AIR QUALITY, ENERGY, GREENHOUSE GAS EMISSIONS AND HEALTH RISK ASSESSMENT IMPACT ANALYSIS

SLOVER / ALDER AVENUE INDUSTRIAL PROJECT

BLOOMINGTON

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Project No. 21060

February 7, 2022

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BSFC	Brake Specific Fuel Consumption
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
Cf_4	tetrafluoromethane
C_2F_6	hexafluoroethane
CH_4	Methane
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
County	County of San Bernardino
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
ºF	Fahrenheit
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
GWP	Global warming potential
HAP	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
kWhr	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds

MATES	Multiple Air Toxics Exposure Study
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NO_x	Nitrogen oxides
NO_2	Nitrogen dioxide
OPR	Office of Planning and Research
Pfc	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PPM	Parts per million
PPB	Parts per billion
PPT	Parts per trillion
RTIP	Regional Transportation Improvement Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SF_6	Sulfur Hexafluoride
SIP	State Implementation Plan
SO_x	Sulfur oxides
TAC	Toxic air contaminants
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile organic compounds

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Air Quality, Energy, Greenhouse Gas (GHG) Emissions and Health Risk Assessment (HRA) Impact Analysis has been completed to determine the air quality, energy, GHG emissions and HRA impacts associated with the proposed Slover / Alder Avenue Industrial project (proposed project). The following is provided in this report:

- A description of the proposed project;
- A description of the atmospheric setting;
- A description of the criteria pollutants and GHGs;
- A description of the air quality regulatory framework;
- A description of the energy conservation regulatory framework;
- A description of the GHG emissions regulatory framework;
- A description of the air quality, energy, and GHG emissions thresholds including the California Environmental Quality Act (CEQA) significance thresholds;
- An analysis of the conformity of the proposed project with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP);
- An analysis of the short-term construction related and long-term operational air quality, energy, and GHG emissions impacts;
- An analysis of the cancer and non-cancer risks (acute and chronic) from operational TAC emissions; and
- An analysis of the conformity of the proposed project with all applicable energy and GHG emissions reduction plans and policies.

1.2 Site Locations and Study Area

The project site is located in Bloomington, which is an unincorporated area of the County of San Bernardino (County). The 13.23-acre project site currently contains two single-family residences on the northwest and southwest corner of the project site, three commercial/industrial buildings, a construction storage site, and trailer parking lot. Multiple shipping containers and other storage units are located on the northeast portion of the project site. The project site is bounded by Slover Avenue and a combination of industrial and residential uses to the north, industrial uses to the east, a combination of residential and industrial uses to the south, and Alder Avenue and a combination of residential and industrial uses to the west. The project local study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are the single-family homes that are located adjacent to the south side of the project site, where the residential structures are located as close as 30 feet south of the project site. The nearest school is Bloomington High School, which is located as near as 330 feet south of the project site.

1.3 Proposed Project Description

The proposed project consists of demolition of the existing buildings onsite and construction of an approximately 259,481 square foot high-cube warehouse building, inclusive of 4,000 square feet of office space. The Project also includes the construction of parking, landscaping, signage, and utility improvements to serve the site. A total of 40 dock-high doors are proposed. The dock doors would be placed along the northern boundary of the warehouse. The parking lot would include 131 passenger vehicle stalls and 85 trailer stalls to the north and to the east of the proposed building. . Vehicle access to the project site would be provided by two driveways on Slover Avenue and one driveway on Alder Avenue. The proposed site plan is shown in Figure 2.

1.4 Executive Summary

Standard Air Quality, Energy, and GHG Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the SCAQMD and State of California (State).

South Coast Air Quality Management District Rules

The following lists the SCAQMD rules that are applicable, but not limited to the proposed project.

- Rule 402 Nuisance – Controls the emissions of odors and other air contaminants;
- Rule 403 Fugitive Dust – Controls the emissions of fugitive dust;
- Rules 1108 and 1108.1 Cutback and Emulsified Asphalt – Controls the VOC content in asphalt;
- Rule 1113 Architectural Coatings – Controls the VOC content in paints and solvents; and
- Rule 1143 Paint Thinners – Controls the VOC content in paint thinners.
- Rule 1403 Asbestos Removal – Regulates asbestos emissions from demolition activities.

State of California Rules

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to the proposed project.

- CCR Title 13, Article 4.8, Chapter 9, Section 2449 – In use Off-Road Diesel Vehicles;
- CCR Title 13, Section 2025 – On-Road Diesel Truck Fleets;
- CCR Title 24 Part 6 – California Building Energy Standards; and
- CCR Title 24 Part 11 – California Green Building Standards.

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines air quality, energy, and GHG emissions checklist questions.

Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Less than significant impact.

Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact.

Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact.

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;

Less than significant impact.

Conflict with or obstruct a state or local plan for renewable energy;

Less than significant impact.

Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact.

Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Less than significant impact.

1.5 Project Design Features Incorporated into the Proposed Project

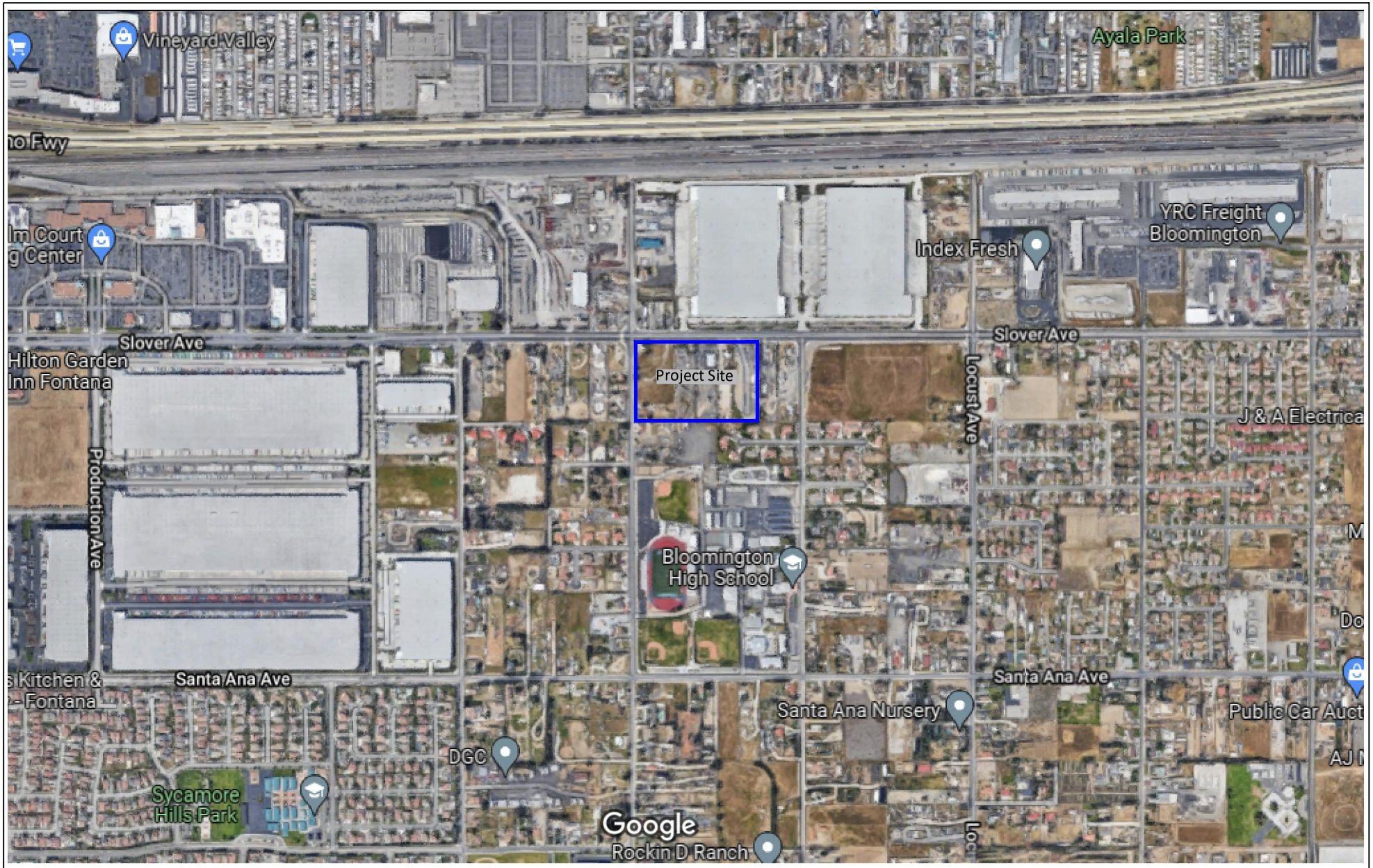
This analysis was based on implementation of the following project design features that the project applicant has committed to implementing. According to *Forklift Market Analysis, 2016-2027,* prepared by Grand View Research, 2019, currently two-thirds of all new forklifts sold are electric-powered and by 2027 three-quarter of all new forklifts will be electric-powered. As such Project Design Feature 1 is based on current market trends, as it would not be cost-effective to install the diesel tanks onsite for the limited duration of use of diesel-powered equipment onsite.

Project Design Feature 1:
All off-road equipment (non-street legal), such as forklifts and street sweepers, used onsite for warehouse operations shall be powered by alternative fuels, electrical batteries or other alternative/non-diesel fuels (e.g., propane or compressed natural gas (CNG)) that do not emit diesel particulate matter, and that are low or zero emission.

1.6 Mitigation Measures for the Proposed Project

This analysis found that implementation of the State and SCAQMD air quality, energy, and GHG emissions reductions regulations detailed in Section 1.4 above, through implementation of the Project Design Features detailed in Section 1.5 above would limit criteria pollutants, toxic air contaminants, odors, and

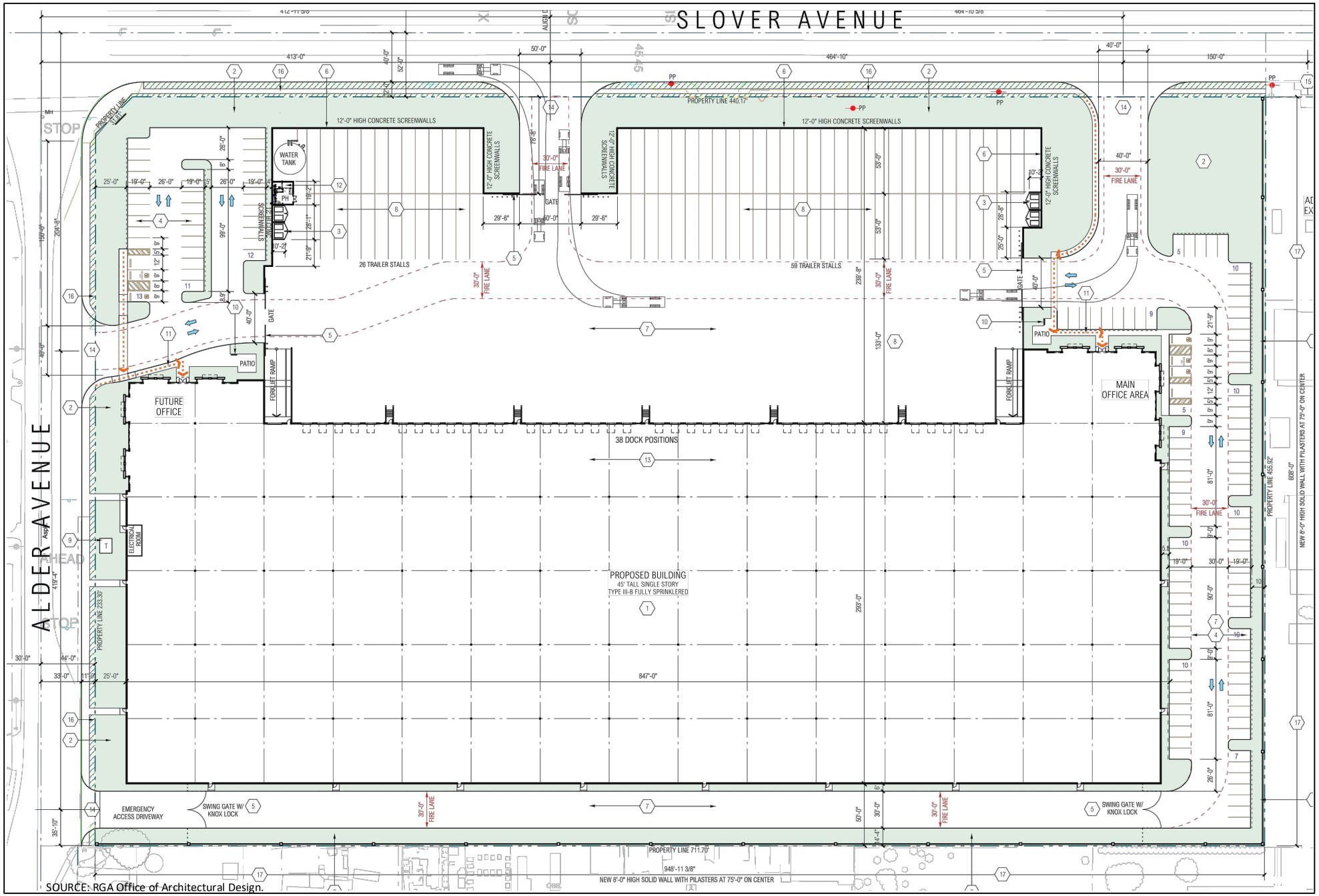
GHG emissions from the proposed project to less than significant levels. No mitigation measures are required for the proposed project with respect to air quality, energy, and GHG emissions.



SOURCE: Google Maps.

VISTA ENVIRONMENTAL

Figure 1
Project Local Study Area



SOURCE: RGA Office of Architectural Design.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 AIR POLLUTANTS

Air pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

2.1 Criteria Pollutants and Ozone Precursors

The criteria pollutants consist of: ozone, nitrogen oxides (NOx), CO, sulfur oxides (SOx), lead, and particulate matter (PM). The ozone precursors consist of NO_x and VOC. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and ozone precursors.

Nitrogen Oxides

NOx is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone is not usually emitted directly into the air, instead it is created by a chemical reaction between NOx and VOC in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves,

gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Oxides

SOx gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SOx dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

PM is the term for a mixture of solid particles and liquid droplets found in the air. PM is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) that are also known as *Respirable Particulate Matter* are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) that are also known as *Fine Particulate Matter* have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of ozone are referred to and regulated as VOCs (also

referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

VOC is not classified as a criteria pollutant, since VOCs by themselves are not a known source of adverse health effects. The primary health effects of VOCs result from the formation of ozone and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

2.2 Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, TACs are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 hundred different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is DPM. DPM is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

The various pollutants within DPM that also cause acute and chronic health impacts are detailed below in Table A. Table A was developed through crosschecking all diesel emissions pollutants provided in San

Diego Air Pollutant Control District's (SDAPCD) Diesel Fired Engines Emissions Factor Table to the list of acute and chronic reference exposure levels provided at: http://oehha.ca.gov/air/allrels.html.

According to the California Office of Environmental Health and Hazards Assessment (OEHHA), no acute risk had been found to be directly created from DPM, so there is no acute AREL assigned to DPM. However, as detailed in Table A, other TAC emissions associated with diesel exhaust do have an acute REL assigned to them. In order to account for the acute risk from all TAC emissions associated with diesel emissions, a hypothetical acute REL was calculated for DPM through multiplying each TAC with an acute REL to its diesel weight fraction and then adding together the results, which resulted in a hypothetical acute AREL of 2,189 for diesel emissions.

Table A – Diesel Emission Pollutants that Cause Acute and Chronic Health Impacts

TAC	TAC Potency Factors (µg/m³)[1]		Percent of DPM Emission Rate[3]	Target Organ Systems
	Acute REL[2]	Chronic REL		
1,3-Butadiene	660	140	0.51%	Development
Acetaldehyde	470	140	1.84%	Eyes, respiratory system (sensory irritation)
Acrolein	2.5	0.35	0.08%	Eyes, respiratory system
Arsenic	0.2	0.015	0.004%	Reproductive/developmental, cardiovascular system, nervous system
Benzene	27	3	0.44%	Hematologic system, immune system, reproductive/developmental
Cadmium	--	0.02	0.004%	kidney, respiratory system
Chlorobenzene	--	1,000	0.0005%	Eyes, respiratory system
Chromium (hexavalent)	--	0.2	0.001%	Respiratory system, hematologic system
Copper	100	--	0.01%	Respiratory system
Ethyl benzene	--	5	0.03%	Liver, kidney, developmental
Formaldehyde	55	9	4.07%	Eyes, immune system, respiratory
Hexane	--	200	0.06%	Nervous system
Hydrogen Chloride	2,100	9	0.44%	Eyes, respiratory system
Manganese	--	0.09	0.01%	Nervous system
Mercury	0.6	0.03	0.005%	Reproductive/developmental
Naphthalene	--	9	0.05%	Respiratory system
Nickel	0.2	002	0.01%	Immune system, respiratory system
Propylene	--	3000	1.10%	Respiratory System
Selenium	--	20	0.01%	Liver, cardiovascular system, nervous system
Toluene	37000	300	0.25%	Nervous system, eyes, respiratory system, reproductive/developmental
Xylene	22000	700	0.10%	Eyes, nervous and respiratory systems
DPM	--	5	--	Respiratory system

Notes:
[1] Potency factors obtained from: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
[2] REL = Reference Exposure Level
[3] Percentage of DPM Emission Rate calculated by dividing the pollutant's pounds per 1,000 gallons rate by the PM2.5 pounds per 1,000 gallons rate provided by the SDAPCD
Sources: SDAPCD, 2011 and OEHHA, 2014.

Asbestos

Asbestos is listed as a TAC by CARB and as a HAP by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. The nearest likely locations of naturally occurring asbestos, as identified in the *General Location Guide for Ultramafic Rocks in California*, prepared by the California Division of Mines and Geology, is located in Santa Barbara County. The nearest historic asbestos mine to the project site, as identified in the *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California,* prepared by U.S. Geological Survey, is located at Asbestos Mountain, which is approximately 60 miles southeast of the project site in the San Jacinto Mountains. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

In addition to naturally occurring asbestos, asbestos was used extensively in building construction from the early 1940s through the 1970s as highly-effective and inexpensive fire-retardant material and thermal and acoustic insulator. Asbestos is most commonly found as thermal insulation on pipes, but also may be found in certain types of floor and ceiling tiles. There are two types of asbestos: “friable” and "non-friable.” Friable asbestos generally contains more than 1 percent asbestos by weight or area, and can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand, which releases fibers. Non friable asbestos generally contains more than 1 percent asbestos but cannot be pulverized under hand pressure and generally does not release asbestos fibers. Due to the age of the existing onsite buildings, the project site has a potential to contain asbestos, which is analyzed below in Section 10.4 of this Report.

3.0 GREENHOUSE GASES

3.1 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This

could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is also commonly used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and race cars).

Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6).

Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

3.2 Global Warming Potential

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. The GHGs listed by the IPCC and the CEQA Guidelines are discussed in this section in order of abundance in the atmosphere. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. To simplify reporting and analysis, GHGs are commonly defined in terms of their GWP. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2 equivalent (CO_2e). As such, the GWP of CO_2 is equal to 1. The GWP values used in this analysis are based on the 2007 IPCC Fourth Assessment Report, which are used in CARB's 2014 Scoping Plan Update and the CalEEMod Model Version 2020.4.0 and are detailed in Table B. The IPCC has updated the Global Warming Potentials of some gases in their Fifth Assessment Report, however the new values have not yet been incorporated into the CalEEMod model that has been utilized in this analysis.

Table B – Global Warming Potentials, Atmospheric Lifetimes and Abundances of GHGs

Gas	Atmospheric Lifetime (years)[1]	Global Warming Potential (100 Year Horizon)[2]	Atmospheric Abundance
Carbon Dioxide (CO_2)	50-200	1	379 ppm
Methane (CH_4)	9-15	25	1,774 ppb
Nitrous Oxide (N_2O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF_4)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF_6)	3,200	22,800	5.6 ppt

Notes:

[1] Defined as the half-life of the gas.
[2] Compared to the same quantity of CO_2 emissions and is based on the Intergovernmental Panel On Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2020.4.0),that is used in this report (CalEEMod User Guide, May 2021).
Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion
Source: IPCC 2007, EPA 2015

3.3 Greenhouse Gas Emissions Inventory

According to the Carbon Dioxide Information Analysis Center[1], 9,855 million metric tons (MMT) of CO_2e emissions were created globally in the year 2014. According to the Environmental Protection Agency (EPA), the breakdown of global GHG emissions by sector consists of: 25 percent from electricity and heat production; 21 percent from industry; 24 percent from agriculture, forestry and other land use activities; 14 percent from transportation; 6 percent from building energy use; and 10 percent from all other sources of energy use[2].

According to *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019,* prepared by EPA, in 2019 total U.S. GHG emissions were 6,558 million metric tons (MMT) of CO_2e emissions. Total U.S. emissions have increased by 4 percent between 1990 and 2016 and GHG emissions decreased by 13 percent between 2005 and 2019. The recent decrease in GHG emissions was a result of multiple factors, including population, economic growth, energy markets, and technological changes the include energy efficiency and energy fuel choices. Between 2018 and 2019, GHG emissions decreased by almost 2 percent due to multiple factors, including a one percent decrease in total energy use.

According to *California Greenhouse Gas Emissions for 2000 to 2019 Trends of Emissions and Other Indicators*, prepared by CARB, July 28, 2021, the State of California created 418.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2019. The 2019 emissions were 7.2 $MMTCO_2e$ lower than 2018 levels and almost 13 $MMTCO_2e$ below the State adopted year 2020 GHG limit of 431 $MMTCO_2e$. The breakdown of California GHG emissions by sector consists of: 39.7 percent from transportation; 21.1 percent from industrial; 14.1 percent from electricity generation; 7.6 percent from agriculture; 10.5 percent from residential and commercial buildings; 4.9 percent from high global warming potential sources, and 2.1 percent from waste.

1 Obtained from: https://cdiac.ess-dive.lbl.gov/trends/emis/tre_glob_2014.html
2 Obtained from: https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data

4.0 AIR QUALITY MANAGEMENT

The project site is located within the South Coast Air Basin (Air Basin). The air quality at the project site is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

4.1 Federal – United States Environmental Protection Agency

The Clean Air Act, first passed in 1963 with major amendments in 1970, 1977 and 1990, is the overarching legislation covering regulation of air pollution in the United States. The Clean Air Act has established the mandate for requiring regulation of both mobile and stationary sources of air pollution at the state and federal level. The EPA was created in 1970 in order to consolidate research, monitoring, standard-setting and enforcement authority into a single agency.

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. NAAQS pollutants were identified using medical evidence and are shown below in Table C.

Table C – State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone	0.09 ppm / 1-hour 0.07 ppm / 8-hour	0.070 ppm, / 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm / 1-hour 9.0 ppm / 8-hour	35.0 ppm / 1-hour 9.0 ppm / 8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm / 1-hour 0.030 ppm / annual	100 ppb / 1-hour 0.053 ppm / annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate	50 µg/m^3 / 24-hour 20 µg/m^3 / annual	150 µg/m^3 / 24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Matter (PM_{10})			pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3 / 24-hour 12 µg/m^3 / annual	
Sulfates	25 µg/m^3 / 24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Lead	1.5 µg/m^3 / 30-day	0.15 µg/m^3 /3-month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf .

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years. As indicated below in Table D, the Air Basin has been designated by EPA for the national standards as a non-attainment area for ozone and PM2.5 and partial non-attainment for lead. Currently, the Air Basin is in attainment with the national ambient air quality standards for CO, PM10, SO_2, and NO_2.

Table D – South Coast Air Basin Attainment Status

Criteria Pollutant	Standard	Averaging Time	Designation[a)]	Attainment Date[b)]
1-Hour Ozone[c)]	NAAQS	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (revised deadline)
	CAAQS	1-Hour (0.09 ppm)	Nonattainment	N/A
8-Hour Ozone[d)]	NAAQS	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	NAAQS	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	8/3/2038
	NAAQS	2015 8-Hour (0.070 ppm)	Pending – Expect Nonattainment (Extreme)	Pending (beyond 2032)
	CAAQS	8-Hour (0.070 ppm)	Nonattainment	Beyond 2032

Criteria Pollutant	Standard	Averaging Time	Designation[a)]	Attainment Date[b)]
CO	NAAQS	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	CAAQS	1-Hour (20 ppm) 8-Hour (9 ppm)	Attainment	6/11/2007 (attained)
NO_2[e)]	NAAQS	2010 1-Hour (0.10 ppm)	Unclassifiable/ Attainment	N/A (attained)
	NAAQS	1971 Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
	CAAQS	1-Hour (0.18 ppm) Annual (0.030 ppm)	Attainment	---
SO_2[f)]	NAAQS	2010 1-Hour (75 ppb)	Designations Pending (expect Unclassifiable/ Attainment)	N/A (attained)
	NAAQS	1971 24-Hour (0.14 ppm) 1971 Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (attained)
PM10	NAAQS	1987 24-hour (150 µg/m^3)	Attainment (Maintenance)[g)]	7/26/2013 (attained)
	CAAQS	24-hour (50 µg/m^3) Annual (20 µg/m^3)	Nonattainment	N/A
PM2.5[h)]	NAAQS	2006 24-Hour (35 µg/m^3)	Nonattainment (Serious)	12/31/2019
	NAAQS	1997 Annual (15.0 µg/m^3)	Attainment (final determination pending)	8/24/2016 (attained 2013)
	NAAQS	2012 Annual (12.0 µg/m^3)	Nonattainment (Moderate)	12/31/2025
	CAAQS	Annual (12.0 µg/m^3)	Nonattainment	N/A
Lead[i)]	NAAQS	2008 3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial) (Attainment determination requested)	12/31/2015

Source: SCAQMD, February 2016

Notes:

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration

c) The 1979 1-hour ozone standard (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm. Effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone implementation rule, effective 4/6/15;there are continuing obligations under the revoked 1997 and revised 2008 ozone until they are attained.

e) New NO_2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO_2 standard retained

f) The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.

g) Annual PM10 standard was revoked, effective December 18, 2006; 24-hour PM10 NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM10 maintenance plan was approved by U.S. EPA on June 26, 2013, effective July 26, 2013.

h) The attainment deadline for the 2006 24-Hour PM2.5 NAAQS was 12/31/15 for the former "moderate" classification; EPA approved reclassification to "serious", effective 2/12/16 with an attainment deadline of 12/31/19; the 2012 (proposal year) annual PM2.5 NAAQS was revised on 1/15/13, effective 3/18/13, from 15 to 12 µg/m^3; new annual designations were final 1/15/15, effective 4/15/15; on July 25, 2016 EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m^3) and 24-hour PM2.5 (65 µg/m^3) NAAQS, effective August 24, 2016

i) Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect to remain in attainment based on current monitoring data; attainment re-designation request pending.

In 2015, one or more stations in the Air Basin exceeded the most current federal standards on a total of 146 days (40 percent of the year), including: 8-hour ozone (113 days over 2015 ozone NAAQS), 24-hour PM2.5 (30 days, including near-road sites; 25 days for ambient sites only), PM10 (2 days), and NO_2 (1 day).

Despite substantial improvement in air quality over the past few decades, some air monitoring stations in the Air Basin still exceed the NAAQS for ozone more frequently than any other area in the United States. Seven of the top 10 stations in the nation most frequently exceeding the 2015 8-hour ozone NAAQS in 2015 were located within the Air Basin, including stations in San Bernardino, Riverside, and Los Angeles Counties (SCAQMD, 2016).

PM2.5 levels in the Air Basin have improved significantly in recent years. By 2013 and again in 2014 and 2015, there were no stations measuring PM2.5 in the Air Basin that violated the former 1997 annual PM2.5 NAAQS (15.0 $\mu g/m^3$) for the 3-year design value period. On July 25, 2016 the EPA finalized a determination that the Basin attained the 1997 annual (15.0 $\mu g/m^3$) and 24-hour PM2.5 (65 $\mu g/m^3$) NAAQS, effective August 24, 2016. Of the 17 federal PM2.5 monitors at ambient stations in the Air Basin for the 2013-2015 period, five stations had design values over the current 2012 annual PM2.5 NAAQS (12.0 $\mu g/m^3$), including: Mira Loma (Air Basin maximum at 14.1 $\mu g/m^3$), Rubidoux, Fontana, Ontario, Central Los Angeles, and Compton. For the 24-hour PM2.5 NAAQS (35.0 $\mu g/m^3$) there were 14 stations in the Air Basin in 2015 that had one or more daily exceedances of the standard, with a combined total of 25 days over that standard in the Air Basin. While it was previously anticipated that the Air Basin's 24-hour PM2.5 NAAQS would be attained by 2015, this did not occur based on the data for 2013 through 2015. The higher number of days exceeding the 24-hour PM2.5 NAAQS over what was expected is largely attributed to the severe drought conditions over this period that allowed for more stagnant conditions in the Air Basin with multi-day buildups of higher PM2.5 concentrations. This was caused by the lack of storm-related dispersion and rain-out of PM and its precursors (SCAQMD, 2016).

The Air Basin is currently in attainment for the federal standards for SO_2, CO, NO_2, and PM10 and the San Bernardino County portion of the Air Basin is currently in attainment for the federal standards for lead. While the concentration level of the 1-hour NO_2 federal standard (100 ppb) was exceeded in the Air Basin for one day in 2015 (Long Beach- Hudson Station), the NAAQS NO_2 design value has not been exceeded. Therefore, the Air Basin remains in attainment of the NO_2 NAAQS (SCAQMD, 2016).

4.2 State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants are shown above in Table C. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The Air Basin has been designated by the CARB as a non-attainment area for ozone, PM10 and PM2.5. Currently, the Air Basin is in attainment with the ambient air quality standards for CO, NO_2, SO_2, lead, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to all warehouse projects in the State.

Assembly Bill 2588

The Air Toxics "Hot Spots" Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release in California. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

CARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 to reduce DPM and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less). Currently, no commercial operation in California may add any equipment to their fleet that has a Tier 0 or Tier 1 engine. By January 1, 2018 medium and large fleets will be restricted from adding Tier 2 engines to their fleets and by January 2023, no commercial operation will be allowed to add Tier 2 engines to their fleets. It should be noted that commercial fleets may continue to use their existing Tier 0 and 1 equipment, if they can demonstrate that the average emissions from their entire fleet emissions meet the NOx emissions targets.

CARB Resolution 08-43 for On-Road Diesel Truck Fleets

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. By January 1, 2014, 50 percent of a truck fleet is required to have installed Best Available Control Technology (BACT) for NOx emissions and 100 percent of a truck fleet installed BACT for PM10 emissions. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks utilized during construction of the proposed project will be required to comply with Resolution 08-43.

4.3 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The *Final 2016 Air Quality Management Plan* (2016 AQMP) was adopted by the SCAQMD Board on March 3, 2016 and was adopted by CARB on March 23, 2017 for inclusion into the SIP. The 2016 AQMP was prepared in order to meet the following standards:

- 8-hour Ozone (75 ppb) by 2032
- Annual PM2.5 (12 µg/m3) by 2021-2025
- 8-hour Ozone (80 ppb) by 2024 (updated from the 2007 and 2012 AQMPs)
- 1-hour Ozone (120 ppb) by 2023 (updated from the 2012 AQMP)
- 24-hour PM2.5 (35 µg/m^3) by 2019 (updated from the 2012 AQMP)

In addition to meeting the above standards, the 2016 AQMP also includes revisions to the attainment demonstrations for the 1997 8-hour ozone NAAQS and the 1979 1-hour ozone NAAQS. The prior 2012 AQMP was prepared in order to demonstrate attainment with the 24-hour PM2.5 standard by 2014 through adoption of all feasible measures. The prior 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through implementation of future improvements in control techniques and technologies. These "black box" emissions reductions represent 65 percent of the remaining NOx emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone NAAQS. Given the magnitude of these needed emissions reductions, additional NOx control measures have been provided in the 2012 AQMP even though the primary purpose was to show compliance with 24-hour PM2.5 emissions standards.

The 2016 AQMP provides a new approach that focuses on available, proven and cost effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities to promote reductions in GHG emissions and TAC emissions as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the Air Basin. Instead, this is controlled through local jurisdictions in accordance to CEQA. In order to assist local jurisdictions with air quality compliance issues the *CEQA Air Quality Handbook* (SCAQMD CEQA Handbook), prepared by SCAQMD, 1993, with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs detailed in the AQMPs. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD

intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the Air Basin, and adverse impacts will be minimized.

The following lists the SCAQMD rules that are applicable but not limited to warehouse projects in the Air Basin.

Rule 402 - Nuisance

Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Compliance with Rule 402 will reduce local air quality and odor impacts to nearby sensitive receptors.

Rule 403- Fugitive Dust

Rule 403 governs emissions of fugitive dust during construction activities and requires that no person shall cause or allow the emissions of fugitive dust such that dust remains visible in the atmosphere beyond the property line or the dust emission exceeds 20 percent opacity, if the dust is from the operation of a motorized vehicle. Compliance with this rule is achieved through application of standard Best Available Control Measures, which include but are not limited to the measures below. Compliance with these rules would reduce local air quality impacts to nearby sensitive receptors.

- Utilize either a pad of washed gravel 50 feet long, 100 feet of paved surface, a wheel shaker, or a wheel washing device to remove material from vehicle tires and undercarriages before leaving project site.
- Do not allow any track out of material to extend more than 25 feet onto a public roadway and remove all track out at the end of each workday.
- Water all exposed areas on active sites at least three times per day and pre-water all areas prior to clearing and soil moving activities.
- Apply nontoxic chemical stabilizers according to manufacturer specifications to all construction areas that will remain inactive for 10 days or longer.
- Pre-water all material to be exported prior to loading, and either cover all loads or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114.
- Replant all disturbed area as soon as practical.
- Suspend all grading activities when wind speeds (including wind gusts) exceed 25 miles per hour.
- Restrict traffic speeds on all unpaved roads to 15 miles per hour or less.

Rules 1108 and 1108.1 – Cutback and Emulsified Asphalt

Rules 1108 and 1108.1 govern the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt. This rule regulates the VOC contents of asphalt used during construction as well as any on-going maintenance during operations. Therefore, all asphalt used during construction and operation of the proposed project must comply with SCAQMD Rules 1108 and 1108.1.

Rule 1113 – Architectural Coatings

Rule 1113 governs the sale, use, and manufacturing of architectural coatings and limits the VOC content in sealers, coatings, paints and solvents. This rule regulates the VOC contents of paints available during construction. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Rule 1143 – Paint Thinners

Rule 1143 governs the sale, use, and manufacturing of paint thinners and multi-purpose solvents that are used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations. This rule regulates the VOC content of solvents used during construction. Solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1143.

