8565
Total	**0.0298**	**0.2048**	**0.2356**	**1.0500e-003**	**0.0699**	**2.0300e-003**	**0.0719**	**0.0190**	**1.9400e-003**	**0.0209**	**0.0000**	**101.0884**	**101.0884**	**4.1300e-003**	**0.0104**	**104.2890**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0111	0.1027	0.1172	2.2000e-004		5.2800e-003	5.2800e-003		4.9500e-003	4.9500e-003	0.0000	19.0436	19.0436	5.2600e-003	0.0000	19.1750
Paving	0.0108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0219**	**0.1027**	**0.1172**	**2.2000e-004**		**5.2800e-003**	**5.2800e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**19.0436**	**19.0436**	**5.2600e-003**	**0.0000**	**19.1750**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	4.7000e-004	3.5000e-004	3.6100e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8299	0.8299	3.0000e-005	3.0000e-005	0.8397
Total	**4.7000e-004**	**3.5000e-004**	**3.6100e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.8299**	**0.8299**	**3.0000e-005**	**3.0000e-005**	**0.8397**

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	0.0111	0.1027	0.1172	2.2000e-004		5.2800e-003	5.2800e-003		4.9500e-003	4.9500e-003	0.0000	19.0435	19.0435	5.2600e-003	0.0000	19.1750
Paving	0.0108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0219**	**0.1027**	**0.1172**	**2.2000e-004**		**5.2800e-003**	**5.2800e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**19.0435**	**19.0435**	**5.2600e-003**	**0.0000**	**19.1750**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	4.7000e-004	3.5000e-004	3.6100e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8299	0.8299	3.0000e-005	3.0000e-005	0.8397
Total	**4.7000e-004**	**3.5000e-004**	**3.6100e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**0.8299**	**0.8299**	**3.0000e-005**	**3.0000e-005**	**0.8397**

3.6 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	0.3561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9500e-003	0.0166	0.0223	3.0000e-005		8.9000e-004	8.9000e-004		8.6000e-004	8.6000e-004	0.0000	2.9543	2.9543	5.9000e-004	0.0000	2.9691
Total	**0.3581**	**0.0166**	**0.0223**	**3.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.6000e-004**	**8.6000e-004**	**0.0000**	**2.9543**	**2.9543**	**5.9000e-004**	**0.0000**	**2.9691**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 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	7.2000e-004	5.4000e-004	5.4900e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2619	1.2619	5.0000e-005	5.0000e-005	1.2768
Total	**7.2000e-004**	**5.4000e-004**	**5.4900e-003**	**1.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.2619**	**1.2619**	**5.0000e-005**	**5.0000e-005**	**1.2768**

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	0.3561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9500e-003	0.0166	0.0223	3.0000e-005		8.9000e-004	8.9000e-004		8.6000e-004	8.6000e-004	0.0000	2.9543	2.9543	5.9000e-004	0.0000	2.9691
Total	**0.3581**	**0.0166**	**0.0223**	**3.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.6000e-004**	**8.6000e-004**	**0.0000**	**2.9543**	**2.9543**	**5.9000e-004**	**0.0000**	**2.9691**

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3.6 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	7.2000e-004	5.4000e-004	5.4900e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2619	1.2619	5.0000e-005	5.0000e-005	1.2768
Total	**7.2000e-004**	**5.4000e-004**	**5.4900e-003**	**1.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.2619**	**1.2619**	**5.0000e-005**	**5.0000e-005**	**1.2768**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	6.3100e-003	5.5300e-003	0.0763	2.2000e-004	0.0343	1.2000e-004	0.0344	9.1100e-003	1.1000e-004	9.2200e-003	0.0000	22.0052	22.0052	6.5000e-004	6.6000e-004	22.2178
Unmitigated	6.3100e-003	5.5300e-003	0.0763	2.2000e-004	0.0343	1.2000e-004	0.0344	9.1100e-003	1.1000e-004	9.2200e-003	0.0000	22.0052	22.0052	6.5000e-004	6.6000e-004	22.2178

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	38.45	38.45	38.45	92,378	92,378
Total	38.45	38.45	38.45	92,378	92,378

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
Other Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	6.60	5.50	6.40	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.514923	0.057522	0.206064	0.138974	0.023636	0.006062	0.011219	0.006223	0.000940	0.000535	0.027699	0.003185	0.003017
Other Non-Asphalt Surfaces	0.514923	0.057522	0.206064	0.138974	0.023636	0.006062	0.011219	0.006223	0.000940	0.000535	0.027699	0.003185	0.003017
Parking Lot	0.514923	0.057522	0.206064	0.138974	0.023636	0.006062	0.011219	0.006223	0.000940	0.000535	0.027699	0.003185	0.003017
Unrefrigerated Warehouse-No Rail	0.661421	0.073887	0.264690	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.7418	21.7418	3.5200e-003	4.3000e-004	21.9568
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.7418	21.7418	3.5200e-003	4.3000e-004	21.9568
NaturalGas Mitigated	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526
NaturalGas Unmitigated	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	213345	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526
Total		**1.1500e-003**	**0.0105**	**8.7800e-003**	**6.0000e-005**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**11.3849**	**11.3849**	**2.2000e-004**	**2.1000e-004**	**11.4526**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	213345	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3849	11.3849	2.2000e-004	2.1000e-004	11.4526
Total		**1.1500e-003**	**0.0105**	**8.7800e-003**	**6.0000e-005**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**11.3849**	**11.3849**	**2.2000e-004**	**2.1000e-004**	**11.4526**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	17920	1.6580	2.7000e-004	3.0000e-005	1.6744
Unrefrigerated Warehouse-No Rail	217067	20.0838	3.2500e-003	3.9000e-004	20.2824
Total		**21.7418**	**3.5200e-003**	**4.2000e-004**	**21.9568**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	17920	1.6580	2.7000e-004	3.0000e-005	1.6744
Unrefrigerated Warehouse-No Rail	217067	20.0838	3.2500e-003	3.9000e-004	20.2824
Total		**21.7418**	**3.5200e-003**	**4.2000e-004**	**21.9568**

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 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	0.3637	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0120
Unmitigated	0.3637	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0120

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0890					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.3000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0120
Total	**0.3637**	**5.0000e-005**	**5.7800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0113**	**0.0113**	**3.0000e-005**	**0.0000**	**0.0120**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0890					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.3000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0113	0.0113	3.0000e-005	0.0000	0.0120
Total	**0.3637**	**5.0000e-005**	**5.7800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0113**	**0.0113**	**3.0000e-005**	**0.0000**	**0.0120**

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 Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6421	5.2000e-004	2.9000e-004	0.7404
Unmitigated	0.6421	5.2000e-004	2.9000e-004	0.7404

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.358847 / 1.03609	0.6421	5.2000e-004	2.9000e-004	0.7404
Total		**0.6421**	**5.2000e-004**	**2.9000e-004**	**0.7404**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.358847 / 1.03609	0.6421	5.2000e-004	2.9000e-004	0.7404
Total		**0.6421**	**5.2000e-004**	**2.9000e-004**	**0.7404**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.1068	0.6003	0.0000	27.1152
Unmitigated	12.1068	0.6003	0.0000	27.1152

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	58.3	12.1068	0.6003	0.0000	27.1152
Total		**12.1068**	**0.6003**	**0.0000**	**27.1152**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	58.3	12.1068	0.6003	0.0000	27.1152
Total		**12.1068**	**0.6003**	**0.0000**	**27.1152**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

11.0 Vegetation