Rule 1403 – Asbestos Removal

Rule 1403 governs asbestos emissions from demolition and renovation activities. The existing structures on the project site shall be surveyed for asbestos prior to demolition activities. If asbestos is found within the existing structures, the asbestos shall be removed through utilization of the removal procedures detailed in Rule 1403.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal), adopted September 3, 2020and the *2019 Federal Transportation Improvement* Program (2019 FTIP), adopted September 2018, which addresses regional development and growth forecasts. Although the Connect SoCal and 2019 FTIP are primarily planning documents for future transportation projects a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Connect SoCal, 2019 FTIP, and AQMP are based on projections originating within the City and County General Plans.

4.4 Local – County of San Bernardino

Local jurisdictions, such as the County of San Bernardino, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The County is also responsible for the implementation of transportation control measures as outlined in the AQMPs. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the County does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the County and region will meet federal and state standards. Instead, the County relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

5.0 ENERGY CONSERVATION MANAGEMENT

The regulatory setting related to energy conservation is primarily addressed through State and County regulations, which are discussed below.

5.1 State

Energy conservation management in the State was initiated by the 1974 Warren-Alquist State Energy Resources Conservation and Development Act that created the California Energy Resource Conservation and Development Commission (currently named California Energy Commission [CEC]), which was originally tasked with certifying new electric generating plants based on the need for the plant and the suitability of the site of the plant. In 1976 the Warren-Alquist Act was expanded to include new restrictions on nuclear generating plants, that effectively resulted in a moratorium of any new nuclear generating plants in the State. The following details specific regulations adopted by the State in order to reduce the consumption of energy.

California Code of Regulations (CCR) Title 20

On November 3, 1976 the CEC adopted the *Regulations for Appliance Efficiency Standards Relating to Refrigerators, Refrigerator-Freezers and Freezers and Air Conditioners,* which were the first energy-efficiency standards for appliances. The appliance efficiency regulations have been updated several times by the Commission and the most current version is the *2016 Appliance Efficiency Regulations*, adopted January 2017 and now includes almost all types of appliances and lamps that use electricity, natural gas as well as plumbing fixtures. The authority for the CEC to control the energy-efficiency of appliances is detailed in California Code of Regulations (CCR), Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609.

California Code of Regulations (CCR) Title 24, Part 6

The CEC is also responsible for implementing the CCR Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24 Part 6) that were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. In 2008 the State set an energy-use reduction goal of zero-net-energy use of all new homes by 2020 and the CEC was mandated to meet this goal through revisions to the Title 24, Part 6 regulations.

The Title 24 standards are updated on a three-year schedule and since 2008 the standards have been incrementally moving to the 2020 goal of the zero-net-energy use. On January 1, 2020 the 2019 standards went into effect, that have been designed so that the average new home built in California will now use zero-net-energy and that non-residential buildings will use about 30 percent less energy than the 2016 standards due mainly to lighting upgrades. The 2019 standards also encourage the use of battery storage and heat pump water heaters, require the more widespread use of LED lighting, as well as improve the building's thermal envelope through high performance attics, walls and windows. The 2019 standards also require improvements to ventilation systems by requiring highly efficient air filters to trap hazardous air particulates as well as improvements to kitchen ventilation systems.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CalGreen) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CalGreen Building

Standards are also updated every three years and the current version is the 2019 California Green Building Standard Code that become effective on January 1, 2020.

The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2019 CALGreen Code over the prior 2016 CALGreen Code include: an alignment of building code engineering requirements with the national standards that include anchorage requirements for solar panels, provides design requirements for buildings in tsunami zones, increases Minimum Efficiency Reporting Value (MERV) for air filters from 8 to 13, increased electric vehicle charging requirements in parking areas, and sets minimum requirements for use of shade trees.

Executive Order N-79-20

The California Governor issued Executive Order N-79-20 on September 23, 2020 that requires all new passenger cars and trucks and commercial drayage trucks sold in California to be zero-emissions by the year 2035 and all medium- heavy-duty vehicles (commercial trucks) sold in the state to be zero-emission by 2045 for all operations where feasible. Executive Order N-79-20 also requires all off-road vehicles and equipment to transition to 100 percent zero-emission equipment, where feasible by 2035.

Senate Bill 100

Senate Bill 100 (SB 100) was adopted September 2018 and requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity. SB 100 supersedes the renewable energy requirements set by SB 350, SB 1078, SB 107, and SB X1-2. SB 100 codified the interim renewable energy thresholds from the prior Bills of: 33 percent by 2020, 40 percent by December 31, 2024, 45 percent by December 31, 2027, and 50 percent by December 31, 2030.

Executive Order B-48-18 and Assembly Bill 2127

The California Governor issued Executive Order B-48-18 on January 26, 2018 that orders all state entities to work with the private sector to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025. Currently there are approximately 350,000 electric vehicles operating in California, which represents approximately 1.5 percent of the 24 million vehicles total currently operating in California. Implementation of Executive Order B-48-18 would result in approximately 20 percent of all vehicles in California to be zero emission electric vehicles. Assembly Bill 2127 (AB 2127) was codified into statute on September 13, 2018 and

requires that the California Energy Commission working with the State Air Resources Board prepare biannual assessments of the statewide electric vehicle charging infrastructure needed to support the levels of zero emission vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030.

Assembly Bill 1109

California Assembly Bill 1109 (AB 1109) was adopted October 2007, also known as the Lighting Efficiency and Toxics Reduction Act, prohibits the manufacturing of lights after January 1, 2010 that contain levels of hazardous substances prohibited by the European Union pursuant to the RoHS Directive. AB 1109 also requires reductions in energy usage for lighting and is structured to reduce lighting electrical consumption by: (1) At least 50 percent reduction from 2007 levels for indoor residential lighting; and (2) At least 25 percent reduction from 2007 levels for indoor commercial and all outdoor lighting by 2018. AB 1109 would reduce GHG emissions through reducing the amount of electricity required to be generated by fossil fuels in California.

Assembly Bill 1493

California Assembly Bill 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted on July 22, 2002 and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the "Pavley I" regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. These regulations will reduce GHG emissions by 30 percent from 2002 levels by 2016. In June 2009, the EPA granted California the authority to implement GHG emission reduction standards for light duty vehicles, in September 2009, amendments to the Pavley I regulations were adopted by CARB and implementation of the "Pavley I" regulations started in 2009.

The second set of regulations "Pavley II" was developed in 2010, and is being phased in between model years 2017 through 2025 with the goal of reducing GHG emissions by 45 percent by the year 2020 as compared to the 2002 fleet. The Pavley II standards were developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the "LEV III" (third stage of the Low Emission Vehicle standards) into a single regulatory framework. The new rules reduce emissions from gasoline-powered cars as well as promote zero-emissions auto technologies such as electricity and hydrogen, and through increasing the infrastructure for fueling hydrogen vehicles. In 2009, the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles and these GHG emissions standards are currently being implemented nationwide. However, EPA has performed a midterm evaluation of the longer-term standards for model years 2022-2025, and based on the findings of this midterm evaluation, the EPA proposed The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026 that amends the corporate average fuel economy (CAFE) and GHG emissions standards for light vehicles for model years 2021 through 2026. The EPA's proposed amendments do not include any extension of the legal waiver granted to California by the 1970 Clean Air Act and which has allowed the State to set tighter standards for vehicle pipe emissions than the EPA standards. On September 20, 2019, California filed suit over the EPA decision to revoke California's legal waiver that has been joined by 22 other states.

5.2 Local – County of San Bernardino

The applicable energy plan for the proposed project is the *County of San Bernardino General Plan Renewable Energy and Conservation Element*, Amended February, 2019. The applicable energy-related policies in the General Plan for the proposed project are shown in Table E.

Table E – Applicable County of San Bernardino General Plan Energy-Related Policies

Policy No.	General Plan Policy
1.4	Encourage residents and businesses to conserve energy.
2.1	Support solar energy generation, solar water heating, wind energy and bioenergy systems that are consistent with the orientation, siting and environmental compatibility policies of the General Plan.
2.2	Promote use of energy storage technologies that are appropriate for the character of the proposed location.
2.3	Encourage the use of feasible emerging and experimental renewable energy technologies that are compatible with County regulatory standards.
2.6	Encourage energy efficiency through appropriate renewable energy systems.
3.1	Prioritize, facilitate, and encourage onsite accessory RE generation to serve the unincorporated county, with a primary focus on rooftop and parking lot solar energy generation.

Source: County of San Bernardino, 2019.

6.0 GLOBAL CLIMATE CHANGE MANAGEMENT

The regulatory setting related to global climate change is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to reduce GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for global climate change regulations are discussed below.

6.1 International

In 1988, the United Nations established the IPCC to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. The parties of the UNFCCC adopted the Kyoto Protocol, which set binding GHG reduction targets for 37 industrialized countries, the objective of reducing their collective GHG emissions by five percent below 1990 levels by 2012. The Kyoto Protocol has been ratified by 182 countries, but has not been ratified by the United States. It should be noted that Japan and Canada opted out of the Kyoto Protocol and the remaining developed countries that ratified the Kyoto Protocol have not met their Kyoto targets. The Kyoto Protocol expired in 2012 and the amendment for the second commitment period from 2013 to 2020 has not yet entered into legal force. The Parties to the Kyoto Protocol negotiated the Paris Agreement in December 2015, agreeing to set a goal of limiting global warming to less than 2 degrees Celsius compared with pre-industrial levels. The Paris Agreement has been adopted by 195 nations with 147 ratifying it, including the United States by President Obama, who ratified it by Executive Order on September 3, 2016. On June 1, 2017, President Trump announced that the United States is withdrawing from the Paris Agreement and on January 21, 2021 President Biden signed an executive order rejoining the Paris Agreement.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

6.2 Federal – United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce U.S. GHG intensity. These programs focus on energy efficiency, renewable energy, methane, and other non-CO_2 gases, agricultural practices and implementation of technologies to achieve GHG reductions. EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions did not impose any requirements on industry or other entities, however, since 2009 the EPA has been providing GHG emission standards for vehicles and other stationary sources of GHG emissions that are regulated by the EPA. On September 13, 2013 the EPA Administrator signed 40 CFR Part 60, that limits emissions from new sources to 1,100 pounds of CO_2 per mega-watt hour (MWh) for fossil fuel-fired utility boilers and 1,000 pounds of CO_2 per MWh for large natural gas-fired combustion units.

On August 3, 2015, the EPA announced the Clean Power Plan, emissions guidelines for U.S. states to follow in developing plans to reduce GHG emissions from existing fossil fuel-fired power plants (Federal Register Vol. 80, No. 205, October 23 2015). On October 11, 2017, the EPA issued a formal proposal to repeal the Clean Power Plan and on June 19, 2019 the EPA replaced the Clean Power Plan with the Affordable Clean Energy rule that is anticipated to lower power sector GHG emissions by 11 million tons by the year 2030.

On April 30, 2020, the EPA and the National Highway Safety Administration published the Final Rule for the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). Part One of the Rule revokes California's authority to set its own GHG emissions standards and zero-emission vehicle mandates in California, which results in one emission standard to be used nationally for all passenger cars and light trucks that is set by the EPA.

6.3 State

The CARB has the primary responsible for implementing state policy to address global climate change, however there are State regulations related to global climate change that affect a variety of State agencies. CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both the federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2008, CARB approved a Climate Change Scoping Plan that proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The Climate Change Scoping Plan has a range of GHG reduction actions which include direct

regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary actions; market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB, 2014) that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017 CARB adopted the California's 2017 Climate Change Scoping Plan, November 2017 (CARB, 2017) that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. In addition, the State has passed the following laws directing CARB to develop actions to reduce GHG emissions, which are listed below in chronological order, with the most current first.

Executive Order N-79-20

EO N-79-20 establish targets for when all new vehicles and equipment are zero-emission and is described in more detail above in Section 5.1 under Energy Conservation Management.

California Code of Regulations (CCR) Title 24, Part 6

The Title 24 Part 6 standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the Title 24 Part 6 building standards would also reduce GHG emissions, since as detailed above in Section 3.3 Greenhouse Gas Emissions Inventory, energy use for residential and commercial buildings creates 9.7 percent of the GHG emissions in the State.

California Code of Regulations (CCR) Title 24, Part 11

The CalGreen Building standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the CalGreen Building standards would also reduce GHG emissions, since as detailed above under Title 24, Part 6, energy usage from buildings creates 9.7 percent of GHG emissions in the State.

Senate Bill 100

SB 100 requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-48-18 and Assembly Bill 2127

Executive Order B-48-18 and AB 2127 provides measures to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025 and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-30-15, Senate Bill 32 and Assembly Bill 197

The California Governor issued Executive Order B-30-15 on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. This executive order aligns California's GHG reduction targets with those of other international governments, such as the European Union that set the same target for 2030 in October, 2014. This target will make it possible to reach the ultimate goal of reducing GHG emissions 80 percent under 1990 levels by 2050 that is based on scientifically established levels needed in the U.S.A to limit global warming below 2 degrees Celsius – the warming threshold at

which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. Assembly Bill 197 (AB 197) (September 8, 2016) and Senate Bill 32 (SB 32) (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in Executive Order B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-29-15

The California Governor issued Executive Order B-29-15 on April 1, 2015 and directed the State Water Resources Control Board to impose restrictions to achieve a statewide 25% reduction in urban water usage and directed the Department of Water Resources to replace 50 million square feet of lawn with drought tolerant landscaping through an update to the State's Model Water Efficient Landscape Ordinance. The Ordinance also requires installation of more efficient irrigation systems, promotion of greywater usage and onsite stormwater capture, and limits the turf planted in new residential landscapes to 25 percent of the total area and restricts turf from being planted in median strips or in parkways unless the parkway is next to a parking strip and a flat surface is required to enter and exit vehicles. Executive Order B-29-15 would reduce GHG emissions associated with the energy used to transport and filter water.

Assembly Bill 341 and Senate Bills 939 and 1374

Senate Bill 939 (SB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills. Assembly Bill 341 (AB 341) was adopted in 2011 and builds upon the waste reduction measures of SB 939 and 1374, and set a new target of a 75 percent reduction in solid waste generated by the year 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 in order to support the State's climate action goals to reduce GHG emissions from transportation sources through coordinated regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each Metropolitan Planning Organizations (MPO) within the State. It was up to each MPO to adopt a sustainable communities strategy (SCS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP) to meet CARB's 2020 and 2035 GHG emission reduction targets. These reduction targets are required to be updated every eight years and the most current targets are detailed at: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets, which provides GHG emissions reduction targets for SCAG of 8 percent by 2020 and 19 percent by 2035.

The Connect SoCal (SCAG, 2020) provides a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal include new initiatives of land use, transportation and technology to meet the 2035 new 19 percent GHG emission reduction target for 2035. CARB is also charged with reviewing SCAG's RTP/SCS for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS. However, new provisions of CEQA incentivize, through streamlining and other

provisions, qualified projects that are consistent with an approved SCS and categorized as "transit priority projects."

Assembly Bill 1109

AB 1109 requires reductions in energy usage for lighting and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Executive Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

In 2009 CARB approved the proposed regulation to implement the LCFS. The standard was challenged in the courts, but has been in effect since 2011 and was re-approved by the CARB in 2015. The LCFS is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The LCFS is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet annually. Reformulated gasoline mixed with corn-derived ethanol and low-sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel. Compressed natural gas and liquefied natural gas also may be low-carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles, are also considered as low-carbon fuels.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA guidelines that addresses GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate Action Plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project

complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.

- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports must specifically consider a project's energy use and energy efficiency potential.

Assembly Bill 32

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and utilize best management practices that are technologically feasible and cost effective.

In 2007 CARB released the calculated Year 1990 GHG emissions of 431 $MMTCO_2e$. The 2020 target of 431 $MMTCO_2e$ requires the reduction of 78 $MMTCO_2e$, or approximately 16 percent from the State's projected 2020 business as usual emissions of 509 $MMTCO_2e$ (CARB, 2014). Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO_2 in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources, all of which became enforceable on or before January 1, 2010.

CARB's Scoping Plan that was adopted in 2009, proposes a variety of measures including: strengthening energy efficiency and building standards; targeted fees on water and energy use; a market-based cap-and-trade system; achieving a 33 percent renewable energy mix; and a fee regulation to fund the program. The 2014 update to the Scoping Plan identifies strategies moving beyond the 2020 targets to the year 2050.

The Cap-and-Trade Program established under the Scoping Plan sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, and has established a market for long-term investment in energy efficiency and cleaner fuels since 2012.

Executive Order S-3-05

In 2005 the California Governor issued Executive Order S 3-05, GHG Emission, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels;
- 2020: Reduce greenhouse gas emissions to 1990 levels;
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs. The State achieved its first goal of reducing GHG emissions to 2000 levels by 2010.

Assembly Bill 1493

AB 1493 or the Pavley Bill sets tailpipe GHG emissions limits for passenger vehicles in California as well as fuel economy standards and is described in more detail above in Section 5.1 under Energy Conservation Management.

6.4 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Air Basin. To that end, as a regional agency, the SCAQMD works directly with SCAG, county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. The SCAQMD is also responsible for GHG emissions for projects where it is the lead agency. However, for other projects in the Air Basin where it is not the lead agency, it is limited to providing resources to other lead agencies in order to assist them in determining GHG emission thresholds and GHG reduction measures. In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a Working Group, which is described below.

<u>SCAQMD Working Group</u>

Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that either provides a quantitative annual thresholds of 3,500 $MTCO_2e$ for residential uses, 1,400 $MTCO_2e$ for commercial uses, 3,000 $MTCO_2e$ for mixed uses, and 10,000 $MTCO_2e$ for industrial uses.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Connect SoCal and 2019 FTIP addresses regional development and growth forecasts. Although the Connect SoCal and 2019 FTIP are primarily planning documents for future transportation projects a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Connect SoCal, 2019FTIP, and AQMP are based on projections originating within the City and County General Plans.

6.5 Local – County of San Bernardino

Local jurisdictions, such as the County of San Bernardino, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. In accordance with CEQA requirements and the CEQA review process, the County assesses the global climate change potential of new development projects, requires mitigation of potentially significant global climate change impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The *County of San Bernardino Greenhouse Gas Emissions Reduction Plan* (GHG Plan), prepared September, 2011, requires the reduction of 159,423 metric tons of $C0_2$ equivalent emissions ($MTCO_2e$) per year from new development by 2020 as compared to the unmitigated conditions. The *Greenhouse Gas Emissions Development Review Processes* (GHG Review Processes), prepared for the County of San Bernardino, March 2015, provides project level direction on how the County plans to achieve the reduction in GHG Emissions.

7.0 ATMOSPHERIC SETTING

7.1 South Coast Air Basin

The project site is located within western San Bernardino County, which is part of the South Coast Air Basin (Air Basin) that includes the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties and all of Orange County. The Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

7.2 Local Climate

The climate of western San Bernardino County, technically called an interior valley subclimate of the Southern California's Mediterranean-type climate, is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern. The clouds and fog that form along the area's coastline rarely extend as far inland as western San Bernardino County. When morning clouds and fog form, they typically burn off quickly after sunrise. The most important weather pattern from an air quality perspective is associated with the warm season airflow across the densely populated areas located west of the project site. This airflow brings polluted air into western San Bernardino County late in the afternoon. This transport pattern creates unhealthful air quality that may extend to the project site particularly during the summer months.

Winds are an important parameter in characterizing the air quality environment of a project site because they both determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in western San Bernardino County are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but as discussed above, these coastal winds carry significant amounts of industrial and automobile air pollutants from the densely urbanized western portion of the Air Basin into the interior valleys which become trapped by the mountains that border the eastern and northern edges of the Air Basin.

In the summer, strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the Air Basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the Fontana Kaiser Station, which is the nearest weather station to the project site with historical data is shown below in Table F. Table F shows that July is typically the warmest month and January is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table F – Monthly Climate Data

Month	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)	Average Total Precipitation (inches)
January	66.8	44.0	3.65
February	69.4	45.0	2.85
March	70.1	46.3	2.80
April	74.5	48.4	1.13
May	79.9	52.6	0.26
June	86.7	56.6	0.04
July	95.0	62.2	0.01
August	94.4	62.9	0.11
September	91.3	61.3	0.34
October	83.0	55.4	0.34
November	73.6	48.5	1.72
December	68.3	44.4	2.07
Annual	**79.4**	**52.3**	**15.32**

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3120

7.3 Monitored Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the Air Basin. Estimates of the existing emissions in the Air Basin provided in the 2012 AQMP, indicate that collectively, mobile sources account for 59 percent of the VOC, 88 percent of the NOx emissions and 40 percent of directly emitted PM2.5, with another 10 percent of PM2.5 from road dust. The 2016 AQMP found that since 2012 AQMP projections were made stationary source VOC emissions have decreased by approximately 12 percent, but mobile VOC emissions have increased by 5 percent. The percentage of NOx emissions remain unchanged between the 2012 and 2016 projections.

SCAQMD has divided the Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in Air Monitoring Area 34, Central San Bernardino Valley, which covers the area from Fontana to the base of the San Bernardino Mountains. The nearest air monitoring station to the project site is the Fontana-Arrow Highway Monitoring Station (Fontana Station) that is located approximately five miles northwest of the project site at 14360 Arrow Boulevard, Fontana. It should be noted that due to the air monitoring station's distance from the project site, recorded air pollution levels at the Fontana Station reflect with varying degrees of accuracy, local air quality conditions at the project site. The monitoring data is presented in Table G and shows the most recent three years of monitoring data available from CARB. CO measurements have not been provided, since CO is currently in attainment in the Air Basin and monitoring of CO within the Air Basin ended on March 31, 2013.

Table G – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year[1] 2018	2019	2020
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.141	0.124	0.151
Days > CAAQS (0.09 ppm)	**38**	**41**	**56**
Maximum 8-Hour Concentration (ppm)	0.111	0.109	0.111
Days > NAAQS (0.070 ppm)	**69**	**67**	**89**
Days > CAAQs (0.070 ppm)	**72**	**71**	**91**
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppb)	63.0	76.1	66.4
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour National Measurement (ug/m^3)	64.1	88.8	76.8
Days > NAAQS (150 ug/m^3)	0	0	0
Days > CAAQS (50 ug/m^3)	**8**	**11**	**6**
Annual Arithmetic Mean (AAM) (ug/m^3)	34.6	35.3	37.2
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	**Yes**	**Yes**	**Yes**
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour California Measurement (ug/m^3)	29.2	81.3	57.6
Days > NAAQS (35 ug/m^3)	0	**3**	**4**
Annual Arithmetic Mean (AAM) (ug/m^3)	11.1	11.3	12.7
Annual > NAAQS and CAAQS (12 ug/m^3)	No	No	**Yes**

Notes: Exceedances are listed in **bold.** CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.
[1] Data obtained from the Fontana Station.
Source: http://www.arb.ca.gov/adam/

Ozone

During the last three years, the State 1-hour concentration standard for ozone has been exceeded between 38 and 56 days each year at the Fontana Station. The State 8-hour ozone standard has been exceeded between 71 and 91 days each year over the last three years at the Fontana Station. The Federal 8-hour ozone standard has been exceeded between 67 and 89 days each year over the last three years at the Fontana Station. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the ozone levels experienced at this monitoring station, with the more significant areas being those directly upwind.

Nitrogen Dioxide

The Fontana Station did not record an exceedance of either the Federal or State 1-hour NO_2 standards for the last three years.

Particulate Matter

The State 24-hour concentration standard for PM10 has been exceeded between 6 and 11 days each year over the past three years at the Fontana Station. Over the past three years the Federal 24-hour standard for PM10 has not been exceeded at the Fontana Station. The annual PM10 concentration at the Fontana Station has exceeded the State standard for the past three years and has not exceeded the Federal standard for the past three years.

Over the past three years the federal 24-hour concentration standard for PM2.5 has been exceeded between 0 and 4 days each year over the past three years at the Fontana Station. The annual PM2.5 concentrations at the Fontana Station has only exceeded the State and Federal standards in one of the past three years. There does not appear to be a noticeable trend for PM10 or PM2.5 in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

7.4 Toxic Air Contaminant Levels in the Air Basin

In order to determine the Air Basin-wide risks associated with major airborne carcinogens, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES) studies. According to the SCAQMD's MATES-IV study, the project site has an estimated cancer risk of 727 per million persons chance of cancer. In comparison, the average cancer risk for the Air Basin is 991 per million persons, which is based on the use of age-sensitivity factors detailed in the OEHHA Guidelines (OEHHA, 2015).

In order to provide a perspective of risk, it is often estimated that the incidence in cancer over a lifetime for the U.S. population ranges between 1 in 3 to 4 and 1 in 3, or a risk of about 300,000 per million persons. The MATES-III study referenced a Harvard Report on Cancer Prevention, which estimated that of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures that includes hazardous air pollutants.

8.0 MODELING PARAMETERS AND ASSUMPTIONS

8.1 CalEEMod Model Input Parameters

The criteria air pollution and GHG emissions impacts created by the proposed project have been analyzed through use of CalEEMod Version 2020.4.0. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the South Coast Air Basin portion of San Bernardino County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The project characteristics in the CalEEMod model were set to a project location of the South Coast Air Basin portion of San Bernardino County, a Climate Zone of 10, utility company of Southern California Edison, and project opening year of 2023. In addition, the EMFAC off-model adjustment factors for gasoline light duty vehicle to account for the SAFE Vehicle rule was selected in the CalEEMod model run.

Land Use Parameters

The proposed project consists of development of an approximately 259,481 square foot high-cube warehouse building that would cover approximately 45 percent of the project site and 15 percent of the project site would be landscaped. A total of 131 passenger vehicle stalls and 85 trailer stalls would be included to the north and east of the proposed building. The paved area would cover approximately 5.29 acres of the 13.23 acre project site. The proposed project's land use parameters that were entered into the CalEEMod model are shown in Table H.

Table H – CalEEMod Land Use Parameters

Proposed Land Use	Land Use Subtype in CalEEMod	Land Use Size[1]	Lot Acreage[2]	Building/Paving[3] (square feet)
Unrefrigerated Warehouse	Unrefrigerated Warehouse No Rail	259.481 TSF	7.94	259,481
Paved Area (Truck Loading Area, Driveways, and Parking Lots)	Parking Lot	5.29 AC	5.29	230,432

Notes:
[1] TSF = Thousand Square Feet; AC = Acre
[2] Lot acreage calculated based on the total project site of 13.23-acres.
[3] Building/Paving square feet represent area where architectural coatings will be applied. Paved area based on CalEEMod default values.

Construction Parameters

Construction of the proposed project is anticipated to start around March 2022 and would be completed in 16 months. The construction-related GHG emissions were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The phases of construction activities that have been analyzed are detailed below and include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building construction, 5) Paving; and 6) Application of architectural coatings.

The CalEEMod model provides the selection of "mitigation" to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this "mitigation" may represent regulatory requirements. This includes the required to adherence to SCAQMD

Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Demolition

The demolition phase would consist of demolishing the existing two single-family residences on the northwest and southwest corner of the project site, and three commercial/industrial buildings, that total approximate 16,800 square feet of building space. In addition, the existing parking lots, driveways and truck storage area on the project site would also need to be demolished, which has been estimated to cover 117,000 square feet of the project site. The pavement was assumed to be an average of 4-inches thick and weigh 145 pounds per square foot, which results in 2,828 tons of pavement that would be removed from the project site. For the existing structures to be demolished, CalEEMod utilizes a factor of 0.046 tons of debris of building material per building square foot. This results in 773 tons of debris that would be generated from demolition of the existing structures. Therefore, the combined demolition of the structures and pavement area would require the removal of 3,600 tons of debris that would be exported from the site and would require a total of 356 haul truck trips (average 17.8 haul truck trips per day over duration of demolition phase).

The demolition phase has been modeled as starting in March 2022 and would occur over four weeks, which is based on the CalEEMod default timing. The demolition activities would require 15 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the demolition phase. The onsite equipment would consist of one concrete/industrial saw, three excavators, and two rubber-tired dozers, which is based on the CalEEMod default equipment mix. The mitigation of water all exposed areas three times per day was chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Site Preparation

The site preparation phase would consist of removing any vegetation, tree stumps, and stones onsite prior to grading. The site preparation phase is anticipated to start after completion of the demolition phase and was modeled as occurring over two weeks, which is based on the CalEEMod default timing. The site preparation activities would require 18 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the site preparation phase. The onsite equipment would consist of three rubber-tired dozers, and four crawler tractors, which replaced the CalEEMod default value of four of either tractors, loaders, or backhoes, in order to provide a more conservative analysis. The mitigation of water all exposed areas three times per day was chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Grading

The grading phase would occur after completion of the site preparation phase and was modeled as occurring over six weeks, which is based on the CalEEMod default timing. The grading activities are anticipated to be balanced, which would not require any dirt to be imported or exported from the project site. The onsite equipment would consist of two excavators, one grader, one rubber-tired dozer, two scrapers, and two crawler tractors, which replaced the CalEEMod default value of two of either tractors, loaders, or backhoes, in order to provide a more conservative analysis. The mitigation of water all exposed areas three times per day was chosen in order to account for the fugitive dust reduction that would occur

through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Building Construction

The building construction would occur after the completion of the grading phase and was modeled as occurring over 14 months, which is based on the CalEEMod default timing. The building construction phase would generate 206 worker trips and 80 vendor trips per day. The onsite equipment would consist of the simultaneous operation of one crane, three forklifts, one generator, one welder, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix.

Paving

The paving phase would consist of paving the truck loading area, driveways, and parking lots. The paving phase was modeled as occurring concurrently with the final six months of the building construction phase. The paving phase would generate 15 worker trips per day. The onsite equipment would consist of the simultaneous operation of two pavers, two paving equipment, and two rollers, which is based on the CalEEMod default equipment mix.

Architectural Coating

The application of architectural coatings was modeled as occurring concurrently with the final six months of the building construction phase and concurrent with the paving phase. The architectural coating phase was modeled based on covering 389,222 square feet of non-residential interior area, 129,741 square feet of non-residential exterior area, and 13,826 square feet of parking area. The architectural coating phase would generate 41 worker trips per day. The onsite equipment would consist of one air compressor, which is based on the CalEEMod default equipment mix.

Operational Emissions Modeling

The operations-related criteria air pollutant emissions and GHG emissions created by the proposed project have been analyzed through use of the CalEEMod model. The proposed project was analyzed in the CalEEMod model based on the land use parameters provided above and the parameters entered for each operational emission source is described below.

Mobile Sources

Mobile sources include emissions the additional vehicle miles generated from the proposed project. The daily vehicle trip rates associated with the proposed project have been obtained from *Alder Avenue/ Slover Avenue Industrial Project Trip Generation and Vehicle Miles Traveled (VMT) Screening Analysis* (Trip Generation Analysis), prepared by EPD Solutions, Inc., November 18, 2021. The Trip Generation Analysis found that the proposed project would generate a total of 364 daily trips, which would consist of the following breakdown: 251 passenger cars, 25 2-axle trucks, 20 3-axle trucks, and 68 4+ axle trucks.

According to *Review of SCAQMD Staff Comments and Testimony on Warehouse Projects*, prepared by Southern California Leadership Council, March 14, 2014, SCAQMD requires that truck trip length should be set to 40 miles in CalEEMod. In order to account for the longer truck trip length in CalEEMod, the 75 daily truck trips were analyzed under the "Parking Lot" land use because the parking lot use generates no vehicle trips on its own (the row's default are "zeros") so it was an available placeholder allowing analysis solely of the project's trucks without mixing the trucks with any other trip-generating use. The passenger

car trip lengths were based on the default trip lengths. The vehicle trips rate utilized in the CalEEMod model are provided in Table I.

Table I – Inventory of Vehicle Trips During Operation of Proposed Project

			Daily Trip Generation Rates	
Land Use Type in CalEEMod	Vehicle Type	Land Use Size[1]	Trips Rates[2]	Total Daily Trips
Unrefrigerated Warehouse No Rail	Passenger Cars	259.481 TSF	1.11 per TSF	251
Parking Lot	Trucks	5.29 AC	14.18 per AC	113

Notes:
[1] TSF = Thousand Square Foot; AC = Acre.
[2] Daily Trip rates obtained from the Trip Generation Analysis (EPD Solutions, Inc., 2021).

In order to account for the four 2-axle trucks, four 3-axle trucks, and 12 4+-axle trucks trips generated by the proposed project, the vehicle mixes utilized in the CalEEMod model for the Parking Lot land use were adjusted to match the truck generation rates provided in the Traffic Analysis. In addition, the vehicle mix for the Unrefrigerated Warehouse was also adjusted to remove the truck trips from this land use, since all truck trips generated from the proposed project were analyzed under the Parking Lot land use. The vehicle mixes utilized in the CalEEMod model are shown in Table J. No other changes were made to the CalEEMod default mobile source parameters.

Table J – Fleet Mix During Operation of Proposed Project

Land Use	LDA	LDT1	LDT2	MDV	LHD2	MHD	HHD	MCY
Unrefrigerated Warehouse No Rail – Autos	0.579	0.059	0.185	0.150	0	0	0	0.027
Parking Lot - Trucks	0	0	0	0	0.221	0.177	0.602	0

Notes:
LDA = Light Duty Auto; LDT1 = Light-Duty Trucks (less than 3,750 pounds gross vehicle weight rating [GVWR]); LDT2 = Light-Duty Trucks (3,751 to 6,000 pounds GVWR); MDV = Medium-Duty Trucks (6,000 to 8,500 pounds GVWR); LHD1 = Light-Heavy-Duty Trucks 1 (8,501 to 10,000 pounds GVWR); LHD2 = Light-Heavy-Duty Trucks 2 (GVWR 10,001 to 14,000 pounds); MHD = Medium-Heavy-Duty Trucks (GVWR 19,501 to 33,000 pounds); HHD = Heavy-Heavy-Duty Trucks (GVWR 33,000+ pounds); and MCY = motorcycles.
[1] The Truck fleet mix was based on the Truck Fleet Mix provided in the VMT Memo (Urban Crossroads, 2021), with 2-axle trucks analyzed as LHD2, 3-axle trucks analyzed as MHD, and 4+-axle trucks analyzed as HHD.
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The CalEEMod model provides the selection of "mitigation" to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this "mitigation" may represent current conditions, such as development that is in close proximity to an existing transit facility, where a project built at such location would create less vehicle trips and associated emissions than a project that was not built in close proximity to an existing transit facility. The mobile source emissions analysis for the project included the CalEEMod "mitigation" of improved pedestrian network on project site and connecting offsite and increase transit accessibility with 0.06 mile to the nearest transit to account for the existing Omnitrans Laurel at Slover Transit Bus Stop, that is located as near as 300 feet east of the project site.

Area Sources

Area sources include emissions from consumer products, landscape equipment, and architectural coatings. The area source emissions were based on the on-going use of the proposed project in the CalEEMod model. No changes were made to the default area source parameters in the CalEEMod model.

Energy Usage

Energy usage includes emissions from electricity and natural gas used onsite. The energy usage was based on the ongoing use of the proposed project in the CalEEMod Model. No changes were made to the default energy usage parameters in the CalEEMod model.

Solid Waste

Waste includes the GHG emissions associated with the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. The analysis was based on the default CalEEMod waste generation rate of 244 tons of solid waste per year from the proposed project. No changes were made to the default solid waste parameters or mitigation measures in the CalEEMod model.

The CalEEMod mitigation of a 50 percent reduction in landfill waste was selected to account for implementation of AB 341 that provides strategies to reduce, recycle or compost solid waste by 75 percent by 2020. Only 50 percent was selected, since AB 341 builds upon the waste reduction measures of SB 939 and 1374 and therefore, it was assumed approximately 25 percent of the waste reduction target has already been accounted for in the CalEEMod model.

Water and Wastewater

Water includes the water used for the interior of the buildings as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. The analysis was based on the default CalEEMod water usage rate of 60,004,750 gallons per year of water use. No changes were made to the default water and wastewater parameters in the CalEEMod model.

The CalEEMod "mitigation" of the use of low flow faucets and toilets and use of smart irrigation system controllers were selected to account for the implementation of the 2019 CCR Title 24 Part 11 (CalGreen) requirements, which lowered the calculated water use for the proposed project to 50,624,500 gallons per year.

Off-Road Equipment

The primary activity that would require the use of off-road equipment would be associated with forklifts unloading/loading of truck deliveries. As detailed above, operation of the proposed project is anticipated to generate 113 daily truck trips. Based on 15 minutes of unloading/loading activities per truck trip, this would result in 28.25 hours of forklift activities per day, which was analyzed in CalEEMod as four forklifts operating 7 hours per day. In order to account for Project Design Feature 1, that restricts the operation of diesel-powered off-road equipment on the project site during long-term operations of the project, the forklifts were analyzed as being powered with compressed natural gas (CNG).

8.2 Energy Use Calculations

The proposed project is anticipated to consume energy during both construction and operation of the proposed project and the parameters utilized to calculate energy use from construction and operation of the proposed project are detailed separately below.

Construction-Related Energy Use

Construction of the proposed project is anticipated to use energy in the forms of petroleum fuel for both off-road equipment as well as from the transport of workers and materials to and from the project site and the calculations for each source are described below.

Off-Road Construction Equipment

The off-road construction equipment fuel usage was calculated through use of the CalEEMod model's default off-road equipment assumptions detailed above in Section 8.1. For each piece of off-road equipment, the fuel usage was calculated through use of the *2017 Off-road Diesel Emission Factors* spreadsheet, prepared by CARB (https://ww3.arb.ca.gov/msei/ordiesel.htm). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table K shows the off-road construction equipment fuel calculations based on the above formula. Table K shows that the off-road equipment utilized during construction of the proposed project would consume 71,940 gallons of fuel.

Table K – Off-Road Equipment and Fuel Consumption from Construction of the Proposed Project

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Demolition						
Concrete/Industrial Saw	1	81	0.73	8	160	543
Excavators	3	158	0.38	8	480	1,488
Rubber Tired Dozers	2	247	0.4	8	320	1,632
Site Preparation						
Rubber Tired Dozers	3	247	0.4	8	240	1,224
Crawler Tractors	4	212	0.43	8	320	1,506
Grading						
Excavators	2	158	0.38	8	480	1,488
Graders	1	187	0.41	8	240	950
Rubber Tired Dozers	1	247	0.4	8	240	1,224
Scrapers	2	367	0.48	8	240	1,224
Crawler Tractors	2	212	0.43	8	480	2,259
Building Construction						
Cranes	1	231	0.29	7	2,100	7,263
Forklifts	3	89	0.2	8	7,200	7,355

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Generator Sets	1	84	0.74	8	2,400	8,562
Tractors/Loaders/Backhoes	3	97	0.37	7	6,300	12,977
Welders	1	46	0.45	8	2,400	2,851
Paving						
Pavers	2	130	0.42	8	2,080	5,863
Paving Equipment	2	132	0.36	8	2,080	5,103
Rollers	2	80	0.38	8	2,080	3,629
Architectural Coating						
Air Compressor	1	78	0.48	6	780	1,676
	Total Off-Road Equipment Fuel Used during Construction (gallons)					**71,940**

Notes:
[1] Based on: 20 days for Demolition, 10 days for Site Preparation, 30 days for Grading; 300 days for Building Construction; 130 days for Paving; and 130 days for Architectural Coating.
Source: CalEEMod Version 2020.4.0 (see Appendix A); CARB, 2017.

On-Road Construction-Related Vehicle Trips

The on-road construction-related vehicle trips fuel usage was calculated through use of the construction vehicle trip assumptions from the CalEEMod model run as detailed above in Section 8.1. The calculated total construction miles were then divided by the fleet average for the South Coast Air Basin miles per gallon rates for the year 2022 calculated through use of the EMFAC2017 model (https://www.arb.ca.gov/emfac/2017/) and the EMFAC2017 model printouts are shown in Appendix B. The worker trips were based on the entire fleet average miles per gallon rate for gasoline powered vehicles and the vendor trips were based on the Heavy-Heavy Duty Truck (HHDT), Medium Duty Vehicle (MDV), and Medium Heavy Duty Vehicle (MHDV) fleet average miles per gallon rate for diesel-powered vehicles. Table L shows the on-road construction vehicle trips modeled in CalEEMod and the fuel usage calculations.

Table L – On-Road Vehicle Trips and Fuel Consumption from Construction of the Proposed Project

Vehicle Trip Types	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase[1]	Fleet Average Miles per Gallon[2]	Fuel Used (gallons)
Demolition						
Worker Trips	15	14.7	221	4,410	26.0	170
Vendor Truck Trips	6	6.9	41	828	8.2	101
Haul Truck Trips	17.8	20	356	7,120	8.2	866
Site Preparation						
Worker Trips	18	14.7	265	2,646	26.0	102
Vendor Truck Trips	6	6.9	41	414	8.2	50
Grading						
Worker Trips	20	14.7	294	8,820	26.0	339
Vendor Truck Trips	6	6.9	41	1,242	8.2	151
Building Construction						
Worker Trips	206	14.7	3,028	908,460	26.0	34,956
Vendor Truck Trips	80	6.9	552	165,600	8.2	20,134
Paving						

Worker Trips	15	14.7	221	28,665	26.0	1,103
Architectural Coating						
Worker Trips	41	6.9	603	78,351	26.0	3,015
		Total Fuel Used from On-Road Construction Vehicles (gallons)				**60,987**

Notes:
[1] Based on: 20 days for Demolition, 10 days for Site Preparation, 30 days for Grading; 300 days for Building Construction; 130 days for Paving; and 130 days for Architectural Coating.
[2] From EMFAC 2017 model (see Appendix B). Worker Trips based on entire fleet of gasoline vehicles and Vendor Trips based on only truck portion fleet of diesel vehicles.
Source: CalEEMod Version 2020.4.0; CARB, 2018.

Table L shows that the on-road construction-related vehicle trips would consume 60,987 gallons of fuel and as detailed above, Table K shows that the off-road construction equipment would consume 71,940 gallons of fuel. This would result in the total consumption of 132,926 gallons of petroleum fuel from construction of the proposed project.

Operations-Related Energy Use

The operation of the proposed project is anticipated to use energy in the forms of petroleum fuel, electricity, and natural gas, and the calculations for each source are described below.

Operational Petroleum Fuel

The on-road operations-related vehicle trips fuel usage was calculated through use of the total annual vehicle miles traveled assumptions from the CalEEMod model run as detailed above in Section 8.1, which found that operation of the proposed project would generate 818,435 vehicle miles traveled per year from autos and would generate 1,248,255 vehicle miles traveled per year from trucks. The calculated total operational miles were then divided by the South Coast Air Basin fleet average rates of 26.0 miles per gallon for automobiles and the fleet average rate of 8.2 miles per gallon for trucks, which was calculated through use of the EMFAC2017 model and based on the year 2022. The EMFAC2017 model printouts are shown in Appendix B. Based on the above calculation methodology, the operation of automobiles would consume 31,492 gallons per year and from trucks would consume 151,764 gallons per year. The total petroleum use from operation of the proposed project would be 183,256 gallons per year.

Operational Electricity Use

The operations-related electricity usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that depicts the electricity use from each land use that are shown below in kilo-watt hours (kWh) per year:

- Parking Lot (Truck Loading Area, Driveways, and Parking Lots) – 80,651 kWh/year
- Unrefrigerated Warehouse – 601,996 kWh/year

Based on the above, it is anticipated that the proposed project would utilize 682,647 kWh per year of electricity.

Operational Natural Gas Use

The operations-related natural gas usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that depicts the natural gas use from each land use that are shown below in kilo British Thermal Units (kBTU) per year (CalEEMod land use shown in brackets):

- Parking Lot (Truck Loading Area, Driveways, and Parking Lots) – 0 kBTU/year
- Unrefrigerated Warehouse – 521,557 kBTU/year

Based on the above, it is anticipated that the proposed project will use 485,396 kBTU per year, which is equivalent to 485 mega-British Thermal units (MBTU) per year of natural gas.

8.3 Toxic Air Contaminant Emissions Modeling

The dispersion modeling utilized for analyzing the TAC emissions in this analysis has been based on the recommended methodology described in *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel idling Emissions for CEQA Air Quality Analysis* (SCAQMD HRA Guidance), prepared by SCAQMD, 2003, *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA Guidelines), prepared by Office of Environmental Health Hazard, February 2015, and *Risk Assessment Procedures for Rules 1401, 1401.1 and 212* (SCAQMD Risk Assessment Procedures), prepared by SCAQMD, September 1, 2017. Important issues that affect the dispersion modeling include the following: 1) Model Selection, 2) Source Treatment, 3) Meteorological Data, and 4) Receptor Grid. Each of these issues is addressed below.

Model Selection

The AERMOD View Version 10.2.1 Model was used for all dispersion modeling. Key dispersion modeling options selected included the regulatory default options and urban modeling option for San Bernardino County with a population of 2,035,210. Flagpole receptor height was set to 0 meters, which is based on SCAQMD recommended modeling parameters. AERMAP (the terrain pre-processor for AERMOD) was run with a USGS 7.5-meter map of Fontana that covers the local project area.

Meteorological Data

Meteorological data from the SCAQMD's Perris Monitoring Site was selected for this modeling application. The SCAQMD's meteorological data is provided at: https://www.aqmd.gov/home/air-quality/meteorological-data/data-for-aermod. Five full years of meteorological data were collected at the Fontana Station by the SCAQMD for 2011, 2012, 2013, 2015, and 2016. The SCAQMD processed the data for input to the model. An elevation of 367 meters was utilized for the Fontana Station per SCAQMD guidance.

Receptor Grid

The nearest sensitive receptors to the project site are the single-family homes that are located adjacent to the south side of the project site, where the residential structures are located as close as 30 feet south of the project site. The nearest school is Bloomington High School, which is located as near as 330 feet south of the project site. There are also several older residential structures located on all sides of the project site, that are likely currently utilized for non-residential purposes, however since it is unknown if a person is living at these structures, they have also been analyzed in the AERMOD model. Discrete receptors were placed at 12 representative nearby sensitive receptors in the AERMOD model. Figure 3 shows the locations of the sources and receptors modeled in the AERMOD model for TAC emissions.

Building Inputs

In order to account for building downwash (air turbulence caused by wind blowing over the proposed warehouse) attributes associated with the proposed project, the proposed warehouse structure was inputted into the AERMOD model as a polygonal building with a 44-foot height.

EMFAC2017 Model

The truck travel and truck idling emission rates were obtained from the EMFAC2017 model Version 1.0.3. The EMFAC2017 model is the latest emissions inventory model released by CARB that calculates motor vehicle emissions from vehicles operating on roads in California. The EMFAC2017 includes the latest data on California's car and truck fleets and travel activity and also reflects the emissions reductions associated with CARB's recent rulemaking, including on-road diesel fleet rules, Advanced Clean Car Standards, and the Smartway/Phase I Heavy-Duty Vehicle GHG Regulations.

The operational 3-axle and 4+-axle truck trips were modeled in the EMFAC2017 model through use of the Truck 2 Vehicle Category that covers all truck classifications over 14,000 pounds. The operational 2-axle (small truck) trips were modeled in the EMFAC2017 model through use of the Truck 1 Vehicle Category that covers all truck classifications between 8,500 and 14,000 pounds. Since vehicle emission factors are dependent on vehicle speed, emission factors were obtained for 10 and 40 miles per hour and idling rates. The EMFAC2017 model run printout is provided in Appendix B.

The cancer risk analysis is based on a 30-year analysis period. Therefore, the analysis period was segmented into three age sensitivity time periods, consistent with the cancer risk estimation methodology. The DPM PM10 truck running emission rates utilized in this assessment are shown in Table M; the DPM PM10 truck idling emission rates utilized in this assessment are shown in Table N.

Table M – EMFAC2017 Diesel Truck Running PM10 Emission Rates

Vehicle Class	Speed (mph)	EMFAC2017 PM10 Running Emissions Rates (grams/mile)		
		2023 to 2025	2026 to 2040	2041 to 2052
Truck 1	10	0.0451	0.0268	0.0168
	40	0.0158	0.0107	0.0077
Truck 2	10	0.0093	0.0083	0.0078
	40	0.0089	0.0086	0.0084

Source: EMFAC2017 version 1.0.3.

Table N – EMFAC2017 Diesel Truck Idling PM10 Emission Rates

Vehicle Class	EMFAC2017 PM10 Idling Emissions Rates (grams/hour)		
	2023 to 2025	2026 to 2040	2041 to 2052
Truck 1	0.792	0.792	0.797
Truck 2	0.015	0.011	0.010

Source: EMFAC2017 version 1.0.3.

TAC Emission Sources

Operational DPM emissions would be generated from diesel truck running and idling emissions. Project Design Feature 1 requires all off-road equipment used during operation of the project, including forklifts, are restricted from being diesel-powered. As such, no DPM emissions would be created from off-road equipment during operation of the proposed project.

Operational Truck Travel

As detailed above in Section 8.1 and in the Trip Generation Analysis (EPD Solutions, Inc., 2021), the operation of the proposed project would generate 25 2-axle trucks, 20 3-axle trucks, and 68 4+ axle daily

truck trips. The 25 2-axle truck trips were analyzed based on the Truck 1 and the 88 3-axle and 4+-axle trucks were analyzed based on the Truck 2 emission rates from the EMFAC2017 model. The project-related truck emissions have been analyzed separately for truck travel and truck idling that utilized emission rates from the EMFAC model.

Since the Trip Generation Analysis did not include any truck trip distribution information, it has been assumed that 50 percent of the truck trips would travel west on Slover Avenue and 50 percent would travel east on Slover Avenue, since the project site is approximately equidistant between the ramps on Interstate 10 at Sierra Avenue and Cedar Avenue. For the three project driveways, it was assumed that one third of the truck trips would utilize each driveway and each truck would travel to the center of the loading dock area.

The emission rates utilized in the AERMOD model were calculated by converting the emissions created for one truck to grams per second and then calculating the time it takes to travel the road length and multiplying this time by the per day and then dividing by 24 hours. The calculated emission rates are shown in Table O. The diesel truck line volume source truck routes were modeled with a 6-foot height and 12-foot width for the onsite driveways and Alder Avenue and a 40-foot width on Slover Avenue.

Table O – AERMOD Model Operational DPM Truck Travel Emissions Sources

Source ID	Description	Daily Truck Trips[1]	Length of Truck Route (meters)	DPM Emission Rates (grams/second)		
				2023-2025	2026-2040	2041-2052
	Onsite Roads					
DW1	2-axle Truck Trips	8	143	3.88E-07	2.30E-07	1.44E-07
	3-axle and 4+-axle Truck Trips	29		2.82E-07	2.51E-07	2.36E-07
	Project Driveway 1 (Alder Avenue)	**38**		**6.70E-07**	**4.82E-07**	**3.81E-07**
DW2	2-axle Truck Trips	8	80	2.15E-07	1.28E-07	8.01E-08
	3-axle and 4+-axle Truck Trips	29		1.57E-07	1.40E-07	1.31E-07
	Project Driveway 2 (Slover Ave West)	38		**3.72E-07**	**2.68E-07**	2.11E-07
DW3	2-axle Truck Trips	8	171	4.61E-07	2.74E-07	1.71E-07
	3-axle and 4+-axle Truck Trips	29		3.35E-07	2.99E-07	2.81E-07
	Project Driveway 3 (Slover Ave East)	**38**		**7.96E-07**	**5.73E-07**	**4.53E-07**
	Offsite Roads					
ALDER	2-axle Truck Trips	8	53	5.00E-08	3.38E-08	2.42E-08
	3-axle and 4+-axle Truck Trips	29		9.86E-08	9.57E-08	9.38E-08
	DW 1 to Slover Ave	**38**		**1.49E-07**	**1.30E-07**	**1.18E-07**
SLOVER	2-axle Truck Trips	13	1191	1.69E-06	1.15E-06	8.20E-07
	3-axle and 4+-axle Truck Trips	44		3.34E-06	3.24E-06	3.18E-06
	Seaton Ave	57		**5.03E-06**	**4.39E-06**	**4.00E-06**

Notes:
[1] Daily truck trips represent one-way trips (i.e., entering the project site or leaving the project site equal one trip).
Source: Vista Environmental; EMFAC2017.

Onsite Truck Idling

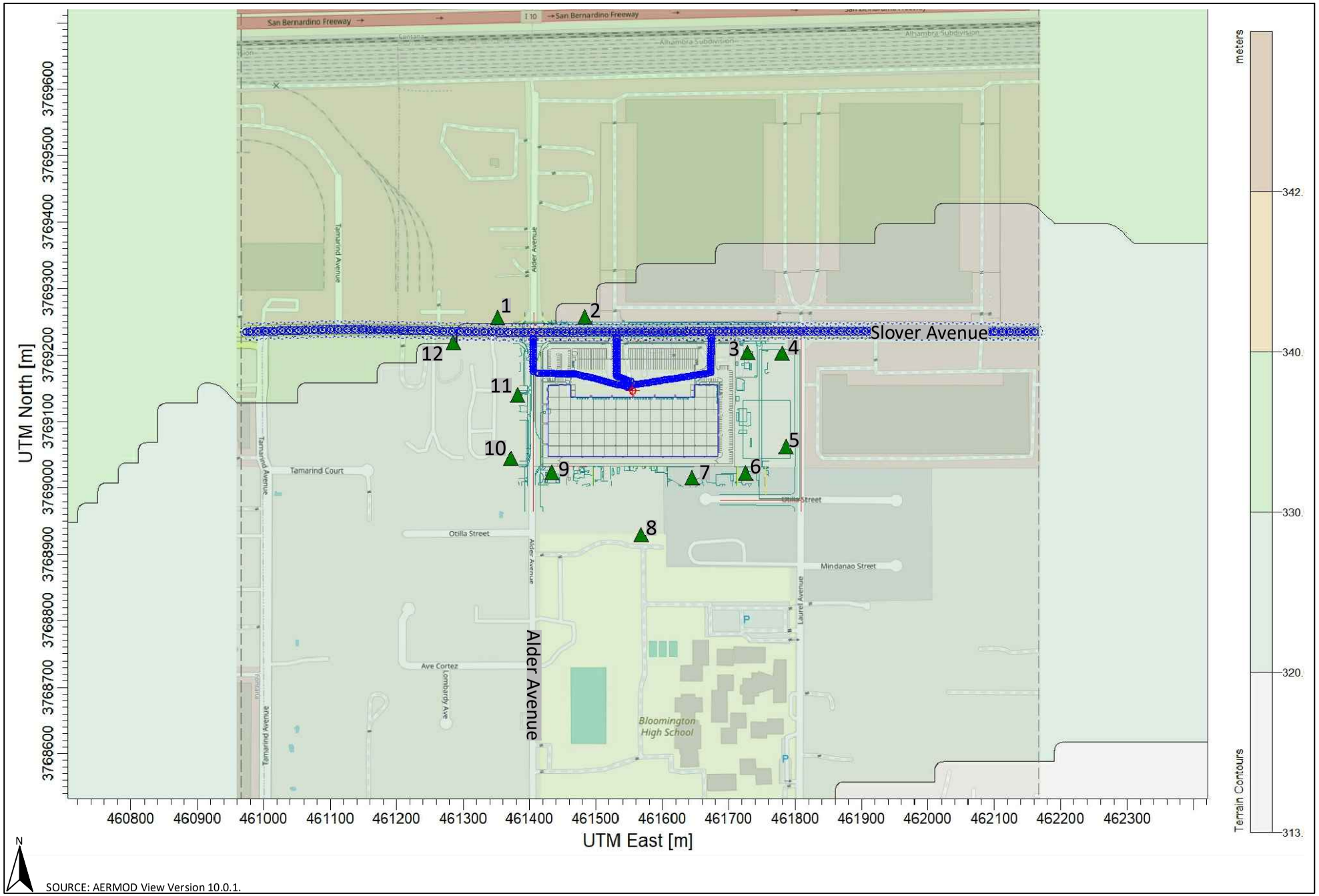
The onsite diesel truck idling emissions were modeled as one point source located in the center of the loading area. The analysis was based on each truck delivery idling on the project site for 15 minutes or 5 minutes for arriving to the loading area, 5 minutes for leaving the loading area, and 5 minutes for queueing activities at the loading area. The 5-minute period is based on Section 2485 of the California Code of Regulations that limits commercial truck idling to 5 minutes at any location.

The idling point source was modeled in the AERMOD model with a 12.6-foot height, a 0.1-meter diameter, a velocity of 50 meters per second, and a temperature of 366°K. The idling point source emission rates entered into the AERMOD model are shown in Table P. The idling source emissions were determined by multiplying 15 minutes by the daily truck operations and dividing it by 24 hours in order to determine the percent of daily idling time. The daily idling time was then multiplied by the EMFAC2017 emissions rates that are detailed above and were converted to grams per second.

Table P – AERMOD Model Operational DPM Truck Idling Emissions Sources

Source ID	Description	Daily Truck Deliveries[1]	DPM Emission Rates (grams/second)		
			2023-2025	2026-2040	2041-2052
IDLING	2-axle Truck Trips	13	2.86E-05	2.87E-05	2.88E-05
	3-axle and 4+-axle Truck Trips	44	1.89E-06	1.46E-06	1.28E-06
	Idling Total	**57**	**3.05E-05**	**3.01E-05**	**3.01E-05**

Notes:
[1] Each daily truck delivery represent two trips (i.e., one entering the project site and one leaving the project site).
Source: Vista Environmental; EMFAC2017.



SOURCE: AERMOD View Version 10.0.1.

VISTA ENVIRONMENTAL

Figure 3
AERMOD Model Sources and Receptors Placement

9.0 THRESHOLDS OF SIGNIFICANCE

9.1 Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the Air Basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table Q.

Table Q – SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance

	Pollutant Emissions (pounds/day)						
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**Lead**
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

9.2 Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. As detailed above in Section 7.3, the project site is located in Monitoring Area 34, which covers the Central San Bernardino Valley.

The Look-Up Tables include site acreage sizes of 1-acre, 2-acres and 5-acres. The *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, prepared by SCAQMD, 2015, provides guidance on how to determine the appropriate site acreage size to utilize for a project. The Fact Sheet details the site acreage should be based on the maximum number of acres disturbed on the peak day of construction that is calculated on the construction equipment list utilized in the CalEEMod model, where crawler tractors, graders, and rubber-tired dozers are all assumed to disturb 0.5-acre in an 8-hour day and scrapers are assumed to disturb 1.0-acre in an 8-hour day. It should be noted that the methodology in the Fact Sheet was developed from the CalEEMod User Guide Appendix A, page 9, where the same acres disturbed per equipment type is detailed and is utilized in the CalEEMod model in order to determine the acres per day disturbed during site preparation and grading phases.

Table R lists all of the construction equipment modeled in CalEEMod and utilizes the methodology in the Fact Sheet to calculate the acres disturbed per day. As shown in Table R, the maximum disturbed per day would occur during the grading phase when 4-acres would be disturbed. As such, the 2-acre and 5-acre project sites shown in the Look-Up Tables were interpolated in order to calculate the 4-acre threshold that has been utilized in this analysis.

Table R – Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day

Construction Activity	Equipment Type	Equipment Quantity	Acres Disturbed per piece of Equipment per Day[1]	Operating Hours per Day	Acres Disturbed per Day
Demolition	Concrete/Industrial Saw	1	0	8	0
	Excavators	3	0	8	0
	Rubber Tired Dozers	2	0.5	8	1.0
		Total Acres Disturbed per Day During Demolition			1.0
Site Preparation	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	4	0.5	8	2.0
		Total Acres Disturbed per Day During Site Preparation			3.5
Grading	Graders	1	0.5	8	0.5
	Excavators	2	0	8	0
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1.0	8	2.0
	Crawler Tractors	2	0.5	8	1.0
		Total Acres Disturbed per Day During Grading			4.0
Building Construction	Cranes	1	0	7	0
	Forklifts	3	0	8	0
	Generator Sets	1	0	8	0
	Tractors/Loaders/Backhoes	3	0	7	0
	Welders	1	0	8	0
		Total Acres Disturbed per Day During Building Construction			0
Paving	Pavers	2	0	8	0
	Paving Equipment	2	0	8	0
	Rollers	2	0	8	0
		Total Acres Disturbed per Day During Paving			0
Architectural Coating	Air Compressor	1	0	6	0
		Total Acres Disturbed per Day During Architectural Coating			0
		Maximum Acres Disturbed during All Construction Activities			**4.0**

Notes:
[1] Based on the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds where crawler tractors, graders, and rubber-tired dozers disturb 0.5-acre in an 8-hour day and scrapers disturb 1.0-acre in an 8-hour day. All other equipment disturb 0 acres per 8-hour day.
Source: CalEEMod Version 2020.4.0; SCAQMD, 2015.

The nearest sensitive receptors to the project site are the single-family homes that are located adjacent to the south side of the project site, where the residential structures are located as close as 30 feet (11 meters) south of the project site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter thresholds.

In order to provide a conservative analysis, the 25-meter threshold was utilized. Table S below shows the LSTs for NO_2, PM10 and PM2.5 for both construction and operational activities.

Table S – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Construction	237	1,488	12	7
Operation	237	1,488	3	2

Notes:
[1] The nearest sensitive receptors to the project site are single-family homes located as close as 30 feet (11 meters) south of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 34, Central San Bernardino Valley.

9.3 Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to toxic air contaminants (TACs), the *Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, (Diesel Analysis) prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the HAP should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

The comprehensive HRA for both construction and operation of the proposed project can be found below in Section 10.4.

9.4 Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

> "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
>
> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

9.5 Energy Conservation

The 2018 amendments and additions to the CEQA Checklist now include an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Appendix F of the 2020 CEQA Statute and Guidelines, states the following:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, the 2018 *Guidelines for the Implementation of the California Environmental Quality Act,* provide the following direction on how to analyze a project's energy consumption:

> "If analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy use that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions, transportation or utilities in the discretion of the lead agency."

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

9.6 Greenhouse Gas Emissions

The County of San Bernardino GHG Emissions Reduction Plan (GHG Plan) requires the reduction of 159,423 metric tons of $C0_2$ equivalent emissions ($MTCO_2e$) per year from new development by 2020 as compared to the unmitigated conditions. The GHG Review Processes, provides project level direction on how the County plans to achieve the reduction in GHG Emissions. The GHG Review Processes determined that projects that do not exceed 3,000 MTC per year will be consistent with the GHG Plan and determined to have a less than significant individual and cumulative impact for GHG emissions. For projects that exceed 3,000 MTC per year of GHG emissions the applicant may choose to either: utilize the Screening Tables, which consist of a list of mitigation measures, rated for their effectiveness and provide mitigation to reach 100 points; or provide a detailed GHG analysis that quantifies project design features or mitigation measures in order to reduce GHG emissions by 31 percent or more over year 2020 unmitigated GHG emissions levels.

10.0 IMPACT ANALYSIS

10.1 CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality, energy, and GHG emissions would occur if the proposed project is determined to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

10.2 Air Quality Compliance

The proposed project would not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP). The following section discusses the proposed project's consistency with the SCAQMD AQMP.

SCAQMD Air Quality Management Plan

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD AQMP. Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of significance discussed above in Section 9.1 or local thresholds of significance discussed above in Section 9.2. The ongoing operation of the proposed project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance discussed above in Section 9.1. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not exceed the air quality standards. Therefore, a less than significant long-term impact would occur and no mitigation would be required.

Therefore, based on the information provided above, the proposed project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in the Connect SoCal and 2019 FTIP. The Connect SoCal is a major planning document for the regional transportation and land use network within Southern California. The Connect SoCal is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The 2019 FTIP provides long-range planning for future transportation improvement projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this project, the County of San Bernardino General Plan's Land Use Plan and more specifically the Bloomington Community Plan defines the assumptions that are represented in AQMP.

The project site is currently designated Community Industrial (IC) in the General Plan and is zoned Limited Industrial (LI). The proposed project is consistent with the current land use designations and would not require a Specific Plan Amendment or zone change. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

Level of Significance

Less than significant impact.

10.3 Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf). In this report the AQMD clearly states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility- wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project- specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the SCAQMD standards.

Construction Emissions

The construction activities for the proposed project are anticipated to include demolition of the existing structures and parking lots on the project sit, site preparation and grading of the 13.23 acre project site, building construction of the warehouse, paving of the truck loading area, driveways, and parking lots, and application of architectural coatings. The construction emissions have been analyzed for both regional and local air quality impacts.

Construction-Related Regional Impacts

The CalEEMod model has been utilized to calculate the construction-related regional emissions from the proposed project and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter daily construction-related criteria pollutant emissions from the proposed project for each phase of construction activities are shown below in Table T and the CalEEMod daily printouts are shown in Appendix A. Since it is possible that building construction, paving, and architectural

coating activities may occur concurrently towards the end of the building construction phase, Table T also shows the combined regional criteria pollutant emissions from building construction (year 2023), paving and architectural coating phases of construction.

Table T – Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Demolition (Year 2022)[1]						
Onsite[2]	2.64	25.72	20.59	0.04	2.74	1.38
Offsite[3]	0.14	2.87	1.35	0.01	0.55	0.17
Total	**2.78**	**28.58**	**21.94**	**0.05**	**3.29**	**1.55**
Site Preparation (Year 2022)[1]						
Onsite[2]	4.48	50.41	20.01	0.06	10.65	6.02
Offsite[3]	0.09	0.33	0.84	<0.00	0.24	0.07
Total	**4.57**	**50.74**	**20.84**	**0.06**	**10.90**	**6.08**
Grading (Year 2022)[1]						
Onsite[2]	4.28	47.51	29.20	0.72	5.91	3.23
Offsite[3]	0.10	0.33	0.92	<0.00	0.27	0.07
Total	**4.37**	**47.84**	**30.12**	**0.72**	**6.18**	**3.30**
Building Construction (Year 2022)						
Onsite	1.71	15.62	16.36	0.03	0.81	0.76
Offsite	1.01	4.26	9.77	0.04	2.87	0.81
Total	**2.72**	**19.87**	**26.14**	**0.07**	**3.68**	**1.57**
Combined Year 2023 Building Construction, Paving, and Architectural Coatings						
Onsite	21.90	25.88	32.64	0.05	1.28	1.20
Offsite	1.12	3.61	11.06	0.04	3.48	0.96
Total	**23.02**	**29.49**	**43.70**	**0.09**	**4.75**	**2.15**
Maximum Daily Construction Emissions	**23.02**	**50.74**	**43.70**	**0.72**	**10.90**	**6.08**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2020.4.0.

Table T shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either demolition, site preparation, grading, or the combined building construction, paving and architectural coatings phases. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM10, and PM2.5. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality.

Table U shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated localized emissions thresholds that have been detailed above in Section 9.2. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table U also shows the combined local criteria pollutant emissions from year 2023 building construction, paving and architectural coating phases of construction.

Table U – Construction-Related Local Criteria Pollutant Emissions

Construction Phase	Pollutant Emissions (pounds/day)[1]			
	NOx	**CO**	**PM10**	**PM2.5**
Demolition[2]	26.08	20.76	2.81	1.40
Site Preparation[2]	50.45	20.11	10.68	6.02
Grading[2]	47.55	29.31	5.94	3.23
Building Construction (Year 2022)	16.15	17.58	1.17	0.86
Combined Building Construction (Year 2023), Paving and Architectural Coatings	27.66	34.24	1.83	1.42
Maximum Daily Construction Emissions	**50.45**	**34.24**	**10.68**	**6.02**
SCAQMD Local Construction Thresholds[3]	**237**	**1,488**	**12**	**7**
Exceeds Threshold?	No	No	No	No

Notes:
[1] The Pollutant Emissions include 100% of the On-Site emissions (off-road equipment and fugitive dust) and 1/8 of the Off-Site emissions (on road trucks and worker vehicles), in order to account for the on-road emissions that occur within a ¼ mile of the project site.
[2] Demolition, Site Preparation and Grading phases based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[3] The nearest offsite sensitive receptors to the project site are single-family homes located as close as 30 feet (11 meters) south of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 34, Central San Bernardino Valley.

The data provided in Table U shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds during either site preparation, grading, or the combined building construction, paving, and architectural coatings phases. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Operational Emissions

The ongoing operation of the proposed project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips, emissions from energy usage, onsite area source emissions, and off-road equipment created from the on-going use of the proposed project. The following section provides an analysis of potential long-term air quality impacts due to regional air quality and local air quality impacts with the on-going operations of the proposed project.

Operations-Related Regional Criteria Pollutant Analysis

The operations-related regional criteria air quality impacts created by the proposed project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter VOC, NOx, CO, SO_2, PM10, and PM2.5 daily emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table V and the CalEEMod daily emissions printouts are shown in Appendix A.

Table V – Operational Regional Criteria Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area Sources[1]	5.90	<0.00	0.03	<0.00	<0.00	<0.00
Energy Usage[2]	0.02	0.14	0.12	<0.00	0.01	0.01
Mobile Sources[3]	1.07	15.55	12.41	0.10	4.93	1.47
Off-Road Equipment[4]	0.05	2.48	32.44	0.01	0.04	0.04
Total Emissions	**7.03**	**18.17**	**45.00**	**0.10**	**4.98**	**1.52**
SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
[4] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 requires all off-road equipment to be non-diesel-powered).
Source: Calculated from CalEEMod Version 2020.4.0.

The data provided in Table V shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

Friant Ranch Case

The operations-related regional criteria air quality impacts In *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (also referred to as "*Friant Ranch*"), the California Supreme Court held that when an EIR concluded that when a project would have significant impacts to air quality impacts, an EIR should "make a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." In order to determine compliance with this Case, the Court developed a multi-part test that includes the following:

1) The air quality discussion shall describe the specific health risks created from each criteria pollutant, including diesel particulate matter.

This Analysis details the specific health risks created from each criteria pollutant above in Section 4.1 and specifically in Table C – State and Federal Criteria Pollutant Standards. In addition, the specific health risks created from diesel particulate matter is detailed above in Section 2.2 of this analysis. As such, this analysis meets the part 1 requirements of the Friant Ranch Case.

2) The analysis shall identify the magnitude of the health risks created from the Project. The Ruling details how to identify the magnitude of the health risks. Specifically, on page 24 of the ruling it states "The Court of Appeal identified several ways in which the EIR could have framed the

analysis so as to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project's impact on the days of nonattainment per year."

The Friant Ranch Case found that an EIR's air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf) (Brief), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes. The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The Brief states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk, it does not necessarily mean anyone will contract cancer as a result of the Project. The Brief also cites the author of the CARB methodology, which reported that a PM2.5 methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NOX or VOC emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

On the other hand, for extremely large regional projects (unlike the proposed project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 pounds per day of NOx and 89,180 pounds per day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone. As shown above in Table T, project-related construction activities would generate a maximum of 23.02 pounds per day of VOC and 50.74 pounds per day of NOx and as shown above in Table V, operation of the proposed project would generate 7.03 pounds per day of VOC and 18.17 pounds per day NOx. The proposed project would not generate anywhere near these levels of 6,620 pounds per day of NOx or 89,190 pounds per day of VOC emissions. Therefore, the proposed project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

Notwithstanding, this analysis does evaluate the proposed project's localized impact to air quality for emissions of CO, NOX, PM10, and PM2.5 by comparing the proposed project's onsite emissions to the SCAQMD's applicable LST thresholds. As evaluated in this analysis, the proposed project would not result in emissions that exceeded the SCAQMD's LSTs. Therefore, the proposed project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NOX, PM10, and PM2.5.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions and local impacts from on-site operations.

Local CO Hotspot Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards of 20 ppm over one hour or 9 ppm over eight hours.

At the time of the 1993 Handbook, the Air Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Air Basin and in the state have steadily declined. In 2007, the Air Basin was designated in attainment for CO under both the CAAQS and NAAQS. SCAQMD conducted a CO hot spot analysis for attainment at the busiest intersections in Los Angeles during the peak morning and afternoon periods and did not predict a violation of CO standards[4]. Since the nearby intersections to the proposed project are much smaller with less traffic than what was analyzed by the SCAQMD, no local CO Hotspot are anticipated to be created from the proposed project and no CO Hotspot modeling was performed. Therefore, a less than significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Local Criteria Pollutant Impacts from Onsite Operations

Project-related air emissions from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances may have the potential to create emissions areas that exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from onsite operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Table N shows the onsite emissions from the CalEEMod model that includes area sources, energy usage, onsite off-road equipment, and vehicles operating in the immediate vicinity of the project site and the calculated emissions thresholds.

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

Table W – Operations-Related Local Criteria Pollutant Emissions

Onsite Emission Source	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources	<0.00	0.03	<0.00	<0.00
Energy Usage	0.14	0.12	0.01	0.01
Mobile Sources[1]	1.94	1.55	0.62	0.18
Off-Road Equipment[2]	2.48	32.44	0.04	0.04
Total Emissions	**4.57**	**34.14**	**0.67**	**0.23**
SCAQMD Local Operational Thresholds[3]	**237**	**1,488**	**3**	**2**
Exceeds Threshold?	No	No	No	No

Notes:
[3] Mobile sources based on 1/8 of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the project site.
[2] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 requires all off-road equipment to be non-diesel-powered).
[3] The nearest sensitive receptors to the project site are single-family homes located as close as 30 feet (11 meters) south of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 34, Central San Bernardino Valley.

The data provided in Table N shows that the on-going operations of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to onsite emissions and no mitigation would be required.

Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Level of Significance

Less than significant impact.

10.4 Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated above in Section 10.3 for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from local criteria pollutant and toxic air contaminant emissions. The nearest sensitive receptors to the project site are the single-family homes that are located adjacent to the south side of the project site, where the residential structures are located as close as 30 feet south of the project site. The nearest school is Bloomington High School, which is located as near as 330 feet south of the project site.

Construction-Related Sensitive Receptor Impacts

Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the proposed project have been analyzed above in Section 10.3 and found that the construction of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, construction of the proposed project would create a less than significant construction-related impact to local air quality and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

Construction activities are anticipated to generate TAC emissions from diesel particulate matter (DPM) associated with the operation of trucks and off-road equipment and from possible asbestos in the structures to be demolished.

Diesel Particulate Matter Emissions

The greatest potential for toxic air contaminant emissions would be related to DPM emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30-year exposure period for the nearby sensitive receptors (OEHHA, 2015).

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0 or Tier 1 equipment and by January 2023 no commercial operator is allowed to purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. Therefore, due to the limitations in off-road construction equipment DPM emissions from implementation of Section 2448, a less than significant short-term TAC impacts would occur during construction of the proposed project from DPM emissions.

Asbestos Emissions

It is possible that the existing onsite structures to be demolished contains asbestos. According to SCAQMD Rule 1403 requirements, prior to the start of demolition activities, the existing structures located onsite shall be thoroughly surveyed for the presence of asbestos by a person that is certified by Cal/OSHA for asbestos surveys. Rule 1403 requires that the SCAQMD be notified a minimum of 10 days before any demolition activities begin with specific details of all asbestos to be removed, start and completion dates of demolition, work practices and engineering controls to be used to contain the asbestos emissions, estimates on the amount of asbestos to be removed, the name of the waste disposal site where the asbestos will be taken, and names and addresses of all contractors and transporters that will be involved in the asbestos removal process. Therefore, through adherence to the asbestos removal requirements,

detailed in SCAQMD Rule 1403, a less than significant asbestos impact would occur during construction of the proposed project

As such, construction of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operations-Related Sensitive Receptor Impacts

The ongoing operations of the proposed project may expose sensitive receptors to substantial pollutant concentrations of local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from onsite operations. The following analyzes the vehicular CO emissions. Local criteria pollutant impacts from onsite operations, and toxic air contaminant impacts.

Local CO Hotspot Impacts from Project-Generated Vehicle Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential impacts to sensitive receptors. The analysis provided above in Section 10.3 shows that no local CO Hotspots are anticipated to be created at any nearby intersections from the vehicle traffic generated by the proposed project. Therefore, operation of the proposed project would result in a less than significant exposure of offsite sensitive receptors to substantial pollutant concentrations.

Local Criteria Pollutant Impacts from Onsite Operations

The local air quality impacts from the operation of the proposed project would occur from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances. The analysis provided above in Section 10.3 found that the operation of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

The proposed project consists of development of a warehouse that would generate DPM emissions from diesel truck operations and from transport refrigeration units (TRUs), which are known sources of TACs. The TAC impacts to the nearby sensitive receptors have been analyzed through use of the AERMOD model and the model input parameters detailed above in Section 8.3. Health risks from TACs are twofold. First, TACs are carcinogens according to the State of California. Second, short-term acute and long-term chronic exposure to TACs can cause health effects to the respiratory system. Each of these health risks is discussed below.

Cancer Risks

According to the OEHHA Guidance (OEHHA, 2015) and *Risk Assessment Procedures for Rules 1401, 1401.1 and 212*, (SCAQMD, 2017), the cancer risk should be calculated using the following formula:

Cancer Risk = [Dose-inh (mg/(Kg-day)] * [Cancer Potency Factor (kg-day)/mg]*[1x10^6] * Age Sensitivity Factor * Fraction of Time at Home

$$\text{Dose-inh} = (C_{air} * DBR * A * EF * ED * 10^6) / AT$$

Where:

C_{air} [Concentration in air ($\mu g/m^3$)] = (Calculated by AERMOD Model)

DBR [Daily breathing rate (L/kg body weight – day)]

A [Inhalation absorption factor]

EF [Exposure frequency (days/year)]

ED [Exposure duration (years)]

10^6 [Micrograms to milligrams conversion]

AT [Average time period over which exposure is averaged in days]

The cancer risk parameters used in this evaluation for the nearby residential and temple uses are shown in Table X.

Table X – Cancer Risk Calculation Parameters

Parameter	Operations		
	2023 – 2025 (3rd Trimester to 2 years)	**2026 – 2040 (2 to 16 years)**	**2041 – 2052 (16 to 30 years)**
Cancer Potency Factor (mg/kg-day) for DPM	1.1	1.1	1.1
Daily Breathing Rate (L/kg body weight-day)	1,009[(1)]	572	261
Inhalation Absorption Factor	1	1	1
Exposure Frequency (days/year)	350	350	350
Exposure Duration (years)	2.25	14	13.75
Age Sensitivity Factor	10	3	1
Fraction of Time at Home	1.0	1.0	1.0
Averaging Time[2] (days)	25,550	25,550	25,550
Potential Cancer Risk =	C_{air} * 342	C_{air} * 362	C_{air} * 39.5

Notes:

[1] Based on 95th percentile breathing rate of 361 for 3rd trimester for 3 months and 1,090 for 0 to 2 years for 24 months (OEHHA, 2015; SCAQMD, 2017).

[2] Based on a 70-year average lifetime (OEHHA, 2015; SCAQMD, 2017)

Table Y provides a summary of the calculated diesel emission concentrations at the nearest sensitive receptors. Receptor 8 is located at Bloomington High School, south of the project site and all other receptors are located at nearby residential structures. Appendices C, D, and E provide the AERMOD printouts.

Table Y – Project Operational DPM Emissions Cancer Risks at Nearby Sensitive Receptors

Sensitive Receptor[1]	Receptor Location		Annual PM10 Concentration (µg/m³)			Cancer Risk Per Million People[2]
	X	Y	2023-2025	2026-2040	2041-2052	
1	461,352	3,769,256	0.0007	0.0007	0.0006	0.5
2	461,484	3,769,257	0.0011	0.0010	0.0010	0.8
3	461,729	3,769,204	0.0020	0.0019	0.0019	1.4
4	461,780	3,769,203	0.0014	0.0013	0.0013	1.0
5	461,786	3,769,062	0.0005	0.0005	0.0005	0.3
6	461,726	3,769,022	0.0005	0.0005	0.0005	0.3
7	461,645	3,769,015	0.0005	0.0005	0.0005	0.4
8	461,568	3,768,930	0.0009	0.0009	0.0009	0.6
9	461,434	3,769,023	0.00012	0.0012	0.0012	0.9
10	461,372	3,769,044	0.0010	0.0009	0.0009	0.7
11	461,382	3,769,140	0.0008	0.0008	0.0007	0.6
12	461,286	3,769,219	0.0008	0.0007	0.0006	0.5
					Threshold of Significance	**10**
					Exceed Threshold?	**No**

Notes:
[1] The locations of each Sensitive Receptor are shown above in Figure 3.
[2] The residential cancer risk based on: C_{air} (2023-2025) * 342 + C_{air} (2026-2040) * 362 + C_{air} (2041-2052) * 39.5.
Source: Calculated from ISC-AERMOD View Version 10.2.1.

Table Y shows that the cancer risk from the proposed project's DPM emissions would be as high as 1.4 per million persons at the residential structure, that may or may not be utilized as a residence, located east of the project site. The TAC concentrations at the nearby sensitive receptors would be within the SCAQMD's threshold of 10 per million persons. Therefore, operation of the proposed project would result in a less than significant impact due to the cancer risk from TAC emissions.

Non-Cancer Risks

In addition to the cancer risk from exposure to TAC emissions there is also the potential TAC exposure may result in adverse health impacts from acute and chronic illnesses, which are detailed below.

Chronic Health Impacts

Chronic health effects are characterized by prolonged or repeated exposure to a TAC over many days, months, or years. Symptoms from chronic health impacts may not be immediately apparent and are often irreversible. The chronic hazard index is based on the most impacted sensitive receptor from the proposed project and is calculated from the annual average concentrations of PM10. The relationship for non-cancer chronic health effects is given by the equation:

$$HI_{DPM} = C_{DPM} / REL_{DPM}$$

Where,

HI_{DPM} = Hazard Index; an expression of the potential for non-cancer health effects.

C_{DPM} = Annual average diesel particulate matter concentration in µg/m³.

REL_{DPM}= Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The REL_{DPM} is 5 µg/m^3. The Office of Environmental Health Hazard Assessment has established this concentration as protective for the respiratory system. As shown above in Table Y, the AERMOD model found that the highest annual off-site concentration is 0.0011 µg/m^3 for DPM chronic non-cancer risk emissions. The resulting Hazard Index is:

$$HI_{DPM} = 0.002 / 5 = 0.0004$$

The criterion for significance is a Chronic Hazard Index increase of 1.0 or greater, which is detailed above in Section 9.3. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer chronic health risk from TAC emissions created by the proposed project.

Acute Health Impacts

Acute health effects are characterized by sudden and severe exposure and rapid absorption of a TAC. Normally, a single large exposure is involved. Acute health effects are often treatable and reversible. The acute hazard index is calculated from the maximum 24-hour concentrations of PM10 at the point of maximum impact (PMI), which has been calculated with the AERMOD model and the parameters detailed above in Section 8.3. The relationship for non-cancer acute health effects is given by the equation:

$$AHI = C / AREL$$

Where,

AHI = Acute Hazard Index; an expression of the potential for non-cancer health effects.
C = Maximum hourly concentration of either PM10 in µg/m^3.
AREL = Acute Reference Exposure Level.

No acute risk has been found to be directly created from DPM, so there is no AREL assigned to DPM, however in order to provide an DPM equivalent AREL, the ARELs from all of the other TACs that are emitted in diesel exhaust were added together based on their diesel weighting shown above in Table A. This resulted in a diesel emission weighted equivalent AREL of 2,189 µg/m^3. The AERMOD model found that the highest 24-hour concentration at the PMI is 0.0026 µg/m^3 for DPM equivalent acute non-cancer risk emissions and Appendix C provides the 24-hour concentrations during year 2023-2025 operations, which was found to create the highest 24-hour DPM concentrations in the AERMOD model. The resulting Hazard Index is:

$$AHI = 0.0048 / 2,189 = 0.0000021$$

The criterion for significance is an Acute Hazard Index increase of 1.0 or greater, which is detailed above in Section 9.3. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer acute health risk from TAC emissions created by the proposed project.

Therefore, operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Level of Significance

Less than significant impact.

10.5 Odor Emissions

The proposed project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

The proposed project would consist of the development of a warehouse. Operation of the proposed project may create odors from diesel truck emissions, and from trash storage bins. Pursuant to County regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Diesel truck emissions odors would be generated intermittently from truck loading and unloading activities at the project site and would not likely be noticeable for extended periods of time beyond the project site boundaries. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 and County trash storage regulations, no significant impact related to odors would occur during the on-going

operations of the proposed project. Therefore, a less than significant odor impact would occur and no mitigation would be required.

Level of Significance

Less than significant impact

10.6 Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2019, Southern California Edison, who provides electricity to the project vicinity provided 80,913 Gigawatt-hours per year of electricity[5].

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2019, San Bernardino County consumed 547.27 Million Therms of natural gas[6].

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2017, 993 million gallons of gasoline and 265 million gallons of diesel was sold in San Bernardino County[7].

5 Obtained from: http://www.ecdms.energy.ca.gov/elecbyutil.aspx
6 Obtained from: http://www.ecdms.energy.ca.gov/gasbycounty.aspx
7 Obtained from: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The construction activities for the proposed project are anticipated to include demolition of the existing structures and parking lots on the project sit, site preparation and grading of the 13.23 acre project site, building construction of the warehouse, paving of the truck loading area, driveways, and parking lots, and application of architectural coatings. The proposed project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g. hauling of material to disposal facilities);
2. Electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction the proposed project would consume electricity to construct the proposed warehouse and infrastructure. Electricity would be supplied to the project site by Southern California Edison and would be obtained from the existing electrical lines in the vicinity of the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since there are currently power lines in the vicinity of the project site, it is anticipated that only nominal improvements would be required to Southern California Edison distribution lines and equipment with development of the proposed project. Compliance with County's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Natural Gas

Construction of the proposed project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since the project site is currently has natural gas service in the vicinity of the project site, construction of the proposed project would be limited to installation of new natural gas connections within the project site. Development of the proposed project would likely not require extensive infrastructure improvements to serve the project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the proposed project would notify and coordinate with SoCal Gas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that the off-road equipment utilized during construction of the proposed project would consume 71,940 gallons of fuel. The on-road construction trips fuel usage was calculated through use of the construction vehicle trip assumptions and fuel use assumptions shown above in Section 8.2, which found that the on-road trips generated from construction of the proposed project would consume 60,987 gallons of fuel. As such, the combined fuel used from off-road construction equipment and on-road construction trips for the proposed project would result in the consumption of 132,926 gallons of petroleum fuel. This equates to 0.01 percent of the gasoline and diesel consumed annually in San Bernardino County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The on-going operation of the proposed project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting,

appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the proposed project would result in consumption of electricity at the project site. As detailed above in Section 8.3 the proposed project would consume 682,647 kilowatt-hours per year of electricity. This equates to 0.0008 percent of the electricity consumed annually by Southern California Edison. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the Southern California Edison service area.

It should be noted that, the proposed project would comply with all Federal, State, and County requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structures. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, the project would not result in the wasteful or inefficient use of electricity and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the proposed project would result in increased consumption of natural gas at the project site. As detailed above in Section 8.3 the proposed project would consume 522 MBTU per year of natural gas. This equates to 0.00095 percent of the natural gas consumed annually in San Bernardino County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that, the proposed project would comply with all Federal, State, and County requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. As detailed above in Section 8.2 the proposed project would consume 183,256 gallons of petroleum fuel per year from vehicle travel. This equates to 0.01 percent of the gasoline and diesel consumed annually in San Bernardino County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed project will be designed and built to minimize

transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and County related to Air Quality, GHG emissions, Transportation/Circulation, and Water Supply. Additionally, the proposed project would be constructed in accordance with all applicable County Building and Fire Codes. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.7 Energy Plan Consistency

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the proposed project is the *County of San Bernardino General Plan Renewable Energy and Conservation Element*, Amended February 2019. The proposed project's consistency with the applicable energy-related policies in the General Plan are shown in Table Z.

Table Z – Proposed Project Compliance with Applicable General Plan Energy Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
1.4	Encourage residents and businesses to conserve energy.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require enhanced insulation in order to reduce energy usage that will conserve energy.
2.1	Support solar energy generation, solar water heating, wind energy and bioenergy systems that are consistent with the orientation, siting and environmental compatibility policies of the General Plan.	**Consistent.** The proposed structures will be designed to meet the 2019 Title 24 Part 6 building standards that require all new non-residential structures to be designed to be solar ready.
2.2	Promote use of energy storage technologies that are appropriate for the character of the proposed location.	**Consistent.** The proposed structures will be designed to meet the 2019 Title 24 Part 6 building standards that require the electrical system in non-residential buildings to be designed to handle future solar PV systems and battery storage systems.
2.3	Encourage the use of feasible emerging and experimental renewable energy technologies that are compatible with County regulatory standards.	**Consistent.** The proposed structures will be designed to meet the 2019 Title 24 Part 6 building standards that require the electrical system in non-residential buildings to be designed to handle future renewable energy technologies.
2.6	Encourage energy efficiency through appropriate renewable energy systems.	**Consistent.** The proposed structures will be designed to meet the 2019 Title 24 Part 6 building standards that require the electrical system in non-residential buildings to be designed to handle future solar PV systems and battery storage systems.

Policy No.	General Plan Policy	Proposed Project Implementation Actions
3.1	Prioritize, facilitate, and encourage onsite accessory RE generation to serve the unincorporated county, with a primary focus on rooftop and parking lot solar energy generation.	**Consistent.** The proposed structures will be designed to meet the 2019 Title 24 Part 6 building standards that require the electrical system in non-residential buildings to be designed to handle future solar PV systems and battery storage systems.

Source: County of San Bernardino, 2019.

As shown in Table Z, the proposed project would be consistent with all applicable energy-related policies from the General Plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.8 Generation of Greenhouse Gas Emissions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would consist of the development of a warehouse. The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment. The project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed in Section 7.1 above. A summary of the results is shown below in Table AA and the CalEEMod model run annual printouts are provided in Appendix F.

Table AA – Project Related Greenhouse Gas Annual Emissions

	Greenhouse Gas Emissions (Metric Tons per Year)			
Category	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	0.01	<0.00	<0.00	0.01
Energy Usage[2]	148.90	0.01	<0.00	149.69
Mobile Sources[3]	1,654.10	0.06	0.22	1,719.70
Off-Road Equipment[4]	79.82	0.03	<0.00	80.46
Solid Waste[5]	24.76	1.46	<0.00	61.33
Water and Wastewater[6]	133.02	1.66	0.04	186.49
Construction[7]	39.31	0.01	<0.00	39.89
Total Emissions	2,079.90	3.22	0.26	**2,237.56**
County of San Bernardino GHG Emissions Reduction Plan Screening Threshold				**3,000**
Exceed Screening Threshold?				No

Notes:
[1] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consists of GHG emissions from electricity and natural gas usage.
[3] Mobile sources consist of GHG emissions from vehicles.
[4] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 requires all off-road equipment to be non-diesel-powered).
[5] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: CalEEMod Version 2020.4.0.

The data provided in Table AA shows that the proposed project would create 2,237.56 $MTCO_2e$ per year. The County's GHG Emission Reduction Plan, small projects that do not exceed 3,000 $MTCO_2e$ per year will considered to be consistent with the Plan and determined to have a less than significant individual and cumulative impact for GHG emissions. Since the proposed project's GHG emissions are below the County's screening threshold, the proposed project would not create a significant cumulative impact from GHG emissions. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.9 Greenhouse Gas Plan Consistency

The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The applicable plan for the proposed project is the *County of San Bernardino Greenhouse Gas Emissions Reduction Plan* (GHG Plan), September 2011. In addition, the G*reenhouse Gas Emissions Development Review Processes* (GHG Review Processes), prepared for the County of San Bernardino, updated March 2015, provide direction for conformity of new development projects to the GHG Plan. The GHG Review Processes determined that projects that do not exceed 3,000 $MTCO_2e$ per year will be consistent with the GHG Plan and determined to have a less than significant individual and cumulative impact for GHG emissions. For projects that exceed 3,000 $MTCO_2e$ per year of GHG emissions, the GHG Review Processes has determined that implementation of 100 or greater points associated with mitigation measures listed on its Screen Tables, will adequately reduce the proposed project's GHG emissions, when considered with other future development and existing development to allow the County to meet its 2020 target GHG reductions and support reductions in GHG emissions beyond 2020.

As shown in Section 9.6 above, the proposed project would create 2,237.56 $MTCO_2e$ per year, which is well below the 3,000 $MTCO_2e$ per year threshold provided in the GHG Review Processes. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Impacts would be less than significant.

Level of Significance

Less than significant impact.

11.0 REFERENCES

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APPENDIX A

CalEEMod Model Daily Printouts

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

Slover-Alder Avenue Industrial

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	259.48	1000sqft	7.94	259,481.00	0
Parking Lot	5.29	Acre	5.29	230,432.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Project Site = 13.23 acres

Construction Phase - Construction schedule provided by applicant

Off-road Equipment - Grading - 2 Excavators, 1 Grader, 1 Rubber Tired Dozer, 2 Scrapers, 2 Crawler Tractors

Off-road Equipment - Site Preparation - 3 Rubber Tired Dozers and 4 Crawler Tractors

Trips and VMT - 6 vendor trucks added to Demolition, Site Prep, and Grading Phases to account for water truck emissions

Demolition - 16,800 sq ft of building space = 773 tons + 117,000 sq ft of pavement = 2,828 tons

Grading -

Architectural Coating -

Vehicle Trips - Truck Trips analyzed under Parking Lot Land use and the Auto Trips analyzed under the Unrefrigerated Warehouse Land Use

Water And Wastewater -

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

Solid Waste -

Construction Off-road Equipment Mitigation - Water Exposed Area 3x per day selected to account for SCAQMD Rule 403 minimum requirements

Mobile Land Use Mitigation - Improve Pedestrian Network on Project Site and Connecting Offsite and 0.06 mile to nearest Transit Station

Energy Mitigation -

Water Mitigation - Install Low-Flow fixtures and use water-efficient Irrigation Systems selected to account for Title 24 Part 11 requirements

Waste Mitigation - 50% reduction in solid waste selected to account for AB 341

Operational Off-Road Equipment - 4 Forklifts 7 hours per day. Per PDF 1, analyzed as CNG fuel

Fleet Mix - Vehicle Mix set to match Trip Generation Memo

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	129741	129688
tblAreaCoating	Area_Nonresidential_Interior	389222	389064
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	130.00
tblFleetMix	HHD	0.02	0.60
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.58
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1960e-003	0.22
tblFleetMix	LHD2	7.1960e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MDV	0.14	0.00

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

tblFleetMix	MDV	0.14	0.15
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MHD	0.01	0.18
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblLandUse	LandUseSquareFeet	259,480.00	259,481.00
tblLandUse	LotAcreage	5.96	7.94
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	7.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	CC_TL	8.40	40.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	21.36
tblVehicleTrips	ST_TR	1.74	0.97
tblVehicleTrips	SU_TR	0.00	21.36
tblVehicleTrips	SU_TR	1.74	0.97
tblVehicleTrips	WD_TR	0.00	21.36
tblVehicleTrips	WD_TR	1.74	0.97

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.5657	50.7234	30.1156	0.0747	22.0177	2.1631	24.1808	10.3959	1.9902	12.3861	0.0000	7,256.9522	7,256.9522	2.2490	0.2907	7,320.0285
2023	23.0179	29.3038	43.6971	0.0932	3.4411	1.3163	4.7574	0.9243	1.2321	2.1564	0.0000	9,256.3591	9,256.3591	1.4427	0.2897	9,378.7497
Maximum	**23.0179**	**50.7234**	**43.6971**	**0.0932**	**22.0177**	**2.1631**	**24.1808**	**10.3959**	**1.9902**	**12.3861**	**0.0000**	**9,256.3591**	**9,256.3591**	**2.2490**	**0.2907**	**9,378.7497**

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	4.5657	50.7234	30.1156	0.0747	8.7331	2.1631	10.8962	4.0937	1.9902	6.0839	0.0000	7,256.9522	7,256.9522	2.2490	0.2907	7,320.0285
2023	23.0179	29.3038	43.6971	0.0932	3.4411	1.3163	4.7574	0.9243	1.2321	2.1564	0.0000	9,256.3591	9,256.3591	1.4427	0.2897	9,378.7497
Maximum	**23.0179**	**50.7234**	**43.6971**	**0.0932**	**8.7331**	**2.1631**	**10.8962**	**4.0937**	**1.9902**	**6.0839**	**0.0000**	**9,256.3591**	**9,256.3591**	**2.2490**	**0.2907**	**9,378.7497**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.18**	**0.00**	**45.91**	**55.67**	**0.00**	**43.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Energy	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Mobile	1.3866	18.9848	15.5487	0.1244	6.2861	0.2106	6.4967	1.7328	0.2011	1.9339		13,288.5456	13,288.5456	0.4703	1.6962	13,805.7729
Offroad	0.0510	2.4827	32.4407	5.3500e-003		0.0400	0.0400		0.0400	0.0400	0.0000	676.7805	676.7805	0.2189		682.2526
Total	**7.3511**	**21.6078**	**48.1341**	**0.1306**	**6.2861**	**0.2614**	**6.5475**	**1.7328**	**0.2519**	**1.9847**	**0.0000**	**14,133.4925**	**14,133.4925**	**0.6926**	**1.6993**	**14,657.1948**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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	lb/day										lb/day					
Area	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Energy	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Mobile	1.2026	14.7889	12.4149	0.0950	4.7694	0.1602	4.9296	1.3147	0.1529	1.4676		10,142.4730	10,142.4730	0.3656	1.2989	10,538.6867
Offroad	0.0510	2.4827	32.4407	5.3500e-003		0.0400	0.0400		0.0400	0.0400	0.0000	676.7805	676.7805	0.2189		682.2526
Total	**7.1671**	**17.4119**	**45.0003**	**0.1012**	**4.7694**	**0.2110**	**4.9804**	**1.3147**	**0.2037**	**1.5184**	**0.0000**	**10,987.4200**	**10,987.4200**	**0.5879**	**1.3020**	**11,390.1086**

	ROG	NOx	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	**2.50**	**19.42**	**6.51**	**22.55**	**24.13**	**19.29**	**23.93**	**24.13**	**19.12**	**23.49**	**0.00**	**22.26**	**22.26**	**15.12**	**23.38**	**22.29**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2022	3/28/2022	5	20	
2	Site Preparation	Site Preparation	3/29/2022	4/11/2022	5	10	
3	Grading	Grading	4/12/2022	5/23/2022	5	30	
4	Building Construction	Building Construction	5/24/2022	7/17/2023	5	300	

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

5	Paving	Paving	1/17/2023	7/17/2023	5	130	
6	Architectural Coating	Architectural Coating	1/17/2023	7/17/2023	5	130	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 120

Acres of Paving: 5.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 389,222; Non-Residential Outdoor: 129,741; Striped Parking Area: 13,826 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	356.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	206.00	80.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	41.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.8518	0.0000	3.8518	0.5832	0.0000	0.5832			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**3.8518**	**1.2427**	**5.0945**	**0.5832**	**1.1553**	**1.7385**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0673	2.4260	0.6330	0.0105	0.3117	0.0255	0.3372	0.0855	0.0244	0.1099		1,140.0279	1,140.0279	0.0488	0.1807	1,195.0842
Vendor	0.0105	0.2627	0.0964	1.1200e-003	0.0384	3.1300e-003	0.0416	0.0111	2.9900e-003	0.0141		120.0413	120.0413	3.2400e-003	0.0178	125.4161
Worker	0.0635	0.0402	0.6179	1.5500e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		157.4352	157.4352	4.0900e-003	3.9200e-003	158.7050
Total	**0.1413**	**2.7290**	**1.3473**	**0.0131**	**0.5178**	**0.0295**	**0.5473**	**0.1410**	**0.0282**	**0.1692**		**1,417.5043**	**1,417.5043**	**0.0562**	**0.2023**	**1,479.2054**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5022	0.0000	1.5022	0.2275	0.0000	0.2275			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.5022**	**1.2427**	**2.7449**	**0.2275**	**1.1553**	**1.3827**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0673	2.4260	0.6330	0.0105	0.3117	0.0255	0.3372	0.0855	0.0244	0.1099		1,140.0279	1,140.0279	0.0488	0.1807	1,195.0842
Vendor	0.0105	0.2627	0.0964	1.1200e-003	0.0384	3.1300e-003	0.0416	0.0111	2.9900e-003	0.0141		120.0413	120.0413	3.2400e-003	0.0178	125.4161
Worker	0.0635	0.0402	0.6179	1.5500e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		157.4352	157.4352	4.0900e-003	3.9200e-003	158.7050
Total	**0.1413**	**2.7290**	**1.3473**	**0.0131**	**0.5178**	**0.0295**	**0.5473**	**0.1410**	**0.0282**	**0.1692**		**1,417.5043**	**1,417.5043**	**0.0562**	**0.2023**	**1,479.2054**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	4.4790	50.4124	20.0053	0.0570		2.1590	2.1590		1.9862	1.9862		5,517.2355	5,517.2355	1.7844		5,561.8451
Total	**4.4790**	**50.4124**	**20.0053**	**0.0570**	**21.7780**	**2.1590**	**23.9370**	**10.3315**	**1.9862**	**12.3177**		**5,517.2355**	**5,517.2355**	**1.7844**		**5,561.8451**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0105	0.2627	0.0964	1.1200e-003	0.0384	3.1300e-003	0.0416	0.0111	2.9900e-003	0.0141		120.0413	120.0413	3.2400e-003	0.0178	125.4161
Worker	0.0762	0.0483	0.7415	1.8600e-003	0.2012	1.0600e-003	0.2023	0.0534	9.7000e-004	0.0543		188.9222	188.9222	4.9100e-003	4.7000e-003	190.4461
Total	**0.0867**	**0.3110**	**0.8380**	**2.9800e-003**	**0.2396**	**4.1900e-003**	**0.2438**	**0.0644**	**3.9600e-003**	**0.0684**		**308.9635**	**308.9635**	**8.1500e-003**	**0.0225**	**315.8622**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4934	0.0000	8.4934	4.0293	0.0000	4.0293			0.0000			0.0000
Off-Road	4.4790	50.4124	20.0053	0.0570		2.1590	2.1590		1.9862	1.9862	0.0000	5,517.2355	5,517.2355	1.7844		5,561.8451
Total	**4.4790**	**50.4124**	**20.0053**	**0.0570**	**8.4934**	**2.1590**	**10.6524**	**4.0293**	**1.9862**	**6.0155**	**0.0000**	**5,517.2355**	**5,517.2355**	**1.7844**		**5,561.8451**

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0105	0.2627	0.0964	1.1200e-003	0.0384	3.1300e-003	0.0416	0.0111	2.9900e-003	0.0141		120.0413	120.0413	3.2400e-003	0.0178	125.4161
Worker	0.0762	0.0483	0.7415	1.8600e-003	0.2012	1.0600e-003	0.2023	0.0534	9.7000e-004	0.0543		188.9222	188.9222	4.9100e-003	4.7000e-003	190.4461
Total	**0.0867**	**0.3110**	**0.8380**	**2.9800e-003**	**0.2396**	**4.1900e-003**	**0.2438**	**0.0644**	**3.9600e-003**	**0.0684**		**308.9635**	**308.9635**	**8.1500e-003**	**0.0225**	**315.8622**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.2641	0.0000	10.2641	3.7683	0.0000	3.7683			0.0000			0.0000
Off-Road	4.2792	47.5079	29.1953	0.0715		1.9081	1.9081		1.7554	1.7554		6,926.9974	6,926.9974	2.2403		6,983.0056
Total	**4.2792**	**47.5079**	**29.1953**	**0.0715**	**10.2641**	**1.9081**	**12.1722**	**3.7683**	**1.7554**	**5.5237**		**6,926.9974**	**6,926.9974**	**2.2403**		**6,983.0056**

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

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0105	0.2627	0.0964	1.1200e-003	0.0384	3.1300e-003	0.0416	0.0111	2.9900e-003	0.0141		120.0413	120.0413	3.2400e-003	0.0178	125.4161
Worker	0.0847	0.0537	0.8239	2.0600e-003	0.2236	1.1700e-003	0.2247	0.0593	1.0800e-003	0.0604		209.9136	209.9136	5.4600e-003	5.2200e-003	211.6067
Total	**0.0952**	**0.3164**	**0.9203**	**3.1800e-003**	**0.2620**	**4.3000e-003**	**0.2663**	**0.0704**	**4.0700e-003**	**0.0744**		**329.9549**	**329.9549**	**8.7000e-003**	**0.0230**	**337.0228**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0030	0.0000	4.0030	1.4696	0.0000	1.4696			0.0000			0.0000
Off-Road	4.2792	47.5079	29.1953	0.0715		1.9081	1.9081		1.7554	1.7554	0.0000	6,926.9974	6,926.9974	2.2403		6,983.0056
Total	**4.2792**	**47.5079**	**29.1953**	**0.0715**	**4.0030**	**1.9081**	**5.9111**	**1.4696**	**1.7554**	**3.2251**	**0.0000**	**6,926.9974**	**6,926.9974**	**2.2403**		**6,983.0056**

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

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0105	0.2627	0.0964	1.1200e-003	0.0384	3.1300e-003	0.0416	0.0111	2.9900e-003	0.0141		120.0413	120.0413	3.2400e-003	0.0178	125.4161
Worker	0.0847	0.0537	0.8239	2.0600e-003	0.2236	1.1700e-003	0.2247	0.0593	1.0800e-003	0.0604		209.9136	209.9136	5.4600e-003	5.2200e-003	211.6067
Total	**0.0952**	**0.3164**	**0.9203**	**3.1800e-003**	**0.2620**	**4.3000e-003**	**0.2663**	**0.0704**	**4.0700e-003**	**0.0744**		**329.9549**	**329.9549**	**8.7000e-003**	**0.0230**	**337.0228**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1394	3.5032	1.2857	0.0149	0.5126	0.0417	0.5542	0.1476	0.0399	0.1875		1,600.5507	1,600.5507	0.0433	0.2369	1,672.2148
Worker	0.8725	0.5526	8.4864	0.0213	2.3026	0.0121	2.3147	0.6107	0.0111	0.6218		2,162.1100	2,162.1100	0.0562	0.0538	2,179.5493
Total	**1.0119**	**4.0558**	**9.7720**	**0.0362**	**2.8151**	**0.0538**	**2.8689**	**0.7583**	**0.0510**	**0.8093**		**3,762.6606**	**3,762.6606**	**0.0995**	**0.2907**	**3,851.7641**

Mitigated Construction On-Site

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

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1394	3.5032	1.2857	0.0149	0.5126	0.0417	0.5542	0.1476	0.0399	0.1875		1,600.5507	1,600.5507	0.0433	0.2369	1,672.2148
Worker	0.8725	0.5526	8.4864	0.0213	2.3026	0.0121	2.3147	0.6107	0.0111	0.6218		2,162.1100	2,162.1100	0.0562	0.0538	2,179.5493
Total	**1.0119**	**4.0558**	**9.7720**	**0.0362**	**2.8151**	**0.0538**	**2.8689**	**0.7583**	**0.0510**	**0.8093**		**3,762.6606**	**3,762.6606**	**0.0995**	**0.2907**	**3,851.7641**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

3.5 Building Construction - 2023

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	0.0936	2.8061	1.1775	0.0143	0.5125	0.0211	0.5336	0.1476	0.0202	0.1678		1,535.3454	1,535.3454	0.0401	0.2267	1,603.9137
Worker	0.8055	0.4860	7.7685	0.0206	2.3026	0.0114	2.3140	0.6107	0.0105	0.6211		2,104.6372	2,104.6372	0.0503	0.0495	2,120.6421
Total	**0.8991**	**3.2921**	**8.9459**	**0.0349**	**2.8151**	**0.0325**	**2.8476**	**0.7583**	**0.0306**	**0.7889**		**3,639.9826**	**3,639.9826**	**0.0904**	**0.2762**	**3,724.5558**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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

3.5 Building Construction - 2023

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	0.0936	2.8061	1.1775	0.0143	0.5125	0.0211	0.5336	0.1476	0.0202	0.1678		1,535.3454	1,535.3454	0.0401	0.2267	1,603.9137
Worker	0.8055	0.4860	7.7685	0.0206	2.3026	0.0114	2.3140	0.6107	0.0105	0.6211		2,104.6372	2,104.6372	0.0503	0.0495	2,120.6421
Total	**0.8991**	**3.2921**	**8.9459**	**0.0349**	**2.8151**	**0.0325**	**2.8476**	**0.7583**	**0.0306**	**0.7889**		**3,639.9826**	**3,639.9826**	**0.0904**	**0.2762**	**3,724.5558**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1394**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

3.6 Paving - 2023

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	0.0587	0.0354	0.5657	1.5000e-003	0.1677	8.3000e-004	0.1685	0.0445	7.6000e-004	0.0452		153.2503	153.2503	3.6600e-003	3.6000e-003	154.4157
Total	**0.0587**	**0.0354**	**0.5657**	**1.5000e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.6000e-004**	**0.0452**		**153.2503**	**153.2503**	**3.6600e-003**	**3.6000e-003**	**154.4157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1394**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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

3.6 Paving - 2023

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	0.0587	0.0354	0.5657	1.5000e-003	0.1677	8.3000e-004	0.1685	0.0445	7.6000e-004	0.0452		153.2503	153.2503	3.6600e-003	3.6000e-003	154.4157
Total	**0.0587**	**0.0354**	**0.5657**	**1.5000e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.6000e-004**	**0.0452**		**153.2503**	**153.2503**	**3.6600e-003**	**3.6000e-003**	**154.4157**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.9960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**19.1876**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

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	0.1603	0.0967	1.5462	4.0900e-003	0.4583	2.2600e-003	0.4606	0.1215	2.0800e-003	0.1236		418.8841	418.8841	0.0100	9.8500e-003	422.0696
Total	**0.1603**	**0.0967**	**1.5462**	**4.0900e-003**	**0.4583**	**2.2600e-003**	**0.4606**	**0.1215**	**2.0800e-003**	**0.1236**		**418.8841**	**418.8841**	**0.0100**	**9.8500e-003**	**422.0696**

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	18.9960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**19.1876**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

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	0.1603	0.0967	1.5462	4.0900e-003	0.4583	2.2600e-003	0.4606	0.1215	2.0800e-003	0.1236		418.8841	418.8841	0.0100	9.8500e-003	422.0696
Total	**0.1603**	**0.0967**	**1.5462**	**4.0900e-003**	**0.4583**	**2.2600e-003**	**0.4606**	**0.1215**	**2.0800e-003**	**0.1236**		**418.8841**	**418.8841**	**0.0100**	**9.8500e-003**	**422.0696**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, 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	1.2026	14.7889	12.4149	0.0950	4.7694	0.1602	4.9296	1.3147	0.1529	1.4676		10,142.4730	10,142.4730	0.3656	1.2989	10,538.6867
Unmitigated	1.3866	18.9848	15.5487	0.1244	6.2861	0.2106	6.4967	1.7328	0.2011	1.9339		13,288.5456	13,288.5456	0.4703	1.6962	13,805.7729

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	112.99	112.99	112.99	1,645,198	1,248,255
Unrefrigerated Warehouse-No Rail	251.70	251.70	251.70	1,078,696	818,435
Total	364.69	364.69	364.69	2,723,895	2,066,689

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
Parking Lot	16.60	40.00	6.90	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.221000	0.177000	0.602000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.579000	0.059000	0.185000	0.150000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.027000	0.000000	0.000000

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
NaturalGas Unmitigated	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076

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					
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	1428.92	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Total		**0.0154**	**0.1401**	**0.1177**	**8.4000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**168.1086**	**168.1086**	**3.2200e-003**	**3.0800e-003**	**169.1076**

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					
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	1.42892	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Total		**0.0154**	**0.1401**	**0.1177**	**8.4000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**168.1086**	**168.1086**	**3.2200e-003**	**3.0800e-003**	**169.1076**

6.0 Area Detail

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Summer

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Unmitigated	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618

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	0.6763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2193					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Total	**5.8981**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0580**	**0.0580**	**1.5000e-004**		**0.0618**

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	0.6763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2193					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Total	**5.8981**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0580**	**0.0580**	**1.5000e-004**		**0.0618**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	4	7.00	260	89	0.20	CNG

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.0510	2.4827	32.4407	5.3500e-003		0.0400	0.0400		0.0400	0.0400	0.0000	676.7805	676.7805	0.2189		682.2526
Total	**0.0510**	**2.4827**	**32.4407**	**5.3500e-003**		**0.0400**	**0.0400**		**0.0400**	**0.0400**	**0.0000**	**676.7805**	**676.7805**	**0.2189**		**682.2526**

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

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

Slover-Alder Avenue Industrial

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	259.48	1000sqft	7.94	259,481.00	0
Parking Lot	5.29	Acre	5.29	230,432.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Project Site = 13.23 acres

Construction Phase - Construction schedule provided by applicant

Off-road Equipment - Grading - 2 Excavators, 1 Grader, 1 Rubber Tired Dozer, 2 Scrapers, 2 Crawler Tractors

Off-road Equipment - Site Preparation - 3 Rubber Tired Dozers and 4 Crawler Tractors

Trips and VMT - 6 vendor trucks added to Demolition, Site Prep, and Grading Phases to account for water truck emissions

Demolition - 16,800 sq ft of building space = 773 tons + 117,000 sq ft of pavement = 2,828 tons

Grading -

Architectural Coating -

Vehicle Trips - Truck Trips analyzed under Parking Lot Land use and the Auto Trips analyzed under the Unrefrigerated Warehouse Land Use

Water And Wastewater -

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

Solid Waste -

Construction Off-road Equipment Mitigation - Water Exposed Area 3x per day selected to account for SCAQMD Rule 403 minimum requirements

Mobile Land Use Mitigation - Improve Pedestrian Network on Project Site and Connecting Offsite and 0.06 mile to nearest Transit Station

Energy Mitigation -

Water Mitigation - Install Low-Flow fixtures and use water-efficient Irrigation Systems selected to account for Title 24 Part 11 requirements

Waste Mitigation - 50% reduction in solid waste selected to account for AB 341

Operational Off-Road Equipment - 4 Forklifts 7 hours per day. Per PDF 1, analyzed as CNG fuel

Fleet Mix - Vehicle Mix set to match Trip Generation Memo

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	129741	129688
tblAreaCoating	Area_Nonresidential_Interior	389222	389064
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	130.00
tblFleetMix	HHD	0.02	0.60
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.58
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1960e-003	0.22
tblFleetMix	LHD2	7.1960e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MDV	0.14	0.00

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

tblFleetMix	MDV	0.14	0.15
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MHD	0.01	0.18
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblLandUse	LandUseSquareFeet	259,480.00	259,481.00
tblLandUse	LotAcreage	5.96	7.94
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	7.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	CC_TL	8.40	40.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	21.36
tblVehicleTrips	ST_TR	1.74	0.97
tblVehicleTrips	SU_TR	0.00	21.36
tblVehicleTrips	SU_TR	1.74	0.97
tblVehicleTrips	WD_TR	0.00	21.36
tblVehicleTrips	WD_TR	1.74	0.97

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.5623	50.7390	29.9719	0.0745	22.0177	2.1631	24.1808	10.3959	1.9902	12.3861	0.0000	7,237.2889	7,237.2889	2.2490	0.2928	7,300.4240
2023	22.9737	29.4934	41.9851	0.0908	3.4411	1.3164	4.7575	0.9243	1.2322	2.1564	0.0000	9,008.3980	9,008.3980	1.4425	0.2924	9,131.5954
Maximum	**22.9737**	**50.7390**	**41.9851**	**0.0908**	**22.0177**	**2.1631**	**24.1808**	**10.3959**	**1.9902**	**12.3861**	**0.0000**	**9,008.3980**	**9,008.3980**	**2.2490**	**0.2928**	**9,131.5954**

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	4.5623	50.7390	29.9719	0.0745	8.7331	2.1631	10.8962	4.0937	1.9902	6.0839	0.0000	7,237.2889	7,237.2889	2.2490	0.2928	7,300.4240
2023	22.9737	29.4934	41.9851	0.0908	3.4411	1.3164	4.7575	0.9243	1.2322	2.1564	0.0000	9,008.3980	9,008.3980	1.4425	0.2924	9,131.5954
Maximum	**22.9737**	**50.7390**	**41.9851**	**0.0908**	**8.7331**	**2.1631**	**10.8962**	**4.0937**	**1.9902**	**6.0839**	**0.0000**	**9,008.3980**	**9,008.3980**	**2.2490**	**0.2928**	**9,131.5954**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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**	**52.18**	**0.00**	**45.91**	**55.67**	**0.00**	**43.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Energy	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Mobile	1.2581	19.9414	14.2675	0.1226	6.2861	0.2108	6.4969	1.7328	0.2012	1.9340		13,107.2066	13,107.2066	0.4716	1.7008	13,625.8182
Offroad	0.0510	2.4827	32.4407	5.3500e-003		0.0400	0.0400		0.0400	0.0400	0.0000	676.7805	676.7805	0.2189		682.2526
Total	**7.2226**	**22.5644**	**46.8529**	**0.1288**	**6.2861**	**0.2616**	**6.5477**	**1.7328**	**0.2520**	**1.9848**	**0.0000**	**13,952.1536**	**13,952.1536**	**0.6938**	**1.7038**	**14,477.2401**

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	lb/day										lb/day					
Area	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Energy	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Mobile	1.0764	15.5457	11.5047	0.0936	4.7694	0.1603	4.9298	1.3147	0.1531	1.4678		10,006.5076	10,006.5076	0.3676	1.3027	10,403.9163
Offroad	0.0510	2.4827	32.4407	5.3500e-003		0.0400	0.0400		0.0400	0.0400	0.0000	676.7805	676.7805	0.2189		682.2526
Total	**7.0409**	**18.1687**	**44.0901**	**0.0998**	**4.7694**	**0.2111**	**4.9806**	**1.3147**	**0.2039**	**1.5186**	**0.0000**	**10,851.4546**	**10,851.4546**	**0.5899**	**1.3058**	**11,255.3382**

	ROG	NOx	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	**2.52**	**19.48**	**5.90**	**22.51**	**24.13**	**19.29**	**23.93**	**24.13**	**19.12**	**23.49**	**0.00**	**22.22**	**22.22**	**14.98**	**23.36**	**22.25**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2022	3/28/2022	5	20	
2	Site Preparation	Site Preparation	3/29/2022	4/11/2022	5	10	
3	Grading	Grading	4/12/2022	5/23/2022	5	30	
4	Building Construction	Building Construction	5/24/2022	7/17/2023	5	300	

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

5	Paving	Paving	1/17/2023	7/17/2023	5	130	
6	Architectural Coating	Architectural Coating	1/17/2023	7/17/2023	5	130	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 120

Acres of Paving: 5.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 389,222; Non-Residential Outdoor: 129,741; Striped Parking Area: 13,826 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	356.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	206.00	80.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	41.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.8518	0.0000	3.8518	0.5832	0.0000	0.5832			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**3.8518**	**1.2427**	**5.0945**	**0.5832**	**1.1553**	**1.7385**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0645	2.5472	0.6473	0.0105	0.3117	0.0255	0.3372	0.0855	0.0244	0.1099		1,140.8790	1,140.8790	0.0487	0.1808	1,195.9723
Vendor	0.0101	0.2758	0.0998	1.1200e-003	0.0384	3.1400e-003	0.0416	0.0111	3.0000e-003	0.0141		120.1737	120.1737	3.2200e-003	0.0178	125.5572
Worker	0.0610	0.0423	0.5076	1.4000e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		142.5884	142.5884	4.0800e-003	4.0400e-003	143.8959
Total	**0.1356**	**2.8653**	**1.2547**	**0.0130**	**0.5178**	**0.0295**	**0.5474**	**0.1410**	**0.0282**	**0.1693**		**1,403.6411**	**1,403.6411**	**0.0560**	**0.2026**	**1,465.4253**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5022	0.0000	1.5022	0.2275	0.0000	0.2275			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.5022**	**1.2427**	**2.7449**	**0.2275**	**1.1553**	**1.3827**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0645	2.5472	0.6473	0.0105	0.3117	0.0255	0.3372	0.0855	0.0244	0.1099		1,140.8790	1,140.8790	0.0487	0.1808	1,195.9723
Vendor	0.0101	0.2758	0.0998	1.1200e-003	0.0384	3.1400e-003	0.0416	0.0111	3.0000e-003	0.0141		120.1737	120.1737	3.2200e-003	0.0178	125.5572
Worker	0.0610	0.0423	0.5076	1.4000e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		142.5884	142.5884	4.0800e-003	4.0400e-003	143.8959
Total	**0.1356**	**2.8653**	**1.2547**	**0.0130**	**0.5178**	**0.0295**	**0.5474**	**0.1410**	**0.0282**	**0.1693**		**1,403.6411**	**1,403.6411**	**0.0560**	**0.2026**	**1,465.4253**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	4.4790	50.4124	20.0053	0.0570		2.1590	2.1590		1.9862	1.9862		5,517.2355	5,517.2355	1.7844		5,561.8451
Total	**4.4790**	**50.4124**	**20.0053**	**0.0570**	**21.7780**	**2.1590**	**23.9370**	**10.3315**	**1.9862**	**12.3177**		**5,517.2355**	**5,517.2355**	**1.7844**		**5,561.8451**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0101	0.2758	0.0998	1.1200e-003	0.0384	3.1400e-003	0.0416	0.0111	3.0000e-003	0.0141		120.1737	120.1737	3.2200e-003	0.0178	125.5572
Worker	0.0732	0.0508	0.6091	1.6800e-003	0.2012	1.0600e-003	0.2023	0.0534	9.7000e-004	0.0543		171.1060	171.1060	4.9000e-003	4.8500e-003	172.6750
Total	**0.0833**	**0.3266**	**0.7089**	**2.8000e-003**	**0.2396**	**4.2000e-003**	**0.2438**	**0.0644**	**3.9700e-003**	**0.0684**		**291.2797**	**291.2797**	**8.1200e-003**	**0.0226**	**298.2322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4934	0.0000	8.4934	4.0293	0.0000	4.0293			0.0000			0.0000
Off-Road	4.4790	50.4124	20.0053	0.0570		2.1590	2.1590		1.9862	1.9862	0.0000	5,517.2355	5,517.2355	1.7844		5,561.8451
Total	**4.4790**	**50.4124**	**20.0053**	**0.0570**	**8.4934**	**2.1590**	**10.6524**	**4.0293**	**1.9862**	**6.0155**	**0.0000**	**5,517.2355**	**5,517.2355**	**1.7844**		**5,561.8451**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0101	0.2758	0.0998	1.1200e-003	0.0384	3.1400e-003	0.0416	0.0111	3.0000e-003	0.0141		120.1737	120.1737	3.2200e-003	0.0178	125.5572
Worker	0.0732	0.0508	0.6091	1.6800e-003	0.2012	1.0600e-003	0.2023	0.0534	9.7000e-004	0.0543		171.1060	171.1060	4.9000e-003	4.8500e-003	172.6750
Total	**0.0833**	**0.3266**	**0.7089**	**2.8000e-003**	**0.2396**	**4.2000e-003**	**0.2438**	**0.0644**	**3.9700e-003**	**0.0684**		**291.2797**	**291.2797**	**8.1200e-003**	**0.0226**	**298.2322**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.2641	0.0000	10.2641	3.7683	0.0000	3.7683			0.0000			0.0000
Off-Road	4.2792	47.5079	29.1953	0.0715		1.9081	1.9081		1.7554	1.7554		6,926.9974	6,926.9974	2.2403		6,983.0056
Total	**4.2792**	**47.5079**	**29.1953**	**0.0715**	**10.2641**	**1.9081**	**12.1722**	**3.7683**	**1.7554**	**5.5237**		**6,926.9974**	**6,926.9974**	**2.2403**		**6,983.0056**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0101	0.2758	0.0998	1.1200e-003	0.0384	3.1400e-003	0.0416	0.0111	3.0000e-003	0.0141		120.1737	120.1737	3.2200e-003	0.0178	125.5572
Worker	0.0814	0.0564	0.6768	1.8700e-003	0.2236	1.1700e-003	0.2247	0.0593	1.0800e-003	0.0604		190.1178	190.1178	5.4400e-003	5.3900e-003	191.8611
Total	**0.0914**	**0.3323**	**0.7766**	**2.9900e-003**	**0.2620**	**4.3100e-003**	**0.2663**	**0.0704**	**4.0800e-003**	**0.0744**		**310.2915**	**310.2915**	**8.6600e-003**	**0.0232**	**317.4183**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0030	0.0000	4.0030	1.4696	0.0000	1.4696			0.0000			0.0000
Off-Road	4.2792	47.5079	29.1953	0.0715		1.9081	1.9081		1.7554	1.7554	0.0000	6,926.9974	6,926.9974	2.2403		6,983.0056
Total	**4.2792**	**47.5079**	**29.1953**	**0.0715**	**4.0030**	**1.9081**	**5.9111**	**1.4696**	**1.7554**	**3.2251**	**0.0000**	**6,926.9974**	**6,926.9974**	**2.2403**		**6,983.0056**

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

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0101	0.2758	0.0998	1.1200e-003	0.0384	3.1400e-003	0.0416	0.0111	3.0000e-003	0.0141		120.1737	120.1737	3.2200e-003	0.0178	125.5572
Worker	0.0814	0.0564	0.6768	1.8700e-003	0.2236	1.1700e-003	0.2247	0.0593	1.0800e-003	0.0604		190.1178	190.1178	5.4400e-003	5.3900e-003	191.8611
Total	**0.0914**	**0.3323**	**0.7766**	**2.9900e-003**	**0.2620**	**4.3100e-003**	**0.2663**	**0.0704**	**4.0800e-003**	**0.0744**		**310.2915**	**310.2915**	**8.6600e-003**	**0.0232**	**317.4183**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1340	3.6776	1.3309	0.0150	0.5126	0.0418	0.5544	0.1476	0.0400	0.1876		1,602.3161	1,602.3161	0.0430	0.2373	1,674.0960
Worker	0.8381	0.5812	6.9710	0.0193	2.3026	0.0121	2.3147	0.6107	0.0111	0.6218		1,958.2134	1,958.2134	0.0561	0.0556	1,976.1696
Total	**0.9721**	**4.2588**	**8.3019**	**0.0342**	**2.8151**	**0.0539**	**2.8690**	**0.7583**	**0.0511**	**0.8094**		**3,560.5295**	**3,560.5295**	**0.0991**	**0.2928**	**3,650.2657**

Mitigated Construction On-Site

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

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1340	3.6776	1.3309	0.0150	0.5126	0.0418	0.5544	0.1476	0.0400	0.1876		1,602.3161	1,602.3161	0.0430	0.2373	1,674.0960
Worker	0.8381	0.5812	6.9710	0.0193	2.3026	0.0121	2.3147	0.6107	0.0111	0.6218		1,958.2134	1,958.2134	0.0561	0.0556	1,976.1696
Total	**0.9721**	**4.2588**	**8.3019**	**0.0342**	**2.8151**	**0.0539**	**2.8690**	**0.7583**	**0.0511**	**0.8094**		**3,560.5295**	**3,560.5295**	**0.0991**	**0.2928**	**3,650.2657**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.5 Building Construction - 2023

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	0.0871	2.9639	1.2138	0.0144	0.5125	0.0212	0.5337	0.1476	0.0203	0.1678		1,539.0688	1,539.0688	0.0398	0.2274	1,607.8390
Worker	0.7759	0.5111	6.3939	0.0186	2.3026	0.0114	2.3140	0.6107	0.0105	0.6211		1,906.7478	1,906.7478	0.0503	0.0511	1,923.2284
Total	**0.8630**	**3.4750**	**7.6076**	**0.0330**	**2.8151**	**0.0326**	**2.8477**	**0.7583**	**0.0307**	**0.7890**		**3,445.8166**	**3,445.8166**	**0.0901**	**0.2785**	**3,531.0674**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.5 Building Construction - 2023

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	0.0871	2.9639	1.2138	0.0144	0.5125	0.0212	0.5337	0.1476	0.0203	0.1678		1,539.0688	1,539.0688	0.0398	0.2274	1,607.8390
Worker	0.7759	0.5111	6.3939	0.0186	2.3026	0.0114	2.3140	0.6107	0.0105	0.6211		1,906.7478	1,906.7478	0.0503	0.0511	1,923.2284
Total	**0.8630**	**3.4750**	**7.6076**	**0.0330**	**2.8151**	**0.0326**	**2.8477**	**0.7583**	**0.0307**	**0.7890**		**3,445.8166**	**3,445.8166**	**0.0901**	**0.2785**	**3,531.0674**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1394**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

3.6 Paving - 2023

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	0.0565	0.0372	0.4656	1.3600e-003	0.1677	8.3000e-004	0.1685	0.0445	7.6000e-004	0.0452		138.8409	138.8409	3.6600e-003	3.7200e-003	140.0409
Total	**0.0565**	**0.0372**	**0.4656**	**1.3600e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.6000e-004**	**0.0452**		**138.8409**	**138.8409**	**3.6600e-003**	**3.7200e-003**	**140.0409**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1394**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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

3.6 Paving - 2023

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	0.0565	0.0372	0.4656	1.3600e-003	0.1677	8.3000e-004	0.1685	0.0445	7.6000e-004	0.0452		138.8409	138.8409	3.6600e-003	3.7200e-003	140.0409
Total	**0.0565**	**0.0372**	**0.4656**	**1.3600e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.6000e-004**	**0.0452**		**138.8409**	**138.8409**	**3.6600e-003**	**3.7200e-003**	**140.0409**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.9960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**19.1876**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

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	0.1544	0.1017	1.2726	3.7100e-003	0.4583	2.2600e-003	0.4606	0.1215	2.0800e-003	0.1236		379.4984	379.4984	0.0100	0.0102	382.7785
Total	**0.1544**	**0.1017**	**1.2726**	**3.7100e-003**	**0.4583**	**2.2600e-003**	**0.4606**	**0.1215**	**2.0800e-003**	**0.1236**		**379.4984**	**379.4984**	**0.0100**	**0.0102**	**382.7785**

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	18.9960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**19.1876**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

3.7 Architectural Coating - 2023

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	0.1544	0.1017	1.2726	3.7100e-003	0.4583	2.2600e-003	0.4606	0.1215	2.0800e-003	0.1236		379.4984	379.4984	0.0100	0.0102	382.7785
Total	**0.1544**	**0.1017**	**1.2726**	**3.7100e-003**	**0.4583**	**2.2600e-003**	**0.4606**	**0.1215**	**2.0800e-003**	**0.1236**		**379.4984**	**379.4984**	**0.0100**	**0.0102**	**382.7785**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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	1.0764	15.5457	11.5047	0.0936	4.7694	0.1603	4.9298	1.3147	0.1531	1.4678		10,006.5076	10,006.5076	0.3676	1.3027	10,403.9163
Unmitigated	1.2581	19.9414	14.2675	0.1226	6.2861	0.2108	6.4969	1.7328	0.2012	1.9340		13,107.2066	13,107.2066	0.4716	1.7008	13,625.8182

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	112.99	112.99	112.99	1,645,198	1,248,255
Unrefrigerated Warehouse-No Rail	251.70	251.70	251.70	1,078,696	818,435
Total	364.69	364.69	364.69	2,723,895	2,066,689

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
Parking Lot	16.60	40.00	6.90	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.221000	0.177000	0.602000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.579000	0.059000	0.185000	0.150000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.027000	0.000000	0.000000

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
NaturalGas Unmitigated	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076

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					
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	1428.92	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Total		**0.0154**	**0.1401**	**0.1177**	**8.4000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**168.1086**	**168.1086**	**3.2200e-003**	**3.0800e-003**	**169.1076**

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					
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	1.42892	0.0154	0.1401	0.1177	8.4000e-004		0.0107	0.0107		0.0107	0.0107		168.1086	168.1086	3.2200e-003	3.0800e-003	169.1076
Total		**0.0154**	**0.1401**	**0.1177**	**8.4000e-004**		**0.0107**	**0.0107**		**0.0107**	**0.0107**		**168.1086**	**168.1086**	**3.2200e-003**	**3.0800e-003**	**169.1076**

6.0 Area Detail

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Winter

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Unmitigated	5.8982	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618

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	0.6763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2193					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Total	**5.8981**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0580**	**0.0580**	**1.5000e-004**		**0.0618**

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	0.6763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2193					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-003	2.5000e-004	0.0270	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0580	0.0580	1.5000e-004		0.0618
Total	**5.8981**	**2.5000e-004**	**0.0270**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0580**	**0.0580**	**1.5000e-004**		**0.0618**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	4	7.00	260	89	0.20	CNG

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.0510	2.4827	32.4407	5.3500e-003		0.0400	0.0400		0.0400	0.0400	0.0000	676.7805	676.7805	0.2189		682.2526
Total	**0.0510**	**2.4827**	**32.4407**	**5.3500e-003**		**0.0400**	**0.0400**		**0.0400**	**0.0400**	**0.0000**	**676.7805**	**676.7805**	**0.2189**		**682.2526**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

EMFAC2017 Model Printouts

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
SOUTH CO.	2022	HHDT	Aggregatec	Aggregatec	GAS	77.19581	7790.40352	1544.534	1.875688287
SOUTH CO.	2022	LDA	Aggregatec	Aggregatec	GAS	6370883	246404319.3	30101253	7989.700531
SOUTH CO.	2022	LDT1	Aggregatec	Aggregatec	GAS	716397.4	26563674.69	3305301	1003.18171
SOUTH CO.	2022	LDT2	Aggregatec	Aggregatec	GAS	2182002	82381240.23	10234301	3339.886942
SOUTH CO.	2022	LHDT1	Aggregatec	Aggregatec	GAS	171358.6	6138928.512	2552988	583.2281345
SOUTH CO.	2022	LHDT2	Aggregatec	Aggregatec	GAS	29049.29	1009215.767	432791.1	110.1260053
SOUTH CO.	2022	MCY	Aggregatec	Aggregatec	GAS	288756.3	1994249.265	577512.7	54.92216124
SOUTH CO.	2022	MDV	Aggregatec	Aggregatec	GAS	1530646	54105469.86	7077024	2704.447563
SOUTH CO.	2022	MH	Aggregatec	Aggregatec	GAS	34090.76	324253.0827	3410.439	62.96118679
SOUTH CO.	2022	MHDT	Aggregatec	Aggregatec	GAS	24783.34	1316472.619	495865	259.391887
SOUTH CO.	2022	OBUS	Aggregatec	Aggregatec	GAS	5832.051	240794.901	116687.7	47.77312679
SOUTH CO.	2022	SBUS	Aggregatec	Aggregatec	GAS	2563.073	102707.6059	10252.29	11.26572543
SOUTH CO.	2022	UBUS	Aggregatec	Aggregatec	GAS	952.146	89255.99818	3808.584	18.40085629

vehicle miles per day (All Categories)	420678372	16,187	1,000 gall per day
		16,187,162	gallons per day
Fleet Avg Miles per gallon	26.0		

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
SOUTH CO.	2022	HHDT	Aggregate	Aggregate	DSL	98507.93	11795119.18	994224.5278	1762.986535
SOUTH CO.	2022	LDA	Aggregate	Aggregate	DSL	57443	2304136.238	272823.0302	47.39159146
SOUTH CO.	2022	LDT1	Aggregate	Aggregate	DSL	378.1209	8809.098622	1319.110799	0.391172549
SOUTH CO.	2022	LDT2	Aggregate	Aggregate	DSL	13854.2	592642.9638	68308.95137	16.65070839
SOUTH CO.	2022	LHDT1	Aggregate	Aggregate	DSL	115788.9	4681447.455	1456478.318	217.1134019
SOUTH CO.	2022	LHDT2	Aggregate	Aggregate	DSL	45909.32	1809192.293	577481.5034	92.8866097
SOUTH CO.	2022	MDV	Aggregate	Aggregate	DSL	32417.61	1305872.927	158948.6889	47.80332863
SOUTH CO.	2022	MH	Aggregate	Aggregate	DSL	12198.84	117488.268	1219.883938	11.12023591
SOUTH CO.	2022	MHDT	Aggregate	Aggregate	DSL	119796	7716034.126	1201941.571	720.1602731
SOUTH CO.	2022	OBUS	Aggregate	Aggregate	DSL	4149.674	316404.315	40441.57981	37.45917989
SOUTH CO.	2022	SBUS	Aggregate	Aggregate	DSL	6354.465	200786.3158	73329.64442	26.4174734
SOUTH CO.	2022	UBUS	Aggregate	Aggregate	DSL	14.14142	1478.085683	56.56567323	0.246796198

Diesel Truck (HHDT, MDV, MHDT) vehicle miles per day	20,817,026	2,531	1,000 gall per day
		2,530,950	gallons per day
Diesel Truck Fleet Avg Miles per gallon	8.2		

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calendar year	season month	sub_area	vehicle class	fuel	tempe	relative humidity	process	speed time	pollutant	emission rate
2023	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.048205
2023	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.016652
2023	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004982
2023	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000991
2023	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.009399
2023	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008777
2023	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004484
2023	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000866
2023	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.009576
2023	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.004291
2023	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791841
2023	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2023	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.079945
2023	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2023	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078334
2023	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.015552
2023	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027433
2023	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086228
2023	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.01205
2023	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129908
2023	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.063031
2023	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2023	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2024	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.045028
2024	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.015802
2024	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004926
2024	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000974
2024	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.009348
2024	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008893
2024	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004489
2024	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000864
2024	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.009024
2024	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.004103
2024	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791262
2024	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2024	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.079957
2024	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2024	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078328
2024	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.01483
2024	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027427
2024	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086244
2024	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012053
2024	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129888

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	relative humidity	process	speed time	pollutant	emission rate
2024	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.057624
2024	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2024	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2025	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.042095
2025	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.015013
2025	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004888
2025	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000962
2025	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.009235
2025	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008925
2025	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004514
2025	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000866
2025	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.008514
2025	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003933
2025	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791555
2025	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2025	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.079968
2025	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2025	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.07832
2025	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.014209
2025	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027429
2025	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086238
2025	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012055
2025	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129868
2025	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.052635
2025	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2025	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2026	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.039322
2026	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.01426
2026	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004863
2026	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000953
2026	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.009093
2026	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008908
2026	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.00455
2026	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000872
2026	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.008077
2026	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003779
2026	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791961
2026	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2026	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.079978
2026	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2026	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.07831
2026	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.013664
2026	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027438

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	relative humidity	process	speed time	pollutant	emission rate
2026	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086214
2026	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012057
2026	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129847
2026	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.048338
2026	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2026	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2027	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.036739
2027	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.013553
2027	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004863
2027	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.00095
2027	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008928
2027	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008865
2027	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004587
2027	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000878
2027	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.007693
2027	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003641
2027	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.792008
2027	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2027	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.079987
2027	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2027	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078298
2027	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.013086
2027	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027446
2027	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.08619
2027	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.01206
2027	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129826
2027	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.044553
2027	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2027	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2028	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.034364
2028	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.012895
2028	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004869
2028	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000948
2028	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008804
2028	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008828
2028	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004626
2028	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000884
2028	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.007422
2028	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003523
2028	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.792393
2028	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2028	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.079995
2028	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	relative humidity	process	speed time	pollutant	emission rate
2028	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078286
2028	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.012697
2028	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027463
2028	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086141
2028	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012062
2028	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129806
2028	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.041513
2028	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2028	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2029	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.032167
2029	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.012281
2029	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004874
2029	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000944
2029	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008666
2029	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008775
2029	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004662
2029	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.00089
2029	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.007109
2029	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003419
2029	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791921
2029	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2029	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080003
2029	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2029	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078275
2029	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.012283
2029	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027482
2029	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086088
2029	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012064
2029	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129788
2029	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.038425
2029	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2029	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2030	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.030175
2030	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.011717
2030	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004872
2030	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000939
2030	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008532
2030	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008718
2030	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004698
2030	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000897
2030	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006902
2030	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003333
2030	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791719

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	relative humidity	process	speed time	pollutant	emission rate
2030	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2030	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080009
2030	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2030	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078263
2030	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.011879
2030	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027503
2030	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.086027
2030	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012066
2030	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129774
2030	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.035948
2030	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2030	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2031	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.02839
2031	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.011206
2031	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004867
2031	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000933
2031	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008412
2031	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008667
2031	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004732
2031	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000903
2031	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006711
2031	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.00326
2031	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791242
2031	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2031	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080015
2031	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2031	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078251
2031	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.011528
2031	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027519
2031	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085981
2031	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012068
2031	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129761
2031	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.033764
2031	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2031	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2032	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.026818
2032	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.01075
2032	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004865
2032	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000928
2032	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008319
2032	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008625
2032	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004759
2032	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000908

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	humidity	process	speed time	pollutant	emission rate
2032	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006524
2032	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003193
2032	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791768
2032	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2032	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.08002
2032	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2032	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078238
2032	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.011322
2032	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027536
2032	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085933
2032	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012069
2032	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.12975
2032	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.031668
2032	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2032	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2033	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.02543
2033	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.010342
2033	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004854
2033	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000926
2033	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008228
2033	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008584
2033	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004782
2033	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000913
2033	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006404
2033	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003139
2033	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.79231
2033	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2033	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080024
2033	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2033	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078226
2033	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.011129
2033	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027554
2033	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.08588
2033	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.01207
2033	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129741
2033	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.030319
2033	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2033	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2034	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.024156
2034	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.009962
2034	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.00482
2034	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.00092
2034	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008131

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2034	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008534
2034	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004801
2034	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000916
2034	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006298
2034	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003095
2034	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791977
2034	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2034	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080027
2034	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2034	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078215
2034	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010938
2034	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027575
2034	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085823
2034	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012071
2034	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129734
2034	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.028852
2034	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2034	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2035	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.022928
2035	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.009593
2035	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004793
2035	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000915
2035	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.008044
2035	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008487
2035	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.00482
2035	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.00092
2035	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006209
2035	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003059
2035	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791354
2035	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2035	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.08003
2035	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2035	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078205
2035	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010771
2035	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027595
2035	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085764
2035	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012071
2035	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129728
2035	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.027793
2035	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2035	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2036	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.02196
2036	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.009299

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2036	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004804
2036	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000917
2036	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007979
2036	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008457
2036	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004837
2036	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000923
2036	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006151
2036	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003033
2036	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.791903
2036	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2036	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080033
2036	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2036	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078195
2036	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.01065
2036	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.02762
2036	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085694
2036	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012072
2036	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129724
2036	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.026988
2036	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2036	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2037	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.021052
2037	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.009021
2037	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004811
2037	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000918
2037	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007934
2037	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008435
2037	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.00485
2037	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000926
2037	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.006072
2037	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.003009
2037	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.792455
2037	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2037	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080036
2037	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2037	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078187
2037	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010556
2037	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027645
2037	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085622
2037	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012072
2037	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.12972
2037	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.026059
2037	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036

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2037	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2038	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.020253
2038	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.008771
2038	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.00482
2038	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.00092
2038	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007899
2038	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.00842
2038	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004861
2038	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000928
2038	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005956
2038	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002982
2038	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.792845
2038	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2038	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080037
2038	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2038	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078179
2038	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010471
2038	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.02767
2038	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085549
2038	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2038	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129717
2038	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.025117
2038	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2038	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2039	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.019536
2039	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.008546
2039	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004824
2039	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000921
2039	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007875
2039	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008413
2039	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004869
2039	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000929
2039	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005826
2039	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002949
2039	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.793586
2039	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2039	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080038
2039	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2039	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078172
2039	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010391
2039	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027695
2039	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085477
2039	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073

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2039	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129715
2039	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.024088
2039	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2039	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2040	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.018922
2040	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.008351
2040	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004827
2040	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000921
2040	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007857
2040	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008411
2040	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004876
2040	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.00093
2040	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005658
2040	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002906
2040	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.794221
2040	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2040	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080041
2040	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2040	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078167
2040	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010317
2040	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027721
2040	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085404
2040	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2040	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129713
2040	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.022819
2040	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2040	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2041	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.018414
2041	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.008186
2041	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.00484
2041	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000924
2041	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.00784
2041	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.00841
2041	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004881
2041	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000931
2041	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005493
2041	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002856
2041	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.794735
2041	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2041	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080045
2041	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2041	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078162
2041	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010251

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2041	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027735
2041	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085365
2041	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2041	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129712
2041	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.021586
2041	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2041	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2042	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.017967
2042	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.008041
2042	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004849
2042	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000925
2042	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007833
2042	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008414
2042	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004886
2042	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000932
2042	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005344
2042	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002804
2042	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.795197
2042	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2042	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080049
2042	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2042	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078158
2042	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010202
2042	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027757
2042	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085302
2042	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2042	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129711
2042	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.020367
2042	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2042	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2043	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.017622
2043	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007927
2043	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004857
2043	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000927
2043	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007827
2043	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.00842
2043	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004891
2043	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000933
2043	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005204
2043	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002754
2043	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.795537
2043	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2043	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080053

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	relative humidity	process	speed time	pollutant	emission rate
2043	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2043	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078155
2043	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010162
2043	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027778
2043	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.08524
2043	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2043	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129711
2043	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.019094
2043	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2043	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2044	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.017271
2044	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007815
2044	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004861
2044	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000928
2044	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007821
2044	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008427
2044	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004894
2044	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000934
2044	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.005089
2044	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.00271
2044	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.795944
2044	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2044	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080054
2044	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2044	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078153
2044	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010118
2044	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.0278
2044	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085178
2044	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2044	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.12971
2044	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.01797
2044	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2044	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2045	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.01698
2045	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007721
2045	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004864
2045	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000928
2045	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007815
2045	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008434
2045	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004897
2045	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000935
2045	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.004989
2045	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002672

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	relative humidity	process	speed time	pollutant	emission rate
2045	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.796279
2045	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2045	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080054
2045	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2045	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078153
2045	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.01008
2045	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027822
2045	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085117
2045	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012073
2045	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.12971
2045	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.016873
2045	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2045	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2046	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.016703
2046	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007633
2046	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004865
2046	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000928
2046	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007808
2046	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.00844
2046	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004899
2046	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000935
2046	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.004854
2046	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002633
2046	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.796621
2046	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2046	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080054
2046	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2046	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078153
2046	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.010038
2046	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027839
2046	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085067
2046	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012074
2046	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.12971
2046	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.015642
2046	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2046	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2047	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.01648
2047	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007562
2047	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004866
2047	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000929
2047	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007802
2047	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008445
2047	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004901

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calendar year	season month	sub_area	vehicle class	fuel	relative tempe	humidity	process	speed time	pollutant	emission rate
2047	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000935
2047	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.004536
2047	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002574
2047	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.796892
2047	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2047	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080055
2047	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2047	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078153
2047	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.009999
2047	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027856
2047	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.085018
2047	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012074
2047	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129709
2047	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.01348
2047	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2047	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2048	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.016266
2048	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007494
2048	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004865
2048	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000928
2048	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007804
2048	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.00845
2048	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004903
2048	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000936
2048	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.004478
2048	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002524
2048	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.79717
2048	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2048	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080055
2048	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2048	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078154
2048	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.009976
2048	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027873
2048	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.08497
2048	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012074
2048	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129709
2048	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.012594
2048	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2048	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2049	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.016077
2049	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.007435
2049	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004876
2049	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000931

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calendar year	season month	sub_area	vehicle class	fuel	tempe	relative humidity	process	speed time	pollutant	emission rate
2049	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007808
2049	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008455
2049	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004904
2049	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000936
2049	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.004429
2049	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002481
2049	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.797424
2049	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2049	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.080054
2049	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2049	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078154
2049	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.009961
2049	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.02789
2049	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.084922
2049	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012074
2049	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129709
2049	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.011839
2049	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2049	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174
2050	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	10	PM10	0.015862
2050	Annual	San Bernardin	Truck1	Dsl	52	50	RUNEX	40	PM10	0.00737
2050	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	10	PM10	0.004882
2050	Annual	San Bernardin	Truck1	Gas	52	50	RUNEX	40	PM10	0.000932
2050	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	10	PM10	0.007813
2050	Annual	San Bernardin	Truck2	Dsl	52	50	RUNEX	40	PM10	0.008461
2050	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	10	PM10	0.004905
2050	Annual	San Bernardin	Truck2	Gas	52	50	RUNEX	40	PM10	0.000936
2050	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	10	PM10	0.004393
2050	Annual	San Bernardin	Truck2	NG	52	50	RUNEX	40	PM10	0.002449
2050	Annual	San Bernardin	Truck1	Dsl			IDLEX		PM10	0.797745
2050	Annual	San Bernardin	Truck1	Dsl			PMTW		PM10	0.012
2050	Annual	San Bernardin	Truck1	Dsl			PMBW		PM10	0.08005
2050	Annual	San Bernardin	Truck1	Gas			PMTW		PM10	0.008
2050	Annual	San Bernardin	Truck1	Gas			PMBW		PM10	0.078154
2050	Annual	San Bernardin	Truck2	Dsl			IDLEX		PM10	0.009943
2050	Annual	San Bernardin	Truck2	Dsl			PMTW		PM10	0.027906
2050	Annual	San Bernardin	Truck2	Dsl			PMBW		PM10	0.084876
2050	Annual	San Bernardin	Truck2	Gas			PMTW		PM10	0.012074
2050	Annual	San Bernardin	Truck2	Gas			PMBW		PM10	0.129709
2050	Annual	San Bernardin	Truck2	NG			IDLEX		PM10	0.01126
2050	Annual	San Bernardin	Truck2	NG			PMTW		PM10	0.036
2050	Annual	San Bernardin	Truck2	NG			PMBW		PM10	0.06174

APPENDIX C

AERMOD Model Years 2023 – 2025 Operational PM10 Printouts

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 2/7/2022
** File: C:\Vista Env\2021\21060 SB Co\AERMOD\DPM2023\DPM2023.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Slover / Alder Ave Industrial - 2023-2025 DPM
   TITLETWO PM10
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2035210 San_Bernardino_Co
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL DPM2023.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY1
** DESCRSRC Project DWY 1 - Alder Ave
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 6.7E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461413.126, 3769172.571, 329.00, 0.00, 1.70
** 461470.310, 3769171.735, 328.44, 0.00, 1.70
** 461553.714, 3769149.977, 327.87, 0.00, 1.70
** ------------------------------------------------------------------------
   LOCATION L0000329     VOLUME   461414.955 3769172.545 328.92
   LOCATION L0000330     VOLUME   461418.612 3769172.491 328.86
   LOCATION L0000331     VOLUME   461422.269 3769172.438 328.80
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   LOCATION L0000332     VOLUME   461425.926 3769172.384 328.75
   LOCATION L0000333     VOLUME   461429.583 3769172.331 328.69
   LOCATION L0000334     VOLUME   461433.241 3769172.277 328.63
   LOCATION L0000335     VOLUME   461436.898 3769172.224 328.57
   LOCATION L0000336     VOLUME   461440.555 3769172.170 328.53
   LOCATION L0000337     VOLUME   461444.212 3769172.117 328.53
   LOCATION L0000338     VOLUME   461447.869 3769172.063 328.52
   LOCATION L0000339     VOLUME   461451.527 3769172.009 328.52
   LOCATION L0000340     VOLUME   461455.184 3769171.956 328.52
   LOCATION L0000341     VOLUME   461458.841 3769171.902 328.52
   LOCATION L0000342     VOLUME   461462.498 3769171.849 328.52
   LOCATION L0000343     VOLUME   461466.156 3769171.795 328.51
   LOCATION L0000344     VOLUME   461469.813 3769171.742 328.51
   LOCATION L0000345     VOLUME   461473.368 3769170.937 328.43
   LOCATION L0000346     VOLUME   461476.907 3769170.014 328.34
   LOCATION L0000347     VOLUME   461480.446 3769169.090 328.27
   LOCATION L0000348     VOLUME   461483.985 3769168.167 328.21
   LOCATION L0000349     VOLUME   461487.525 3769167.244 328.15
   LOCATION L0000350     VOLUME   461491.064 3769166.320 328.09
   LOCATION L0000351     VOLUME   461494.603 3769165.397 328.05
   LOCATION L0000352     VOLUME   461498.142 3769164.474 328.01
   LOCATION L0000353     VOLUME   461501.681 3769163.551 328.00
   LOCATION L0000354     VOLUME   461505.220 3769162.627 328.00
   LOCATION L0000355     VOLUME   461508.759 3769161.704 328.00
   LOCATION L0000356     VOLUME   461512.299 3769160.781 328.00
   LOCATION L0000357     VOLUME   461515.838 3769159.858 328.00
   LOCATION L0000358     VOLUME   461519.377 3769158.934 328.00
   LOCATION L0000359     VOLUME   461522.916 3769158.011 328.00
   LOCATION L0000360     VOLUME   461526.455 3769157.088 328.00
   LOCATION L0000361     VOLUME   461529.994 3769156.165 328.00
   LOCATION L0000362     VOLUME   461533.534 3769155.241 328.00
   LOCATION L0000363     VOLUME   461537.073 3769154.318 327.98
   LOCATION L0000364     VOLUME   461540.612 3769153.395 327.96
   LOCATION L0000365     VOLUME   461544.151 3769152.472 327.94
   LOCATION L0000366     VOLUME   461547.690 3769151.548 327.90
   LOCATION L0000367     VOLUME   461551.229 3769150.625 327.86
** End of LINE VOLUME Source ID = DWY1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY2
** DESCRSRC Project Driveway 2 - Slover Ave West
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 3.72E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461531.677, 3769225.292, 328.91, 0.00, 1.70
** 461531.677, 3769168.387, 328.00, 0.00, 1.70
** 461552.877, 3769160.298, 327.96, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000368     VOLUME   461531.677 3769223.463 328.95
   LOCATION L0000369     VOLUME   461531.677 3769219.806 328.94
```

```
   LOCATION L0000370     VOLUME   461531.677 3769216.148 328.93
   LOCATION L0000371     VOLUME   461531.677 3769212.490 328.81
   LOCATION L0000372     VOLUME   461531.677 3769208.833 328.70
   LOCATION L0000373     VOLUME   461531.677 3769205.175 328.58
   LOCATION L0000374     VOLUME   461531.677 3769201.518 328.47
   LOCATION L0000375     VOLUME   461531.677 3769197.860 328.36
   LOCATION L0000376     VOLUME   461531.677 3769194.202 328.24
   LOCATION L0000377     VOLUME   461531.677 3769190.545 328.13
   LOCATION L0000378     VOLUME   461531.677 3769186.887 328.02
   LOCATION L0000379     VOLUME   461531.677 3769183.230 328.00
   LOCATION L0000380     VOLUME   461531.677 3769179.572 328.00
   LOCATION L0000381     VOLUME   461531.677 3769175.914 328.00
   LOCATION L0000382     VOLUME   461531.677 3769172.257 328.00
   LOCATION L0000383     VOLUME   461531.677 3769168.599 328.00
   LOCATION L0000384     VOLUME   461534.897 3769167.159 328.00
   LOCATION L0000385     VOLUME   461538.314 3769165.855 328.00
   LOCATION L0000386     VOLUME   461541.731 3769164.551 328.00
   LOCATION L0000387     VOLUME   461545.148 3769163.247 328.00
   LOCATION L0000388     VOLUME   461548.566 3769161.943 328.00
   LOCATION L0000389     VOLUME   461551.983 3769160.639 328.00
** End of LINE VOLUME Source ID = DWY2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY3
** DESCRSRC Project Driveway 3 - Slover Ave East
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 7.96E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461673.660, 3769226.129, 328.00, 0.00, 1.70
** 461673.102, 3769173.408, 327.64, 0.00, 1.70
** 461556.782, 3769154.719, 327.97, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000390     VOLUME   461673.641 3769224.300 328.00
   LOCATION L0000391     VOLUME   461673.602 3769220.643 328.00
   LOCATION L0000392     VOLUME   461673.563 3769216.985 328.00
   LOCATION L0000393     VOLUME   461673.525 3769213.328 328.00
   LOCATION L0000394     VOLUME   461673.486 3769209.670 328.00
   LOCATION L0000395     VOLUME   461673.447 3769206.013 328.00
   LOCATION L0000396     VOLUME   461673.408 3769202.356 328.00
   LOCATION L0000397     VOLUME   461673.370 3769198.698 328.00
   LOCATION L0000398     VOLUME   461673.331 3769195.041 328.00
   LOCATION L0000399     VOLUME   461673.292 3769191.383 328.00
   LOCATION L0000400     VOLUME   461673.254 3769187.726 328.00
   LOCATION L0000401     VOLUME   461673.215 3769184.069 327.92
   LOCATION L0000402     VOLUME   461673.176 3769180.411 327.80
   LOCATION L0000403     VOLUME   461673.137 3769176.754 327.68
   LOCATION L0000404     VOLUME   461672.794 3769173.359 327.57
   LOCATION L0000405     VOLUME   461669.183 3769172.779 327.55
   LOCATION L0000406     VOLUME   461665.572 3769172.198 327.53
   LOCATION L0000407     VOLUME   461661.960 3769171.618 327.51
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   LOCATION L0000408     VOLUME   461658.349 3769171.038 327.49
   LOCATION L0000409     VOLUME   461654.738 3769170.458 327.47
   LOCATION L0000410     VOLUME   461651.127 3769169.877 327.45
   LOCATION L0000411     VOLUME   461647.515 3769169.297 327.47
   LOCATION L0000412     VOLUME   461643.904 3769168.717 327.52
   LOCATION L0000413     VOLUME   461640.293 3769168.137 327.58
   LOCATION L0000414     VOLUME   461636.681 3769167.557 327.64
   LOCATION L0000415     VOLUME   461633.070 3769166.976 327.71
   LOCATION L0000416     VOLUME   461629.459 3769166.396 327.78
   LOCATION L0000417     VOLUME   461625.848 3769165.816 327.86
   LOCATION L0000418     VOLUME   461622.236 3769165.236 327.94
   LOCATION L0000419     VOLUME   461618.625 3769164.655 328.00
   LOCATION L0000420     VOLUME   461615.014 3769164.075 328.00
   LOCATION L0000421     VOLUME   461611.402 3769163.495 328.00
   LOCATION L0000422     VOLUME   461607.791 3769162.915 328.00
   LOCATION L0000423     VOLUME   461604.180 3769162.334 328.00
   LOCATION L0000424     VOLUME   461600.569 3769161.754 328.00
   LOCATION L0000425     VOLUME   461596.957 3769161.174 328.00
   LOCATION L0000426     VOLUME   461593.346 3769160.594 328.00
   LOCATION L0000427     VOLUME   461589.735 3769160.014 328.00
   LOCATION L0000428     VOLUME   461586.123 3769159.433 328.00
   LOCATION L0000429     VOLUME   461582.512 3769158.853 328.00
   LOCATION L0000430     VOLUME   461578.901 3769158.273 328.00
   LOCATION L0000431     VOLUME   461575.290 3769157.693 328.00
   LOCATION L0000432     VOLUME   461571.678 3769157.112 328.00
   LOCATION L0000433     VOLUME   461568.067 3769156.532 328.00
   LOCATION L0000434     VOLUME   461564.456 3769155.952 327.99
   LOCATION L0000435     VOLUME   461560.844 3769155.372 327.97
   LOCATION L0000436     VOLUME   461557.233 3769154.791 327.95
** End of LINE VOLUME Source ID = DWY3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = ALDER
** DESCRSRC Alder Ave - DWY 1 to Slover Ave
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 1.49E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 2
** 461405.873, 3769224.734, 329.00, 0.00, 1.70
** 461405.873, 3769172.014, 329.00, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000437     VOLUME   461405.873 3769222.905 329.22
   LOCATION L0000438     VOLUME   461405.873 3769219.248 329.10
   LOCATION L0000439     VOLUME   461405.873 3769215.590 329.00
   LOCATION L0000440     VOLUME   461405.873 3769211.932 329.00
   LOCATION L0000441     VOLUME   461405.873 3769208.275 329.00
   LOCATION L0000442     VOLUME   461405.873 3769204.617 329.00
   LOCATION L0000443     VOLUME   461405.873 3769200.960 329.00
   LOCATION L0000444     VOLUME   461405.873 3769197.302 329.00
   LOCATION L0000445     VOLUME   461405.873 3769193.644 329.00
   LOCATION L0000446     VOLUME   461405.873 3769189.987 329.00
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   LOCATION L0000447     VOLUME   461405.873 3769186.329 329.00
   LOCATION L0000448     VOLUME   461405.873 3769182.672 329.00
   LOCATION L0000449     VOLUME   461405.873 3769179.014 329.00
   LOCATION L0000450     VOLUME   461405.873 3769175.356 329.00
** End of LINE VOLUME Source ID = ALDER
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLOVER
** DESCRSRC Slover Ave
** PREFIX
** Length of Side = 12.19
** Configuration = Adjacent
** Emission Rate = 5.03E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 5
** 460972.339, 3769234.573, 331.00, 0.00, 5.67
** 461117.706, 3769238.668, 330.83, 0.00, 5.67
** 461377.729, 3769233.550, 329.63, 0.00, 5.67
** 461809.736, 3769235.597, 328.00, 0.00, 5.67
** 462162.918, 3769234.573, 327.68, 0.00, 5.67
** ----------------------------------------------------------------------
   LOCATION L0000451     VOLUME   460978.432 3769234.745 331.00
   LOCATION L0000452     VOLUME   460990.619 3769235.088 331.00
   LOCATION L0000453     VOLUME   461002.807 3769235.432 331.00
   LOCATION L0000454     VOLUME   461014.994 3769235.775 331.00
   LOCATION L0000455     VOLUME   461027.181 3769236.118 331.00
   LOCATION L0000456     VOLUME   461039.368 3769236.462 331.00
   LOCATION L0000457     VOLUME   461051.555 3769236.805 331.00
   LOCATION L0000458     VOLUME   461063.742 3769237.148 331.00
   LOCATION L0000459     VOLUME   461075.930 3769237.492 331.00
   LOCATION L0000460     VOLUME   461088.117 3769237.835 330.92
   LOCATION L0000461     VOLUME   461100.304 3769238.178 330.81
   LOCATION L0000462     VOLUME   461112.491 3769238.521 330.74
   LOCATION L0000463     VOLUME   461124.680 3769238.531 330.74
   LOCATION L0000464     VOLUME   461136.869 3769238.291 330.73
   LOCATION L0000465     VOLUME   461149.059 3769238.051 330.72
   LOCATION L0000466     VOLUME   461161.249 3769237.811 330.72
   LOCATION L0000467     VOLUME   461173.438 3769237.571 330.62
   LOCATION L0000468     VOLUME   461185.628 3769237.331 330.33
   LOCATION L0000469     VOLUME   461197.817 3769237.091 330.04
   LOCATION L0000470     VOLUME   461210.007 3769236.851 330.00
   LOCATION L0000471     VOLUME   461222.197 3769236.611 330.00
   LOCATION L0000472     VOLUME   461234.386 3769236.371 330.00
   LOCATION L0000473     VOLUME   461246.576 3769236.132 330.00
   LOCATION L0000474     VOLUME   461258.766 3769235.892 330.00
   LOCATION L0000475     VOLUME   461270.955 3769235.652 330.00
   LOCATION L0000476     VOLUME   461283.145 3769235.412 330.00
   LOCATION L0000477     VOLUME   461295.335 3769235.172 329.93
   LOCATION L0000478     VOLUME   461307.524 3769234.932 329.77
   LOCATION L0000479     VOLUME   461319.714 3769234.692 329.61
   LOCATION L0000480     VOLUME   461331.903 3769234.452 329.60
   LOCATION L0000481     VOLUME   461344.093 3769234.212 329.60
   LOCATION L0000482     VOLUME   461356.283 3769233.972 329.59
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LOCATION L0000483 VOLUME 461368.472 3769233.732 329.58
LOCATION L0000484 VOLUME 461380.663 3769233.564 329.57
LOCATION L0000485 VOLUME 461392.854 3769233.621 329.58
LOCATION L0000486 VOLUME 461405.046 3769233.679 329.58
LOCATION L0000487 VOLUME 461417.238 3769233.737 329.58
LOCATION L0000488 VOLUME 461429.430 3769233.795 329.58
LOCATION L0000489 VOLUME 461441.622 3769233.853 329.54
LOCATION L0000490 VOLUME 461453.814 3769233.910 329.31
LOCATION L0000491 VOLUME 461466.006 3769233.968 329.07
LOCATION L0000492 VOLUME 461478.197 3769234.026 329.00
LOCATION L0000493 VOLUME 461490.389 3769234.084 329.00
LOCATION L0000494 VOLUME 461502.581 3769234.141 329.00
LOCATION L0000495 VOLUME 461514.773 3769234.199 329.00
LOCATION L0000496 VOLUME 461526.965 3769234.257 329.00
LOCATION L0000497 VOLUME 461539.157 3769234.315 328.87
LOCATION L0000498 VOLUME 461551.349 3769234.373 328.71
LOCATION L0000499 VOLUME 461563.540 3769234.430 328.60
LOCATION L0000500 VOLUME 461575.732 3769234.488 328.60
LOCATION L0000501 VOLUME 461587.924 3769234.546 328.61
LOCATION L0000502 VOLUME 461600.116 3769234.604 328.61
LOCATION L0000503 VOLUME 461612.308 3769234.662 328.61
LOCATION L0000504 VOLUME 461624.500 3769234.719 328.51
LOCATION L0000505 VOLUME 461636.692 3769234.777 328.26
LOCATION L0000506 VOLUME 461648.884 3769234.835 328.02
LOCATION L0000507 VOLUME 461661.075 3769234.893 328.00
LOCATION L0000508 VOLUME 461673.267 3769234.950 328.00
LOCATION L0000509 VOLUME 461685.459 3769235.008 328.00
LOCATION L0000510 VOLUME 461697.651 3769235.066 328.00
LOCATION L0000511 VOLUME 461709.843 3769235.124 328.00
LOCATION L0000512 VOLUME 461722.035 3769235.182 328.00
LOCATION L0000513 VOLUME 461734.227 3769235.239 328.00
LOCATION L0000514 VOLUME 461746.418 3769235.297 328.00
LOCATION L0000515 VOLUME 461758.610 3769235.355 328.00
LOCATION L0000516 VOLUME 461770.802 3769235.413 328.00
LOCATION L0000517 VOLUME 461782.994 3769235.470 328.00
LOCATION L0000518 VOLUME 461795.186 3769235.528 328.00
LOCATION L0000519 VOLUME 461807.378 3769235.586 328.00
LOCATION L0000520 VOLUME 461819.570 3769235.569 328.00
LOCATION L0000521 VOLUME 461831.762 3769235.533 328.00
LOCATION L0000522 VOLUME 461843.954 3769235.498 328.00
LOCATION L0000523 VOLUME 461856.146 3769235.463 328.00
LOCATION L0000524 VOLUME 461868.337 3769235.427 328.00
LOCATION L0000525 VOLUME 461880.529 3769235.392 328.00
LOCATION L0000526 VOLUME 461892.721 3769235.357 328.00
LOCATION L0000527 VOLUME 461904.913 3769235.321 328.00
LOCATION L0000528 VOLUME 461917.105 3769235.286 328.00
LOCATION L0000529 VOLUME 461929.297 3769235.251 328.00
LOCATION L0000530 VOLUME 461941.489 3769235.215 328.00
LOCATION L0000531 VOLUME 461953.681 3769235.180 327.95
LOCATION L0000532 VOLUME 461965.873 3769235.145 327.80
LOCATION L0000533 VOLUME 461978.065 3769235.109 327.64
LOCATION L0000534 VOLUME 461990.257 3769235.074 327.62
LOCATION L0000535 VOLUME 462002.449 3769235.039 327.62
LOCATION L0000536 VOLUME 462014.641 3769235.003 327.62

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   LOCATION L0000537     VOLUME   462026.833 3769234.968 327.62
   LOCATION L0000538     VOLUME   462039.025 3769234.933 327.62
   LOCATION L0000539     VOLUME   462051.217 3769234.897 327.62
   LOCATION L0000540     VOLUME   462063.409 3769234.862 327.62
   LOCATION L0000541     VOLUME   462075.601 3769234.827 327.62
   LOCATION L0000542     VOLUME   462087.793 3769234.791 327.61
   LOCATION L0000543     VOLUME   462099.985 3769234.756 327.61
   LOCATION L0000544     VOLUME   462112.176 3769234.721 327.61
   LOCATION L0000545     VOLUME   462124.368 3769234.685 327.61
   LOCATION L0000546     VOLUME   462136.560 3769234.650 327.61
   LOCATION L0000547     VOLUME   462148.752 3769234.615 327.61
   LOCATION L0000548     VOLUME   462160.944 3769234.579 327.61
** End of LINE VOLUME Source ID = SLOVER
   LOCATION IDLING       POINT      461555.730  3769145.780      327.690
** DESCRSRC Truck Idling
** Source Parameters **
** LINE VOLUME Source ID = DWY1
   SRCPARAM L0000329     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000330     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000331     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000332     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000333     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000334     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000335     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000336     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000337     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000338     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000339     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000340     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000341     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000342     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000343     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000344     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000345     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000346     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000347     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000348     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000349     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000350     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000351     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000352     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000353     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000354     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000355     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000356     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000357     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000358     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000359     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000360     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000361     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000362     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000363     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000364     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000365     0.00000001718      0.00      1.70      0.85
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   SRCPARAM L0000366     0.00000001718      0.00      1.70      0.85
   SRCPARAM L0000367     0.00000001718      0.00      1.70      0.85
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** LINE VOLUME Source ID = DWY2
   SRCPARAM L0000368     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000369     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000370     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000371     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000372     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000373     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000374     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000375     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000376     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000377     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000378     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000379     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000380     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000381     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000382     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000383     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000384     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000385     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000386     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000387     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000388     0.00000001691      0.00      1.70      0.85
   SRCPARAM L0000389     0.00000001691      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = DWY3
   SRCPARAM L0000390     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000391     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000392     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000393     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000394     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000395     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000396     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000397     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000398     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000399     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000400     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000401     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000402     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000403     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000404     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000405     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000406     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000407     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000408     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000409     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000410     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000411     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000412     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000413     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000414     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000415     0.00000001694      0.00      1.70      0.85
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   SRCPARAM L0000416     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000417     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000418     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000419     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000420     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000421     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000422     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000423     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000424     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000425     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000426     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000427     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000428     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000429     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000430     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000431     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000432     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000433     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000434     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000435     0.00000001694      0.00      1.70      0.85
   SRCPARAM L0000436     0.00000001694      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = ALDER
   SRCPARAM L0000437     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000438     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000439     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000440     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000441     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000442     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000443     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000444     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000445     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000446     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000447     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000448     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000449     0.00000001064      0.00      1.70      0.85
   SRCPARAM L0000450     0.00000001064      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLOVER
   SRCPARAM L0000451     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000452     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000453     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000454     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000455     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000456     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000457     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000458     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000459     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000460     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000461     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000462     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000463     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000464     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000465     0.00000005133      0.00      5.67      0.85
```

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SRCPARAM L0000466     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000467     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000468     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000469     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000470     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000471     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000472     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000473     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000474     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000475     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000476     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000477     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000478     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000479     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000480     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000481     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000482     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000483     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000484     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000485     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000486     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000487     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000488     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000489     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000490     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000491     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000492     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000493     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000494     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000495     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000496     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000497     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000498     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000499     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000500     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000501     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000502     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000503     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000504     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000505     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000506     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000507     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000508     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000509     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000510     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000511     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000512     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000513     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000514     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000515     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000516     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000517     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000518     0.00000005133      0.00      5.67      0.85
SRCPARAM L0000519     0.00000005133      0.00      5.67      0.85
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   SRCPARAM L0000520     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000521     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000522     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000523     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000524     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000525     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000526     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000527     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000528     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000529     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000530     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000531     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000532     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000533     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000534     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000535     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000536     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000537     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000538     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000539     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000540     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000541     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000542     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000543     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000544     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000545     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000546     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000547     0.00000005133      0.00      5.67      0.85
   SRCPARAM L0000548     0.00000005133      0.00      5.67      0.85
** ------------------------------------------------------------------
   SRCPARAM IDLING       0.0000305     3.840   366.000  50.00000     0.100

** Building Downwash **
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41

   BUILDWID IDLING         270.09   276.54   274.58   264.29   245.96   220.16
   BUILDWID IDLING         187.67   149.48   107.59   149.86   188.07   220.57
   BUILDWID IDLING         246.36   264.67   274.93   276.84   270.34   255.74
   BUILDWID IDLING         270.09   276.54   274.58   264.29   245.96   220.16
   BUILDWID IDLING         187.67   149.48   107.59   149.86   188.07   220.57
   BUILDWID IDLING         246.36   264.67   274.93   276.84   270.34   255.74

   BUILDLEN IDLING         149.86   188.07   220.57   246.36   264.67   274.93
   BUILDLEN IDLING         276.84   270.34   255.74   270.09   276.54   274.58
   BUILDLEN IDLING         264.29   245.96   220.16   187.67   149.48   107.59
   BUILDLEN IDLING         149.86   188.07   220.57   246.36   264.67   274.93
   BUILDLEN IDLING         276.84   270.34   255.74   270.09   276.54   274.58
   BUILDLEN IDLING         264.29   245.96   220.16   187.67   149.48   107.59
```

```
   XBADJ    IDLING        -119.03  -136.14  -149.11  -157.55  -161.21  -159.96
   XBADJ    IDLING        -153.86  -143.08  -127.95  -127.18  -122.85  -114.78
   XBADJ    IDLING        -103.24   -88.55   -71.17   -51.63   -30.53    -9.28
   XBADJ    IDLING         -30.83   -51.93   -71.45   -88.80  -103.46  -114.97
   XBADJ    IDLING        -122.99  -127.27  -127.79  -142.91  -153.69  -159.80
   XBADJ    IDLING        -161.05  -157.41  -148.99  -136.04  -118.96   -98.31

   YBADJ    IDLING          -7.87   -15.42   -22.51   -28.91   -34.43   -38.91
   YBADJ    IDLING         -42.20   -44.22   -44.52   -44.10   -42.11   -38.83
   YBADJ    IDLING         -34.37   -28.87   -22.50   -15.44    -7.91    -0.08
   YBADJ    IDLING           7.87    15.42    22.51    28.91    34.43    38.91
   YBADJ    IDLING          42.20    44.22    44.52    44.10    42.11    38.83
   YBADJ    IDLING          34.37    28.87    22.50    15.44     7.91     0.08

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED DPM2023.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\FontanaADJU\FONT_V9_ADJU\FONT_v9.SFC
   PROFFILE ..\FontanaADJU\FONT_V9_ADJU\FONT_v9.PFL
   SURFDATA 3102 2011 Fontana
   UAIRDATA 3190 2011
   SITEDATA 99999 2011
   PROFBASE 367.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST DPM2023.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL DPM2023.AD\AN00GALL.PLT 32
   SUMMFILE DPM2023.sum
OU FINISHED
```

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**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
461352.00000	3769256.00000	0.00074	330.00	330.00	0.00	ANNUAL	ALL	00000005	
461484.00000	3769257.00000	0.00111	329.36	329.36	0.00	ANNUAL	ALL	00000005	
461729.00000	3769204.00000	0.00200	328.00	328.00	0.00	ANNUAL	ALL	00000005	
461780.00000	3769203.00000	0.00139	327.85	327.85	0.00	ANNUAL	ALL	00000005	
461786.00000	3769062.00000	0.00048	325.92	561.00	0.00	ANNUAL	ALL	00000005	
461726.00000	3769022.00000	0.00048	325.52	561.00	0.00	ANNUAL	ALL	00000005	
461645.00000	3769015.00000	0.00053	326.00	562.00	0.00	ANNUAL	ALL	00000005	
461568.00000	3768930.00000	0.00088	325.00	562.00	0.00	ANNUAL	ALL	00000005	
461434.00000	3769023.00000	0.00119	327.00	562.00	0.00	ANNUAL	ALL	00000005	
461372.00000	3769044.00000	0.00097	327.26	562.00	0.00	ANNUAL	ALL	00000005	
461382.00000	3769140.00000	0.00081	328.46	561.00	0.00	ANNUAL	ALL	00000005	
461286.00000	3769219.00000	0.00075	330.00	330.00	0.00	ANNUAL	ALL	00000005	

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	NET ID	DATE(CONC)
461352.00000	3769256.00000	0.00259	330.00	330.00	0.00	24-HR	ALL	1ST		16123124
461484.00000	3769257.00000	0.00439	329.36	329.36	0.00	24-HR	ALL	1ST		16123124
461729.00000	3769204.00000	0.00476	328.00	328.00	0.00	24-HR	ALL	1ST		15052924
461780.00000	3769203.00000	0.00335	327.85	327.85	0.00	24-HR	ALL	1ST		15052924
461786.00000	3769062.00000	0.00248	325.92	561.00	0.00	24-HR	ALL	1ST		13112024
461726.00000	3769022.00000	0.00236	325.52	561.00	0.00	24-HR	ALL	1ST		13052424
461645.00000	3769015.00000	0.00248	326.00	562.00	0.00	24-HR	ALL	1ST		12123024
461568.00000	3768930.00000	0.00391	325.00	562.00	0.00	24-HR	ALL	1ST		15020724
461434.00000	3769023.00000	0.00378	327.00	562.00	0.00	24-HR	ALL	1ST		16112224
461372.00000	3769044.00000	0.00386	327.26	562.00	0.00	24-HR	ALL	1ST		11121924
461382.00000	3769140.00000	0.00337	328.46	561.00	0.00	24-HR	ALL	1ST		16012024
461286.00000	3769219.00000	0.00193	330.00	330.00	0.00	24-HR	ALL	1ST		16123124

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

APPENDIX D

AERMOD Model Years 2026 – 2040 Operational PM10 Printouts

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 2/7/2022
** File: C:\Vista Env\2021\21060 SB Co\AERMOD\DPM2026\DPM2026.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Slover / Alder Ave Industrial - 2026-2040 DPM
   TITLETWO PM10
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2035210 San_Bernardino_Co
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL DPM2026.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY1
** DESCRSRC Project DWY 1 - Alder Ave
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 4.82E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461413.126, 3769172.571, 329.00, 0.00, 1.70
** 461470.310, 3769171.735, 328.44, 0.00, 1.70
** 461553.714, 3769149.977, 327.87, 0.00, 1.70
** ------------------------------------------------------------------------
   LOCATION L0000549     VOLUME   461414.955 3769172.545 328.92
   LOCATION L0000550     VOLUME   461418.612 3769172.491 328.86
   LOCATION L0000551     VOLUME   461422.269 3769172.438 328.80
```

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   LOCATION L0000552     VOLUME   461425.926 3769172.384 328.75
   LOCATION L0000553     VOLUME   461429.583 3769172.331 328.69
   LOCATION L0000554     VOLUME   461433.241 3769172.277 328.63
   LOCATION L0000555     VOLUME   461436.898 3769172.224 328.57
   LOCATION L0000556     VOLUME   461440.555 3769172.170 328.53
   LOCATION L0000557     VOLUME   461444.212 3769172.117 328.53
   LOCATION L0000558     VOLUME   461447.869 3769172.063 328.52
   LOCATION L0000559     VOLUME   461451.527 3769172.009 328.52
   LOCATION L0000560     VOLUME   461455.184 3769171.956 328.52
   LOCATION L0000561     VOLUME   461458.841 3769171.902 328.52
   LOCATION L0000562     VOLUME   461462.498 3769171.849 328.52
   LOCATION L0000563     VOLUME   461466.156 3769171.795 328.51
   LOCATION L0000564     VOLUME   461469.813 3769171.742 328.51
   LOCATION L0000565     VOLUME   461473.368 3769170.937 328.43
   LOCATION L0000566     VOLUME   461476.907 3769170.014 328.34
   LOCATION L0000567     VOLUME   461480.446 3769169.090 328.27
   LOCATION L0000568     VOLUME   461483.985 3769168.167 328.21
   LOCATION L0000569     VOLUME   461487.525 3769167.244 328.15
   LOCATION L0000570     VOLUME   461491.064 3769166.320 328.09
   LOCATION L0000571     VOLUME   461494.603 3769165.397 328.05
   LOCATION L0000572     VOLUME   461498.142 3769164.474 328.01
   LOCATION L0000573     VOLUME   461501.681 3769163.551 328.00
   LOCATION L0000574     VOLUME   461505.220 3769162.627 328.00
   LOCATION L0000575     VOLUME   461508.759 3769161.704 328.00
   LOCATION L0000576     VOLUME   461512.299 3769160.781 328.00
   LOCATION L0000577     VOLUME   461515.838 3769159.858 328.00
   LOCATION L0000578     VOLUME   461519.377 3769158.934 328.00
   LOCATION L0000579     VOLUME   461522.916 3769158.011 328.00
   LOCATION L0000580     VOLUME   461526.455 3769157.088 328.00
   LOCATION L0000581     VOLUME   461529.994 3769156.165 328.00
   LOCATION L0000582     VOLUME   461533.534 3769155.241 328.00
   LOCATION L0000583     VOLUME   461537.073 3769154.318 327.98
   LOCATION L0000584     VOLUME   461540.612 3769153.395 327.96
   LOCATION L0000585     VOLUME   461544.151 3769152.472 327.94
   LOCATION L0000586     VOLUME   461547.690 3769151.548 327.90
   LOCATION L0000587     VOLUME   461551.229 3769150.625 327.86
** End of LINE VOLUME Source ID = DWY1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY2
** DESCRSRC Project Driveway 2 - Slover Ave West
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 2.68E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461531.677, 3769225.292, 328.91, 0.00, 1.70
** 461531.677, 3769168.387, 328.00, 0.00, 1.70
** 461552.877, 3769160.298, 327.96, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000588     VOLUME   461531.677 3769223.463 328.95
   LOCATION L0000589     VOLUME   461531.677 3769219.806 328.94
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   LOCATION L0000590     VOLUME   461531.677 3769216.148 328.93
   LOCATION L0000591     VOLUME   461531.677 3769212.490 328.81
   LOCATION L0000592     VOLUME   461531.677 3769208.833 328.70
   LOCATION L0000593     VOLUME   461531.677 3769205.175 328.58
   LOCATION L0000594     VOLUME   461531.677 3769201.518 328.47
   LOCATION L0000595     VOLUME   461531.677 3769197.860 328.36
   LOCATION L0000596     VOLUME   461531.677 3769194.202 328.24
   LOCATION L0000597     VOLUME   461531.677 3769190.545 328.13
   LOCATION L0000598     VOLUME   461531.677 3769186.887 328.02
   LOCATION L0000599     VOLUME   461531.677 3769183.230 328.00
   LOCATION L0000600     VOLUME   461531.677 3769179.572 328.00
   LOCATION L0000601     VOLUME   461531.677 3769175.914 328.00
   LOCATION L0000602     VOLUME   461531.677 3769172.257 328.00
   LOCATION L0000603     VOLUME   461531.677 3769168.599 328.00
   LOCATION L0000604     VOLUME   461534.897 3769167.159 328.00
   LOCATION L0000605     VOLUME   461538.314 3769165.855 328.00
   LOCATION L0000606     VOLUME   461541.731 3769164.551 328.00
   LOCATION L0000607     VOLUME   461545.148 3769163.247 328.00
   LOCATION L0000608     VOLUME   461548.566 3769161.943 328.00
   LOCATION L0000609     VOLUME   461551.983 3769160.639 328.00
** End of LINE VOLUME Source ID = DWY2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY3
** DESCRSRC Project Driveway 3 - Slover Ave East
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 5.73E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461673.660, 3769226.129, 328.00, 0.00, 1.70
** 461673.102, 3769173.408, 327.64, 0.00, 1.70
** 461556.782, 3769154.719, 327.97, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000610     VOLUME   461673.641 3769224.300 328.00
   LOCATION L0000611     VOLUME   461673.602 3769220.643 328.00
   LOCATION L0000612     VOLUME   461673.563 3769216.985 328.00
   LOCATION L0000613     VOLUME   461673.525 3769213.328 328.00
   LOCATION L0000614     VOLUME   461673.486 3769209.670 328.00
   LOCATION L0000615     VOLUME   461673.447 3769206.013 328.00
   LOCATION L0000616     VOLUME   461673.408 3769202.356 328.00
   LOCATION L0000617     VOLUME   461673.370 3769198.698 328.00
   LOCATION L0000618     VOLUME   461673.331 3769195.041 328.00
   LOCATION L0000619     VOLUME   461673.292 3769191.383 328.00
   LOCATION L0000620     VOLUME   461673.254 3769187.726 328.00
   LOCATION L0000621     VOLUME   461673.215 3769184.069 327.92
   LOCATION L0000622     VOLUME   461673.176 3769180.411 327.80
   LOCATION L0000623     VOLUME   461673.137 3769176.754 327.68
   LOCATION L0000624     VOLUME   461672.794 3769173.359 327.57
   LOCATION L0000625     VOLUME   461669.183 3769172.779 327.55
   LOCATION L0000626     VOLUME   461665.572 3769172.198 327.53
   LOCATION L0000627     VOLUME   461661.960 3769171.618 327.51
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   LOCATION L0000628     VOLUME   461658.349 3769171.038 327.49
   LOCATION L0000629     VOLUME   461654.738 3769170.458 327.47
   LOCATION L0000630     VOLUME   461651.127 3769169.877 327.45
   LOCATION L0000631     VOLUME   461647.515 3769169.297 327.47
   LOCATION L0000632     VOLUME   461643.904 3769168.717 327.52
   LOCATION L0000633     VOLUME   461640.293 3769168.137 327.58
   LOCATION L0000634     VOLUME   461636.681 3769167.557 327.64
   LOCATION L0000635     VOLUME   461633.070 3769166.976 327.71
   LOCATION L0000636     VOLUME   461629.459 3769166.396 327.78
   LOCATION L0000637     VOLUME   461625.848 3769165.816 327.86
   LOCATION L0000638     VOLUME   461622.236 3769165.236 327.94
   LOCATION L0000639     VOLUME   461618.625 3769164.655 328.00
   LOCATION L0000640     VOLUME   461615.014 3769164.075 328.00
   LOCATION L0000641     VOLUME   461611.402 3769163.495 328.00
   LOCATION L0000642     VOLUME   461607.791 3769162.915 328.00
   LOCATION L0000643     VOLUME   461604.180 3769162.334 328.00
   LOCATION L0000644     VOLUME   461600.569 3769161.754 328.00
   LOCATION L0000645     VOLUME   461596.957 3769161.174 328.00
   LOCATION L0000646     VOLUME   461593.346 3769160.594 328.00
   LOCATION L0000647     VOLUME   461589.735 3769160.014 328.00
   LOCATION L0000648     VOLUME   461586.123 3769159.433 328.00
   LOCATION L0000649     VOLUME   461582.512 3769158.853 328.00
   LOCATION L0000650     VOLUME   461578.901 3769158.273 328.00
   LOCATION L0000651     VOLUME   461575.290 3769157.693 328.00
   LOCATION L0000652     VOLUME   461571.678 3769157.112 328.00
   LOCATION L0000653     VOLUME   461568.067 3769156.532 328.00
   LOCATION L0000654     VOLUME   461564.456 3769155.952 327.99
   LOCATION L0000655     VOLUME   461560.844 3769155.372 327.97
   LOCATION L0000656     VOLUME   461557.233 3769154.791 327.95
** End of LINE VOLUME Source ID = DWY3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = ALDER
** DESCRSRC Alder Ave - DWY 1 to Slover Ave
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 1.3E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 2
** 461405.873, 3769224.734, 329.00, 0.00, 1.70
** 461405.873, 3769172.014, 329.00, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000657     VOLUME   461405.873 3769222.905 329.22
   LOCATION L0000658     VOLUME   461405.873 3769219.248 329.10
   LOCATION L0000659     VOLUME   461405.873 3769215.590 329.00
   LOCATION L0000660     VOLUME   461405.873 3769211.932 329.00
   LOCATION L0000661     VOLUME   461405.873 3769208.275 329.00
   LOCATION L0000662     VOLUME   461405.873 3769204.617 329.00
   LOCATION L0000663     VOLUME   461405.873 3769200.960 329.00
   LOCATION L0000664     VOLUME   461405.873 3769197.302 329.00
   LOCATION L0000665     VOLUME   461405.873 3769193.644 329.00
   LOCATION L0000666     VOLUME   461405.873 3769189.987 329.00
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   LOCATION L0000667     VOLUME   461405.873 3769186.329 329.00
   LOCATION L0000668     VOLUME   461405.873 3769182.672 329.00
   LOCATION L0000669     VOLUME   461405.873 3769179.014 329.00
   LOCATION L0000670     VOLUME   461405.873 3769175.356 329.00
** End of LINE VOLUME Source ID = ALDER
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLOVER
** DESCRSRC Slover Ave
** PREFIX
** Length of Side = 12.19
** Configuration = Adjacent
** Emission Rate = 4.39E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 5
** 460972.339, 3769234.573, 331.00, 0.00, 5.67
** 461117.706, 3769238.668, 330.83, 0.00, 5.67
** 461377.729, 3769233.550, 329.63, 0.00, 5.67
** 461809.736, 3769235.597, 328.00, 0.00, 5.67
** 462162.918, 3769234.573, 327.68, 0.00, 5.67
** ----------------------------------------------------------------------
   LOCATION L0000671     VOLUME   460978.432 3769234.745 331.00
   LOCATION L0000672     VOLUME   460990.619 3769235.088 331.00
   LOCATION L0000673     VOLUME   461002.807 3769235.432 331.00
   LOCATION L0000674     VOLUME   461014.994 3769235.775 331.00
   LOCATION L0000675     VOLUME   461027.181 3769236.118 331.00
   LOCATION L0000676     VOLUME   461039.368 3769236.462 331.00
   LOCATION L0000677     VOLUME   461051.555 3769236.805 331.00
   LOCATION L0000678     VOLUME   461063.742 3769237.148 331.00
   LOCATION L0000679     VOLUME   461075.930 3769237.492 331.00
   LOCATION L0000680     VOLUME   461088.117 3769237.835 330.92
   LOCATION L0000681     VOLUME   461100.304 3769238.178 330.81
   LOCATION L0000682     VOLUME   461112.491 3769238.521 330.74
   LOCATION L0000683     VOLUME   461124.680 3769238.531 330.74
   LOCATION L0000684     VOLUME   461136.869 3769238.291 330.73
   LOCATION L0000685     VOLUME   461149.059 3769238.051 330.72
   LOCATION L0000686     VOLUME   461161.249 3769237.811 330.72
   LOCATION L0000687     VOLUME   461173.438 3769237.571 330.62
   LOCATION L0000688     VOLUME   461185.628 3769237.331 330.33
   LOCATION L0000689     VOLUME   461197.817 3769237.091 330.04
   LOCATION L0000690     VOLUME   461210.007 3769236.851 330.00
   LOCATION L0000691     VOLUME   461222.197 3769236.611 330.00
   LOCATION L0000692     VOLUME   461234.386 3769236.371 330.00
   LOCATION L0000693     VOLUME   461246.576 3769236.132 330.00
   LOCATION L0000694     VOLUME   461258.766 3769235.892 330.00
   LOCATION L0000695     VOLUME   461270.955 3769235.652 330.00
   LOCATION L0000696     VOLUME   461283.145 3769235.412 330.00
   LOCATION L0000697     VOLUME   461295.335 3769235.172 329.93
   LOCATION L0000698     VOLUME   461307.524 3769234.932 329.77
   LOCATION L0000699     VOLUME   461319.714 3769234.692 329.61
   LOCATION L0000700     VOLUME   461331.903 3769234.452 329.60
   LOCATION L0000701     VOLUME   461344.093 3769234.212 329.60
   LOCATION L0000702     VOLUME   461356.283 3769233.972 329.59
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LOCATION L0000703 VOLUME 461368.472 3769233.732 329.58
LOCATION L0000704 VOLUME 461380.663 3769233.564 329.57
LOCATION L0000705 VOLUME 461392.854 3769233.621 329.58
LOCATION L0000706 VOLUME 461405.046 3769233.679 329.58
LOCATION L0000707 VOLUME 461417.238 3769233.737 329.58
LOCATION L0000708 VOLUME 461429.430 3769233.795 329.58
LOCATION L0000709 VOLUME 461441.622 3769233.853 329.54
LOCATION L0000710 VOLUME 461453.814 3769233.910 329.31
LOCATION L0000711 VOLUME 461466.006 3769233.968 329.07
LOCATION L0000712 VOLUME 461478.197 3769234.026 329.00
LOCATION L0000713 VOLUME 461490.389 3769234.084 329.00
LOCATION L0000714 VOLUME 461502.581 3769234.141 329.00
LOCATION L0000715 VOLUME 461514.773 3769234.199 329.00
LOCATION L0000716 VOLUME 461526.965 3769234.257 329.00
LOCATION L0000717 VOLUME 461539.157 3769234.315 328.87
LOCATION L0000718 VOLUME 461551.349 3769234.373 328.71
LOCATION L0000719 VOLUME 461563.540 3769234.430 328.60
LOCATION L0000720 VOLUME 461575.732 3769234.488 328.60
LOCATION L0000721 VOLUME 461587.924 3769234.546 328.61
LOCATION L0000722 VOLUME 461600.116 3769234.604 328.61
LOCATION L0000723 VOLUME 461612.308 3769234.662 328.61
LOCATION L0000724 VOLUME 461624.500 3769234.719 328.51
LOCATION L0000725 VOLUME 461636.692 3769234.777 328.26
LOCATION L0000726 VOLUME 461648.884 3769234.835 328.02
LOCATION L0000727 VOLUME 461661.075 3769234.893 328.00
LOCATION L0000728 VOLUME 461673.267 3769234.950 328.00
LOCATION L0000729 VOLUME 461685.459 3769235.008 328.00
LOCATION L0000730 VOLUME 461697.651 3769235.066 328.00
LOCATION L0000731 VOLUME 461709.843 3769235.124 328.00
LOCATION L0000732 VOLUME 461722.035 3769235.182 328.00
LOCATION L0000733 VOLUME 461734.227 3769235.239 328.00
LOCATION L0000734 VOLUME 461746.418 3769235.297 328.00
LOCATION L0000735 VOLUME 461758.610 3769235.355 328.00
LOCATION L0000736 VOLUME 461770.802 3769235.413 328.00
LOCATION L0000737 VOLUME 461782.994 3769235.470 328.00
LOCATION L0000738 VOLUME 461795.186 3769235.528 328.00
LOCATION L0000739 VOLUME 461807.378 3769235.586 328.00
LOCATION L0000740 VOLUME 461819.570 3769235.569 328.00
LOCATION L0000741 VOLUME 461831.762 3769235.533 328.00
LOCATION L0000742 VOLUME 461843.954 3769235.498 328.00
LOCATION L0000743 VOLUME 461856.146 3769235.463 328.00
LOCATION L0000744 VOLUME 461868.337 3769235.427 328.00
LOCATION L0000745 VOLUME 461880.529 3769235.392 328.00
LOCATION L0000746 VOLUME 461892.721 3769235.357 328.00
LOCATION L0000747 VOLUME 461904.913 3769235.321 328.00
LOCATION L0000748 VOLUME 461917.105 3769235.286 328.00
LOCATION L0000749 VOLUME 461929.297 3769235.251 328.00
LOCATION L0000750 VOLUME 461941.489 3769235.215 328.00
LOCATION L0000751 VOLUME 461953.681 3769235.180 327.95
LOCATION L0000752 VOLUME 461965.873 3769235.145 327.80
LOCATION L0000753 VOLUME 461978.065 3769235.109 327.64
LOCATION L0000754 VOLUME 461990.257 3769235.074 327.62
LOCATION L0000755 VOLUME 462002.449 3769235.039 327.62
LOCATION L0000756 VOLUME 462014.641 3769235.003 327.62

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   LOCATION L0000757     VOLUME   462026.833 3769234.968 327.62
   LOCATION L0000758     VOLUME   462039.025 3769234.933 327.62
   LOCATION L0000759     VOLUME   462051.217 3769234.897 327.62
   LOCATION L0000760     VOLUME   462063.409 3769234.862 327.62
   LOCATION L0000761     VOLUME   462075.601 3769234.827 327.62
   LOCATION L0000762     VOLUME   462087.793 3769234.791 327.61
   LOCATION L0000763     VOLUME   462099.985 3769234.756 327.61
   LOCATION L0000764     VOLUME   462112.176 3769234.721 327.61
   LOCATION L0000765     VOLUME   462124.368 3769234.685 327.61
   LOCATION L0000766     VOLUME   462136.560 3769234.650 327.61
   LOCATION L0000767     VOLUME   462148.752 3769234.615 327.61
   LOCATION L0000768     VOLUME   462160.944 3769234.579 327.61
** End of LINE VOLUME Source ID = SLOVER
   LOCATION IDLING       POINT      461555.730  3769145.780      327.690
** DESCRSRC Truck Idling
** Source Parameters **
** LINE VOLUME Source ID = DWY1
   SRCPARAM L0000549     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000550     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000551     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000552     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000553     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000554     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000555     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000556     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000557     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000558     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000559     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000560     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000561     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000562     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000563     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000564     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000565     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000566     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000567     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000568     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000569     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000570     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000571     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000572     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000573     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000574     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000575     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000576     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000577     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000578     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000579     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000580     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000581     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000582     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000583     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000584     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000585     0.00000001236      0.00      1.70      0.85
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   SRCPARAM L0000586     0.00000001236      0.00      1.70      0.85
   SRCPARAM L0000587     0.00000001236      0.00      1.70      0.85
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = DWY2
   SRCPARAM L0000588     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000589     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000590     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000591     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000592     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000593     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000594     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000595     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000596     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000597     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000598     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000599     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000600     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000601     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000602     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000603     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000604     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000605     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000606     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000607     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000608     0.00000001218      0.00      1.70      0.85
   SRCPARAM L0000609     0.00000001218      0.00      1.70      0.85
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = DWY3
   SRCPARAM L0000610     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000611     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000612     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000613     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000614     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000615     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000616     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000617     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000618     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000619     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000620     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000621     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000622     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000623     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000624     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000625     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000626     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000627     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000628     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000629     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000630     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000631     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000632     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000633     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000634     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000635     0.00000001219      0.00      1.70      0.85
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   SRCPARAM L0000636     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000637     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000638     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000639     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000640     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000641     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000642     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000643     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000644     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000645     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000646     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000647     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000648     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000649     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000650     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000651     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000652     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000653     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000654     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000655     0.00000001219      0.00      1.70      0.85
   SRCPARAM L0000656     0.00000001219      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = ALDER
   SRCPARAM L0000657     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000658     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000659     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000660     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000661     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000662     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000663     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000664     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000665     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000666     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000667     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000668     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000669     0.000000009286      0.00      1.70      0.85
   SRCPARAM L0000670     0.000000009286      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLOVER
   SRCPARAM L0000671     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000672     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000673     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000674     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000675     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000676     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000677     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000678     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000679     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000680     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000681     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000682     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000683     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000684     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000685     0.0000000448      0.00      5.67      0.85
```

```
SRCPARAM L0000686     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000687     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000688     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000689     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000690     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000691     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000692     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000693     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000694     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000695     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000696     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000697     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000698     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000699     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000700     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000701     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000702     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000703     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000704     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000705     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000706     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000707     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000708     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000709     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000710     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000711     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000712     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000713     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000714     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000715     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000716     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000717     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000718     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000719     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000720     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000721     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000722     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000723     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000724     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000725     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000726     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000727     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000728     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000729     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000730     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000731     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000732     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000733     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000734     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000735     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000736     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000737     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000738     0.0000000448      0.00      5.67      0.85
SRCPARAM L0000739     0.0000000448      0.00      5.67      0.85
```

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   SRCPARAM L0000740     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000741     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000742     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000743     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000744     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000745     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000746     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000747     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000748     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000749     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000750     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000751     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000752     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000753     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000754     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000755     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000756     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000757     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000758     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000759     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000760     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000761     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000762     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000763     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000764     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000765     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000766     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000767     0.0000000448      0.00      5.67      0.85
   SRCPARAM L0000768     0.0000000448      0.00      5.67      0.85
** ------------------------------------------------------------------
   SRCPARAM IDLING       0.0000301     3.840   366.000  50.00000     0.100

** Building Downwash **
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41

   BUILDWID IDLING         270.09   276.54   274.58   264.29   245.96   220.16
   BUILDWID IDLING         187.67   149.48   107.59   149.86   188.07   220.57
   BUILDWID IDLING         246.36   264.67   274.93   276.84   270.34   255.74
   BUILDWID IDLING         270.09   276.54   274.58   264.29   245.96   220.16
   BUILDWID IDLING         187.67   149.48   107.59   149.86   188.07   220.57
   BUILDWID IDLING         246.36   264.67   274.93   276.84   270.34   255.74

   BUILDLEN IDLING         149.86   188.07   220.57   246.36   264.67   274.93
   BUILDLEN IDLING         276.84   270.34   255.74   270.09   276.54   274.58
   BUILDLEN IDLING         264.29   245.96   220.16   187.67   149.48   107.59
   BUILDLEN IDLING         149.86   188.07   220.57   246.36   264.67   274.93
   BUILDLEN IDLING         276.84   270.34   255.74   270.09   276.54   274.58
   BUILDLEN IDLING         264.29   245.96   220.16   187.67   149.48   107.59
```

```
   XBADJ    IDLING        -119.03  -136.14  -149.11  -157.55  -161.21  -159.96
   XBADJ    IDLING        -153.86  -143.08  -127.95  -127.18  -122.85  -114.78
   XBADJ    IDLING        -103.24   -88.55   -71.17   -51.63   -30.53    -9.28
   XBADJ    IDLING         -30.83   -51.93   -71.45   -88.80  -103.46  -114.97
   XBADJ    IDLING        -122.99  -127.27  -127.79  -142.91  -153.69  -159.80
   XBADJ    IDLING        -161.05  -157.41  -148.99  -136.04  -118.96   -98.31

   YBADJ    IDLING          -7.87   -15.42   -22.51   -28.91   -34.43   -38.91
   YBADJ    IDLING         -42.20   -44.22   -44.52   -44.10   -42.11   -38.83
   YBADJ    IDLING         -34.37   -28.87   -22.50   -15.44    -7.91    -0.08
   YBADJ    IDLING           7.87    15.42    22.51    28.91    34.43    38.91
   YBADJ    IDLING          42.20    44.22    44.52    44.10    42.11    38.83
   YBADJ    IDLING          34.37    28.87    22.50    15.44     7.91     0.08

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED DPM2026.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\FontanaADJU\FONT_V9_ADJU\FONT_v9.SFC
   PROFFILE ..\FontanaADJU\FONT_V9_ADJU\FONT_v9.PFL
   SURFDATA 3102 2011 Fontana
   UAIRDATA 3190 2011
   SITEDATA 99999 2011
   PROFBASE 367.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST DPM2026.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL DPM2026.AD\AN00GALL.PLT 32
   SUMMFILE DPM2026.sum
OU FINISHED
```

```
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
461352.00000	3769256.00000	0.00067	330.00	330.00	0.00	ANNUAL	ALL	00000005	
461484.00000	3769257.00000	0.00103	329.36	329.36	0.00	ANNUAL	ALL	00000005	
461729.00000	3769204.00000	0.00191	328.00	328.00	0.00	ANNUAL	ALL	00000005	
461780.00000	3769203.00000	0.00133	327.85	327.85	0.00	ANNUAL	ALL	00000005	
461786.00000	3769062.00000	0.00046	325.92	561.00	0.00	ANNUAL	ALL	00000005	
461726.00000	3769022.00000	0.00046	325.52	561.00	0.00	ANNUAL	ALL	00000005	
461645.00000	3769015.00000	0.00051	326.00	562.00	0.00	ANNUAL	ALL	00000005	
461568.00000	3768930.00000	0.00086	325.00	562.00	0.00	ANNUAL	ALL	00000005	
461434.00000	3769023.00000	0.00116	327.00	562.00	0.00	ANNUAL	ALL	00000005	
461372.00000	3769044.00000	0.00094	327.26	562.00	0.00	ANNUAL	ALL	00000005	
461382.00000	3769140.00000	0.00076	328.46	561.00	0.00	ANNUAL	ALL	00000005	
461286.00000	3769219.00000	0.00068	330.00	330.00	0.00	ANNUAL	ALL	00000005	

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

APPENDIX E

AERMOD Model Years 2041 – 2052 Operational PM10 Printouts

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 2/7/2022
** File: C:\Vista Env\2021\21060 SB Co\AERMOD\DPM2041\DPM2041.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Slover / Alder Ave Industrial - 2041-2052 DPM
   TITLETWO PM10
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2035210 San_Bernardino_Co
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL DPM2041.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY1
** DESCRSRC Project DWY 1 - Alder Ave
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 3.81E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461413.126, 3769172.571, 329.00, 0.00, 1.70
** 461470.310, 3769171.735, 328.44, 0.00, 1.70
** 461553.714, 3769149.977, 327.87, 0.00, 1.70
** ------------------------------------------------------------------------
   LOCATION L0000549     VOLUME   461414.955 3769172.545 328.92
   LOCATION L0000550     VOLUME   461418.612 3769172.491 328.86
   LOCATION L0000551     VOLUME   461422.269 3769172.438 328.80
```

```
   LOCATION L0000552     VOLUME   461425.926 3769172.384 328.75
   LOCATION L0000553     VOLUME   461429.583 3769172.331 328.69
   LOCATION L0000554     VOLUME   461433.241 3769172.277 328.63
   LOCATION L0000555     VOLUME   461436.898 3769172.224 328.57
   LOCATION L0000556     VOLUME   461440.555 3769172.170 328.53
   LOCATION L0000557     VOLUME   461444.212 3769172.117 328.53
   LOCATION L0000558     VOLUME   461447.869 3769172.063 328.52
   LOCATION L0000559     VOLUME   461451.527 3769172.009 328.52
   LOCATION L0000560     VOLUME   461455.184 3769171.956 328.52
   LOCATION L0000561     VOLUME   461458.841 3769171.902 328.52
   LOCATION L0000562     VOLUME   461462.498 3769171.849 328.52
   LOCATION L0000563     VOLUME   461466.156 3769171.795 328.51
   LOCATION L0000564     VOLUME   461469.813 3769171.742 328.51
   LOCATION L0000565     VOLUME   461473.368 3769170.937 328.43
   LOCATION L0000566     VOLUME   461476.907 3769170.014 328.34
   LOCATION L0000567     VOLUME   461480.446 3769169.090 328.27
   LOCATION L0000568     VOLUME   461483.985 3769168.167 328.21
   LOCATION L0000569     VOLUME   461487.525 3769167.244 328.15
   LOCATION L0000570     VOLUME   461491.064 3769166.320 328.09
   LOCATION L0000571     VOLUME   461494.603 3769165.397 328.05
   LOCATION L0000572     VOLUME   461498.142 3769164.474 328.01
   LOCATION L0000573     VOLUME   461501.681 3769163.551 328.00
   LOCATION L0000574     VOLUME   461505.220 3769162.627 328.00
   LOCATION L0000575     VOLUME   461508.759 3769161.704 328.00
   LOCATION L0000576     VOLUME   461512.299 3769160.781 328.00
   LOCATION L0000577     VOLUME   461515.838 3769159.858 328.00
   LOCATION L0000578     VOLUME   461519.377 3769158.934 328.00
   LOCATION L0000579     VOLUME   461522.916 3769158.011 328.00
   LOCATION L0000580     VOLUME   461526.455 3769157.088 328.00
   LOCATION L0000581     VOLUME   461529.994 3769156.165 328.00
   LOCATION L0000582     VOLUME   461533.534 3769155.241 328.00
   LOCATION L0000583     VOLUME   461537.073 3769154.318 327.98
   LOCATION L0000584     VOLUME   461540.612 3769153.395 327.96
   LOCATION L0000585     VOLUME   461544.151 3769152.472 327.94
   LOCATION L0000586     VOLUME   461547.690 3769151.548 327.90
   LOCATION L0000587     VOLUME   461551.229 3769150.625 327.86
** End of LINE VOLUME Source ID = DWY1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY2
** DESCRSRC Project Driveway 2 - Slover Ave West
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 2.11E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461531.677, 3769225.292, 328.91, 0.00, 1.70
** 461531.677, 3769168.387, 328.00, 0.00, 1.70
** 461552.877, 3769160.298, 327.96, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000588     VOLUME   461531.677 3769223.463 328.95
   LOCATION L0000589     VOLUME   461531.677 3769219.806 328.94
```

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   LOCATION L0000590     VOLUME   461531.677 3769216.148 328.93
   LOCATION L0000591     VOLUME   461531.677 3769212.490 328.81
   LOCATION L0000592     VOLUME   461531.677 3769208.833 328.70
   LOCATION L0000593     VOLUME   461531.677 3769205.175 328.58
   LOCATION L0000594     VOLUME   461531.677 3769201.518 328.47
   LOCATION L0000595     VOLUME   461531.677 3769197.860 328.36
   LOCATION L0000596     VOLUME   461531.677 3769194.202 328.24
   LOCATION L0000597     VOLUME   461531.677 3769190.545 328.13
   LOCATION L0000598     VOLUME   461531.677 3769186.887 328.02
   LOCATION L0000599     VOLUME   461531.677 3769183.230 328.00
   LOCATION L0000600     VOLUME   461531.677 3769179.572 328.00
   LOCATION L0000601     VOLUME   461531.677 3769175.914 328.00
   LOCATION L0000602     VOLUME   461531.677 3769172.257 328.00
   LOCATION L0000603     VOLUME   461531.677 3769168.599 328.00
   LOCATION L0000604     VOLUME   461534.897 3769167.159 328.00
   LOCATION L0000605     VOLUME   461538.314 3769165.855 328.00
   LOCATION L0000606     VOLUME   461541.731 3769164.551 328.00
   LOCATION L0000607     VOLUME   461545.148 3769163.247 328.00
   LOCATION L0000608     VOLUME   461548.566 3769161.943 328.00
   LOCATION L0000609     VOLUME   461551.983 3769160.639 328.00
** End of LINE VOLUME Source ID = DWY2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = DWY3
** DESCRSRC Project Driveway 3 - Slover Ave East
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 4.53E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 3
** 461673.660, 3769226.129, 328.00, 0.00, 1.70
** 461673.102, 3769173.408, 327.64, 0.00, 1.70
** 461556.782, 3769154.719, 327.97, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000610     VOLUME   461673.641 3769224.300 328.00
   LOCATION L0000611     VOLUME   461673.602 3769220.643 328.00
   LOCATION L0000612     VOLUME   461673.563 3769216.985 328.00
   LOCATION L0000613     VOLUME   461673.525 3769213.328 328.00
   LOCATION L0000614     VOLUME   461673.486 3769209.670 328.00
   LOCATION L0000615     VOLUME   461673.447 3769206.013 328.00
   LOCATION L0000616     VOLUME   461673.408 3769202.356 328.00
   LOCATION L0000617     VOLUME   461673.370 3769198.698 328.00
   LOCATION L0000618     VOLUME   461673.331 3769195.041 328.00
   LOCATION L0000619     VOLUME   461673.292 3769191.383 328.00
   LOCATION L0000620     VOLUME   461673.254 3769187.726 328.00
   LOCATION L0000621     VOLUME   461673.215 3769184.069 327.92
   LOCATION L0000622     VOLUME   461673.176 3769180.411 327.80
   LOCATION L0000623     VOLUME   461673.137 3769176.754 327.68
   LOCATION L0000624     VOLUME   461672.794 3769173.359 327.57
   LOCATION L0000625     VOLUME   461669.183 3769172.779 327.55
   LOCATION L0000626     VOLUME   461665.572 3769172.198 327.53
   LOCATION L0000627     VOLUME   461661.960 3769171.618 327.51
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   LOCATION L0000628     VOLUME   461658.349 3769171.038 327.49
   LOCATION L0000629     VOLUME   461654.738 3769170.458 327.47
   LOCATION L0000630     VOLUME   461651.127 3769169.877 327.45
   LOCATION L0000631     VOLUME   461647.515 3769169.297 327.47
   LOCATION L0000632     VOLUME   461643.904 3769168.717 327.52
   LOCATION L0000633     VOLUME   461640.293 3769168.137 327.58
   LOCATION L0000634     VOLUME   461636.681 3769167.557 327.64
   LOCATION L0000635     VOLUME   461633.070 3769166.976 327.71
   LOCATION L0000636     VOLUME   461629.459 3769166.396 327.78
   LOCATION L0000637     VOLUME   461625.848 3769165.816 327.86
   LOCATION L0000638     VOLUME   461622.236 3769165.236 327.94
   LOCATION L0000639     VOLUME   461618.625 3769164.655 328.00
   LOCATION L0000640     VOLUME   461615.014 3769164.075 328.00
   LOCATION L0000641     VOLUME   461611.402 3769163.495 328.00
   LOCATION L0000642     VOLUME   461607.791 3769162.915 328.00
   LOCATION L0000643     VOLUME   461604.180 3769162.334 328.00
   LOCATION L0000644     VOLUME   461600.569 3769161.754 328.00
   LOCATION L0000645     VOLUME   461596.957 3769161.174 328.00
   LOCATION L0000646     VOLUME   461593.346 3769160.594 328.00
   LOCATION L0000647     VOLUME   461589.735 3769160.014 328.00
   LOCATION L0000648     VOLUME   461586.123 3769159.433 328.00
   LOCATION L0000649     VOLUME   461582.512 3769158.853 328.00
   LOCATION L0000650     VOLUME   461578.901 3769158.273 328.00
   LOCATION L0000651     VOLUME   461575.290 3769157.693 328.00
   LOCATION L0000652     VOLUME   461571.678 3769157.112 328.00
   LOCATION L0000653     VOLUME   461568.067 3769156.532 328.00
   LOCATION L0000654     VOLUME   461564.456 3769155.952 327.99
   LOCATION L0000655     VOLUME   461560.844 3769155.372 327.97
   LOCATION L0000656     VOLUME   461557.233 3769154.791 327.95
** End of LINE VOLUME Source ID = DWY3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = ALDER
** DESCRSRC Alder Ave - DWY 1 to Slover Ave
** PREFIX
** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 1.18E-07
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 2
** 461405.873, 3769224.734, 329.00, 0.00, 1.70
** 461405.873, 3769172.014, 329.00, 0.00, 1.70
** ----------------------------------------------------------------------
   LOCATION L0000657     VOLUME   461405.873 3769222.905 329.22
   LOCATION L0000658     VOLUME   461405.873 3769219.248 329.10
   LOCATION L0000659     VOLUME   461405.873 3769215.590 329.00
   LOCATION L0000660     VOLUME   461405.873 3769211.932 329.00
   LOCATION L0000661     VOLUME   461405.873 3769208.275 329.00
   LOCATION L0000662     VOLUME   461405.873 3769204.617 329.00
   LOCATION L0000663     VOLUME   461405.873 3769200.960 329.00
   LOCATION L0000664     VOLUME   461405.873 3769197.302 329.00
   LOCATION L0000665     VOLUME   461405.873 3769193.644 329.00
   LOCATION L0000666     VOLUME   461405.873 3769189.987 329.00
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   LOCATION L0000667     VOLUME   461405.873 3769186.329 329.00
   LOCATION L0000668     VOLUME   461405.873 3769182.672 329.00
   LOCATION L0000669     VOLUME   461405.873 3769179.014 329.00
   LOCATION L0000670     VOLUME   461405.873 3769175.356 329.00
** End of LINE VOLUME Source ID = ALDER
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLOVER
** DESCRSRC Slover Ave
** PREFIX
** Length of Side = 12.19
** Configuration = Adjacent
** Emission Rate = 4.0E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 5
** 460972.339, 3769234.573, 331.00, 0.00, 5.67
** 461117.706, 3769238.668, 330.83, 0.00, 5.67
** 461377.729, 3769233.550, 329.63, 0.00, 5.67
** 461809.736, 3769235.597, 328.00, 0.00, 5.67
** 462162.918, 3769234.573, 327.68, 0.00, 5.67
** ----------------------------------------------------------------------
   LOCATION L0000671     VOLUME   460978.432 3769234.745 331.00
   LOCATION L0000672     VOLUME   460990.619 3769235.088 331.00
   LOCATION L0000673     VOLUME   461002.807 3769235.432 331.00
   LOCATION L0000674     VOLUME   461014.994 3769235.775 331.00
   LOCATION L0000675     VOLUME   461027.181 3769236.118 331.00
   LOCATION L0000676     VOLUME   461039.368 3769236.462 331.00
   LOCATION L0000677     VOLUME   461051.555 3769236.805 331.00
   LOCATION L0000678     VOLUME   461063.742 3769237.148 331.00
   LOCATION L0000679     VOLUME   461075.930 3769237.492 331.00
   LOCATION L0000680     VOLUME   461088.117 3769237.835 330.92
   LOCATION L0000681     VOLUME   461100.304 3769238.178 330.81
   LOCATION L0000682     VOLUME   461112.491 3769238.521 330.74
   LOCATION L0000683     VOLUME   461124.680 3769238.531 330.74
   LOCATION L0000684     VOLUME   461136.869 3769238.291 330.73
   LOCATION L0000685     VOLUME   461149.059 3769238.051 330.72
   LOCATION L0000686     VOLUME   461161.249 3769237.811 330.72
   LOCATION L0000687     VOLUME   461173.438 3769237.571 330.62
   LOCATION L0000688     VOLUME   461185.628 3769237.331 330.33
   LOCATION L0000689     VOLUME   461197.817 3769237.091 330.04
   LOCATION L0000690     VOLUME   461210.007 3769236.851 330.00
   LOCATION L0000691     VOLUME   461222.197 3769236.611 330.00
   LOCATION L0000692     VOLUME   461234.386 3769236.371 330.00
   LOCATION L0000693     VOLUME   461246.576 3769236.132 330.00
   LOCATION L0000694     VOLUME   461258.766 3769235.892 330.00
   LOCATION L0000695     VOLUME   461270.955 3769235.652 330.00
   LOCATION L0000696     VOLUME   461283.145 3769235.412 330.00
   LOCATION L0000697     VOLUME   461295.335 3769235.172 329.93
   LOCATION L0000698     VOLUME   461307.524 3769234.932 329.77
   LOCATION L0000699     VOLUME   461319.714 3769234.692 329.61
   LOCATION L0000700     VOLUME   461331.903 3769234.452 329.60
   LOCATION L0000701     VOLUME   461344.093 3769234.212 329.60
   LOCATION L0000702     VOLUME   461356.283 3769233.972 329.59
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LOCATION L0000703 VOLUME 461368.472 3769233.732 329.58
LOCATION L0000704 VOLUME 461380.663 3769233.564 329.57
LOCATION L0000705 VOLUME 461392.854 3769233.621 329.58
LOCATION L0000706 VOLUME 461405.046 3769233.679 329.58
LOCATION L0000707 VOLUME 461417.238 3769233.737 329.58
LOCATION L0000708 VOLUME 461429.430 3769233.795 329.58
LOCATION L0000709 VOLUME 461441.622 3769233.853 329.54
LOCATION L0000710 VOLUME 461453.814 3769233.910 329.31
LOCATION L0000711 VOLUME 461466.006 3769233.968 329.07
LOCATION L0000712 VOLUME 461478.197 3769234.026 329.00
LOCATION L0000713 VOLUME 461490.389 3769234.084 329.00
LOCATION L0000714 VOLUME 461502.581 3769234.141 329.00
LOCATION L0000715 VOLUME 461514.773 3769234.199 329.00
LOCATION L0000716 VOLUME 461526.965 3769234.257 329.00
LOCATION L0000717 VOLUME 461539.157 3769234.315 328.87
LOCATION L0000718 VOLUME 461551.349 3769234.373 328.71
LOCATION L0000719 VOLUME 461563.540 3769234.430 328.60
LOCATION L0000720 VOLUME 461575.732 3769234.488 328.60
LOCATION L0000721 VOLUME 461587.924 3769234.546 328.61
LOCATION L0000722 VOLUME 461600.116 3769234.604 328.61
LOCATION L0000723 VOLUME 461612.308 3769234.662 328.61
LOCATION L0000724 VOLUME 461624.500 3769234.719 328.51
LOCATION L0000725 VOLUME 461636.692 3769234.777 328.26
LOCATION L0000726 VOLUME 461648.884 3769234.835 328.02
LOCATION L0000727 VOLUME 461661.075 3769234.893 328.00
LOCATION L0000728 VOLUME 461673.267 3769234.950 328.00
LOCATION L0000729 VOLUME 461685.459 3769235.008 328.00
LOCATION L0000730 VOLUME 461697.651 3769235.066 328.00
LOCATION L0000731 VOLUME 461709.843 3769235.124 328.00
LOCATION L0000732 VOLUME 461722.035 3769235.182 328.00
LOCATION L0000733 VOLUME 461734.227 3769235.239 328.00
LOCATION L0000734 VOLUME 461746.418 3769235.297 328.00
LOCATION L0000735 VOLUME 461758.610 3769235.355 328.00
LOCATION L0000736 VOLUME 461770.802 3769235.413 328.00
LOCATION L0000737 VOLUME 461782.994 3769235.470 328.00
LOCATION L0000738 VOLUME 461795.186 3769235.528 328.00
LOCATION L0000739 VOLUME 461807.378 3769235.586 328.00
LOCATION L0000740 VOLUME 461819.570 3769235.569 328.00
LOCATION L0000741 VOLUME 461831.762 3769235.533 328.00
LOCATION L0000742 VOLUME 461843.954 3769235.498 328.00
LOCATION L0000743 VOLUME 461856.146 3769235.463 328.00
LOCATION L0000744 VOLUME 461868.337 3769235.427 328.00
LOCATION L0000745 VOLUME 461880.529 3769235.392 328.00
LOCATION L0000746 VOLUME 461892.721 3769235.357 328.00
LOCATION L0000747 VOLUME 461904.913 3769235.321 328.00
LOCATION L0000748 VOLUME 461917.105 3769235.286 328.00
LOCATION L0000749 VOLUME 461929.297 3769235.251 328.00
LOCATION L0000750 VOLUME 461941.489 3769235.215 328.00
LOCATION L0000751 VOLUME 461953.681 3769235.180 327.95
LOCATION L0000752 VOLUME 461965.873 3769235.145 327.80
LOCATION L0000753 VOLUME 461978.065 3769235.109 327.64
LOCATION L0000754 VOLUME 461990.257 3769235.074 327.62
LOCATION L0000755 VOLUME 462002.449 3769235.039 327.62
LOCATION L0000756 VOLUME 462014.641 3769235.003 327.62

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   LOCATION L0000757     VOLUME   462026.833 3769234.968 327.62
   LOCATION L0000758     VOLUME   462039.025 3769234.933 327.62
   LOCATION L0000759     VOLUME   462051.217 3769234.897 327.62
   LOCATION L0000760     VOLUME   462063.409 3769234.862 327.62
   LOCATION L0000761     VOLUME   462075.601 3769234.827 327.62
   LOCATION L0000762     VOLUME   462087.793 3769234.791 327.61
   LOCATION L0000763     VOLUME   462099.985 3769234.756 327.61
   LOCATION L0000764     VOLUME   462112.176 3769234.721 327.61
   LOCATION L0000765     VOLUME   462124.368 3769234.685 327.61
   LOCATION L0000766     VOLUME   462136.560 3769234.650 327.61
   LOCATION L0000767     VOLUME   462148.752 3769234.615 327.61
   LOCATION L0000768     VOLUME   462160.944 3769234.579 327.61
** End of LINE VOLUME Source ID = SLOVER
   LOCATION IDLING       POINT      461555.730  3769145.780      327.690
** DESCRSRC Truck Idling
** Source Parameters **
** LINE VOLUME Source ID = DWY1
   SRCPARAM L0000549     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000550     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000551     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000552     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000553     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000554     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000555     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000556     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000557     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000558     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000559     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000560     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000561     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000562     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000563     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000564     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000565     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000566     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000567     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000568     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000569     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000570     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000571     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000572     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000573     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000574     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000575     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000576     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000577     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000578     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000579     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000580     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000581     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000582     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000583     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000584     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000585     0.000000009769      0.00      1.70      0.85
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   SRCPARAM L0000586     0.000000009769      0.00      1.70      0.85
   SRCPARAM L0000587     0.000000009769      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = DWY2
   SRCPARAM L0000588     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000589     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000590     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000591     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000592     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000593     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000594     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000595     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000596     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000597     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000598     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000599     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000600     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000601     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000602     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000603     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000604     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000605     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000606     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000607     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000608     0.000000009591      0.00      1.70      0.85
   SRCPARAM L0000609     0.000000009591      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = DWY3
   SRCPARAM L0000610     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000611     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000612     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000613     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000614     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000615     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000616     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000617     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000618     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000619     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000620     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000621     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000622     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000623     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000624     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000625     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000626     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000627     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000628     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000629     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000630     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000631     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000632     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000633     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000634     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000635     0.000000009638      0.00      1.70      0.85
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   SRCPARAM L0000636     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000637     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000638     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000639     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000640     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000641     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000642     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000643     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000644     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000645     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000646     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000647     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000648     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000649     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000650     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000651     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000652     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000653     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000654     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000655     0.000000009638      0.00      1.70      0.85
   SRCPARAM L0000656     0.000000009638      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = ALDER
   SRCPARAM L0000657     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000658     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000659     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000660     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000661     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000662     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000663     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000664     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000665     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000666     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000667     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000668     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000669     0.000000008429      0.00      1.70      0.85
   SRCPARAM L0000670     0.000000008429      0.00      1.70      0.85
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLOVER
   SRCPARAM L0000671     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000672     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000673     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000674     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000675     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000676     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000677     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000678     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000679     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000680     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000681     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000682     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000683     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000684     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000685     0.00000004082      0.00      5.67      0.85
```

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   SRCPARAM L0000767     0.00000004082      0.00      5.67      0.85
   SRCPARAM L0000768     0.00000004082      0.00      5.67      0.85
** ------------------------------------------------------------------
   SRCPARAM IDLING       0.0000301     3.840   366.000  50.00000     0.100

** Building Downwash **
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41
   BUILDHGT IDLING          13.41    13.41    13.41    13.41    13.41    13.41

   BUILDWID IDLING         270.09   276.54   274.58   264.29   245.96   220.16
   BUILDWID IDLING         187.67   149.48   107.59   149.86   188.07   220.57
   BUILDWID IDLING         246.36   264.67   274.93   276.84   270.34   255.74
   BUILDWID IDLING         270.09   276.54   274.58   264.29   245.96   220.16
   BUILDWID IDLING         187.67   149.48   107.59   149.86   188.07   220.57
   BUILDWID IDLING         246.36   264.67   274.93   276.84   270.34   255.74

   BUILDLEN IDLING         149.86   188.07   220.57   246.36   264.67   274.93
   BUILDLEN IDLING         276.84   270.34   255.74   270.09   276.54   274.58
   BUILDLEN IDLING         264.29   245.96   220.16   187.67   149.48   107.59
   BUILDLEN IDLING         149.86   188.07   220.57   246.36   264.67   274.93
   BUILDLEN IDLING         276.84   270.34   255.74   270.09   276.54   274.58
   BUILDLEN IDLING         264.29   245.96   220.16   187.67   149.48   107.59
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   XBADJ    IDLING        -119.03  -136.14  -149.11  -157.55  -161.21  -159.96
   XBADJ    IDLING        -153.86  -143.08  -127.95  -127.18  -122.85  -114.78
   XBADJ    IDLING        -103.24   -88.55   -71.17   -51.63   -30.53    -9.28
   XBADJ    IDLING         -30.83   -51.93   -71.45   -88.80  -103.46  -114.97
   XBADJ    IDLING        -122.99  -127.27  -127.79  -142.91  -153.69  -159.80
   XBADJ    IDLING        -161.05  -157.41  -148.99  -136.04  -118.96   -98.31

   YBADJ    IDLING          -7.87   -15.42   -22.51   -28.91   -34.43   -38.91
   YBADJ    IDLING         -42.20   -44.22   -44.52   -44.10   -42.11   -38.83
   YBADJ    IDLING         -34.37   -28.87   -22.50   -15.44    -7.91    -0.08
   YBADJ    IDLING           7.87    15.42    22.51    28.91    34.43    38.91
   YBADJ    IDLING          42.20    44.22    44.52    44.10    42.11    38.83
   YBADJ    IDLING          34.37    28.87    22.50    15.44     7.91     0.08

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
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**
**
RE STARTING
   INCLUDED DPM2041.rou
RE FINISHED
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** AERMOD Meteorology Pathway
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**
**
ME STARTING
   SURFFILE ..\FontanaADJU\FONT_V9_ADJU\FONT_v9.SFC
   PROFFILE ..\FontanaADJU\FONT_V9_ADJU\FONT_v9.PFL
   SURFDATA 3102 2011 Fontana
   UAIRDATA 3190 2011
   SITEDATA 99999 2011
   PROFBASE 367.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST DPM2041.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL DPM2041.AD\AN00GALL.PLT 32
   SUMMFILE DPM2041.sum
OU FINISHED
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**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
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* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
461352.00000	3769256.00000	0.00063	330.00	330.00	0.00	ANNUAL	ALL	00000005	
461484.00000	3769257.00000	0.00098	329.36	329.36	0.00	ANNUAL	ALL	00000005	
461729.00000	3769204.00000	0.00187	328.00	328.00	0.00	ANNUAL	ALL	00000005	
461780.00000	3769203.00000	0.00130	327.85	327.85	0.00	ANNUAL	ALL	00000005	
461786.00000	3769062.00000	0.00045	325.92	561.00	0.00	ANNUAL	ALL	00000005	
461726.00000	3769022.00000	0.00046	325.52	561.00	0.00	ANNUAL	ALL	00000005	
461645.00000	3769015.00000	0.00050	326.00	562.00	0.00	ANNUAL	ALL	00000005	
461568.00000	3768930.00000	0.00085	325.00	562.00	0.00	ANNUAL	ALL	00000005	
461434.00000	3769023.00000	0.00115	327.00	562.00	0.00	ANNUAL	ALL	00000005	
461372.00000	3769044.00000	0.00093	327.26	562.00	0.00	ANNUAL	ALL	00000005	
461382.00000	3769140.00000	0.00074	328.46	561.00	0.00	ANNUAL	ALL	00000005	
461286.00000	3769219.00000	0.00063	330.00	330.00	0.00	ANNUAL	ALL	00000005	

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

APPENDIX F

CalEEMod Model Annual Printouts

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Annual

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

Slover-Alder Avenue Industrial

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	259.48	1000sqft	7.94	259,481.00	0
Parking Lot	5.29	Acre	5.29	230,432.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Project Site = 13.23 acres

Construction Phase - Construction schedule provided by applicant

Off-road Equipment - Grading - 2 Excavators, 1 Grader, 1 Rubber Tired Dozer, 2 Scrapers, 2 Crawler Tractors

Off-road Equipment - Site Preparation - 3 Rubber Tired Dozers and 4 Crawler Tractors

Trips and VMT - 6 vendor trucks added to Demolition, Site Prep, and Grading Phases to account for water truck emissions

Demolition - 16,800 sq ft of building space = 773 tons + 117,000 sq ft of pavement = 2,828 tons

Grading -

Vehicle Trips - Truck Trips analyzed under Parking Lot Land use and the Auto Trips analyzed under the Unrefrigerated Warehouse Land Use

Construction Off-road Equipment Mitigation - Water Exposed Area 3x per day selected to account for SCAQMD Rule 403 minimum requirements

Mobile Land Use Mitigation - Improve Pedestrian Network on Project Site and Connecting Offsite and 0.06 mile to nearest Transit Station

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Annual

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

Energy Mitigation -

Water Mitigation - Install Low-Flow fixtures and use water-efficient Irrigation Systems selected to account for Title 24 Part 11 requirements

Waste Mitigation - 50% reduction in solid waste selected to account for AB 341

Operational Off-Road Equipment - 4 Forklifts 7 hours per day. Per PDF 1, analyzed as CNG fuel

Fleet Mix - Vehicle Mix set to match Trip Generation Memo

Water And Wastewater -

Architectural Coating -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	129741	129688
tblAreaCoating	Area_Nonresidential_Interior	389222	389064
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	130.00
tblFleetMix	HHD	0.02	0.60
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.58
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1960e-003	0.22
tblFleetMix	LHD2	7.1960e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MDV	0.14	0.00

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Annual

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

tblFleetMix	MDV	0.14	0.15
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MHD	0.01	0.18
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblLandUse	LandUseSquareFeet	259,480.00	259,481.00
tblLandUse	LotAcreage	5.96	7.94
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	7.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	CC_TL	8.40	40.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	21.36
tblVehicleTrips	ST_TR	1.74	0.97
tblVehicleTrips	SU_TR	0.00	21.36
tblVehicleTrips	SU_TR	1.74	0.97
tblVehicleTrips	WD_TR	0.00	21.36
tblVehicleTrips	WD_TR	1.74	0.97

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

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3242	2.8403	2.7583	6.8300e-003	0.5312	0.1208	0.6520	0.1760	0.1128	0.2888	0.0000	615.3898	615.3898	0.1001	0.0235	624.8971
2023	1.5018	2.0166	2.8861	6.2600e-003	0.2347	0.0896	0.3243	0.0632	0.0839	0.1470	0.0000	564.0292	564.0292	0.0886	0.0188	571.8309
Maximum	**1.5018**	**2.8403**	**2.8861**	**6.8300e-003**	**0.5312**	**0.1208**	**0.6520**	**0.1760**	**0.1128**	**0.2888**	**0.0000**	**615.3898**	**615.3898**	**0.1001**	**0.0235**	**624.8971**

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	0.3242	2.8403	2.7583	6.8300e-003	0.3473	0.1208	0.4682	0.1065	0.1128	0.2192	0.0000	615.3894	615.3894	0.1001	0.0235	624.8967
2023	1.5018	2.0166	2.8861	6.2600e-003	0.2347	0.0896	0.3243	0.0632	0.0839	0.1470	0.0000	564.0288	564.0288	0.0886	0.0188	571.8305
Maximum	**1.5018**	**2.8403**	**2.8861**	**6.8300e-003**	**0.3473**	**0.1208**	**0.4682**	**0.1065**	**0.1128**	**0.2192**	**0.0000**	**615.3894**	**615.3894**	**0.1001**	**0.0235**	**624.8967**

Slover-Alder Avenue Industrial - San Bernardino-South Coast County, Annual

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	24.00	0.00	18.83	29.07	0.00	15.96	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2022	5-31-2022	1.4370	1.4370
2	6-1-2022	8-31-2022	0.7357	0.7357
3	9-1-2022	11-30-2022	0.7312	0.7312
4	12-1-2022	2-28-2023	1.1714	1.1714
5	3-1-2023	5-31-2023	1.7207	1.7207
6	6-1-2023	8-31-2023	0.8783	0.8783
		Highest	1.7207	1.7207

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	tons/yr										MT/yr					
Area	1.0763	3.0000e-005	3.3800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5700e-003	6.5700e-003	2.0000e-005	0.0000	7.0000e-003
Energy	2.8100e-003	0.0256	0.0215	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	148.8967	148.8967	0.0108	1.7500e-003	149.6867
Mobile	0.2295	3.6667	2.6689	0.0224	1.1243	0.0383	1.1626	0.3105	0.0366	0.3471	0.0000	2,166.8777	2,166.8777	0.0781	0.2807	2,252.4884
Offroad	6.6200e-003	0.3228	4.2173	7.0000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	79.8153	79.8153	0.0258	0.0000	80.4607
Waste						0.0000	0.0000		0.0000	0.0000	49.5115	0.0000	49.5115	2.9261	0.0000	122.6627
Water						0.0000	0.0000		0.0000	0.0000	19.0367	138.5640	157.6007	1.9670	0.0476	220.9549
Total	**1.3152**	**4.0150**	**6.9110**	**0.0232**	**1.1243**	**0.0455**	**1.1698**	**0.3105**	**0.0437**	**0.3543**	**68.5483**	**2,534.1603**	**2,602.7086**	**5.0077**	**0.3301**	**2,826.2604**

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	1.0763	3.0000e-005	3.3800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5700e-003	6.5700e-003	2.0000e-005	0.0000	7.0000e-003
Energy	2.8100e-003	0.0256	0.0215	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	148.8967	148.8967	0.0108	1.7500e-003	149.6867
Mobile	0.1960	2.8546	2.1485	0.0171	0.8531	0.0291	0.8822	0.2356	0.0278	0.2634	0.0000	1,654.1030	1,654.1030	0.0609	0.2150	1,719.6996
Offroad	6.6200e-003	0.3228	4.2173	7.0000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	79.8153	79.8153	0.0258	0.0000	80.4607
Waste						0.0000	0.0000		0.0000	0.0000	24.7558	0.0000	24.7558	1.4630	0.0000	61.3314
Water						0.0000	0.0000		0.0000	0.0000	16.0670	116.9480	133.0150	1.6601	0.0402	186.4860
Total	**1.2817**	**3.2029**	**6.3906**	**0.0179**	**0.8531**	**0.0363**	**0.8894**	**0.2356**	**0.0350**	**0.2706**	**40.8228**	**1,999.7696**	**2,040.5924**	**3.2206**	**0.2569**	**2,197.6712**

	ROG	NOx	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	**2.54**	**20.23**	**7.53**	**22.80**	**24.13**	**20.17**	**23.97**	**24.13**	**20.03**	**23.62**	**40.45**	**21.09**	**21.60**	**35.69**	**22.16**	**22.24**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2022	3/28/2022	5	20	
2	Site Preparation	Site Preparation	3/29/2022	4/11/2022	5	10	

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

3	Grading	Grading	4/12/2022	5/23/2022	5	30	
4	Building Construction	Building Construction	5/24/2022	7/17/2023	5	300	
5	Paving	Paving	1/17/2023	7/17/2023	5	130	
6	Architectural Coating	Architectural Coating	1/17/2023	7/17/2023	5	130	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 120

Acres of Paving: 5.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 389,222; Non-Residential Outdoor: 129,741; Striped Parking Area: 13,826 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42

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

Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	356.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	206.00	80.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	41.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0385	0.0000	0.0385	5.8300e-003	0.0000	5.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0385**	**0.0124**	**0.0510**	**5.8300e-003**	**0.0116**	**0.0174**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	6.6000e-004	0.0256	6.3900e-003	1.0000e-004	3.0700e-003	2.5000e-004	3.3200e-003	8.4000e-004	2.4000e-004	1.0900e-003	0.0000	10.3454	10.3454	4.4000e-004	1.6400e-003	10.8450
Vendor	1.0000e-004	2.7600e-003	9.8000e-004	1.0000e-005	3.8000e-004	3.0000e-005	4.1000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.0895	1.0895	3.0000e-005	1.6000e-004	1.1383
Worker	5.7000e-004	4.4000e-004	5.3200e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.3193	1.3193	4.0000e-005	4.0000e-005	1.3315
Total	**1.3300e-003**	**0.0288**	**0.0127**	**1.2000e-004**	**5.0900e-003**	**2.9000e-004**	**5.3800e-003**	**1.3900e-003**	**2.8000e-004**	**1.6700e-003**	**0.0000**	**12.7542**	**12.7542**	**5.1000e-004**	**1.8400e-003**	**13.3149**

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0150	0.0000	0.0150	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0150**	**0.0124**	**0.0275**	**2.2700e-003**	**0.0116**	**0.0138**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	6.6000e-004	0.0256	6.3900e-003	1.0000e-004	3.0700e-003	2.5000e-004	3.3200e-003	8.4000e-004	2.4000e-004	1.0900e-003	0.0000	10.3454	10.3454	4.4000e-004	1.6400e-003	10.8450
Vendor	1.0000e-004	2.7600e-003	9.8000e-004	1.0000e-005	3.8000e-004	3.0000e-005	4.1000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.0895	1.0895	3.0000e-005	1.6000e-004	1.1383
Worker	5.7000e-004	4.4000e-004	5.3200e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.3193	1.3193	4.0000e-005	4.0000e-005	1.3315
Total	**1.3300e-003**	**0.0288**	**0.0127**	**1.2000e-004**	**5.0900e-003**	**2.9000e-004**	**5.3800e-003**	**1.3900e-003**	**2.8000e-004**	**1.6700e-003**	**0.0000**	**12.7542**	**12.7542**	**5.1000e-004**	**1.8400e-003**	**13.3149**

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

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1089	0.0000	0.1089	0.0517	0.0000	0.0517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2521	0.1000	2.8000e-004		0.0108	0.0108		9.9300e-003	9.9300e-003	0.0000	25.0258	25.0258	8.0900e-003	0.0000	25.2281
Total	**0.0224**	**0.2521**	**0.1000**	**2.8000e-004**	**0.1089**	**0.0108**	**0.1197**	**0.0517**	**9.9300e-003**	**0.0616**	**0.0000**	**25.0258**	**25.0258**	**8.0900e-003**	**0.0000**	**25.2281**

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	5.0000e-005	1.3800e-003	4.9000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5448	0.5448	1.0000e-005	8.0000e-005	0.5692
Worker	3.4000e-004	2.7000e-004	3.1900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7916	0.7916	2.0000e-005	2.0000e-005	0.7989
Total	**3.9000e-004**	**1.6500e-003**	**3.6800e-003**	**2.0000e-005**	**1.1800e-003**	**3.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.3363**	**1.3363**	**3.0000e-005**	**1.0000e-004**	**1.3681**

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

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0425	0.0000	0.0425	0.0202	0.0000	0.0202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2521	0.1000	2.8000e-004		0.0108	0.0108		9.9300e-003	9.9300e-003	0.0000	25.0257	25.0257	8.0900e-003	0.0000	25.2281
Total	**0.0224**	**0.2521**	**0.1000**	**2.8000e-004**	**0.0425**	**0.0108**	**0.0533**	**0.0202**	**9.9300e-003**	**0.0301**	**0.0000**	**25.0257**	**25.0257**	**8.0900e-003**	**0.0000**	**25.2281**

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	5.0000e-005	1.3800e-003	4.9000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5448	0.5448	1.0000e-005	8.0000e-005	0.5692
Worker	3.4000e-004	2.7000e-004	3.1900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7916	0.7916	2.0000e-005	2.0000e-005	0.7989
Total	**3.9000e-004**	**1.6500e-003**	**3.6800e-003**	**2.0000e-005**	**1.1800e-003**	**3.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.3363**	**1.3363**	**3.0000e-005**	**1.0000e-004**	**1.3681**

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

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1540	0.0000	0.1540	0.0565	0.0000	0.0565	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0642	0.7126	0.4379	1.0700e-003		0.0286	0.0286		0.0263	0.0263	0.0000	94.2610	94.2610	0.0305	0.0000	95.0231
Total	**0.0642**	**0.7126**	**0.4379**	**1.0700e-003**	**0.1540**	**0.0286**	**0.1826**	**0.0565**	**0.0263**	**0.0829**	**0.0000**	**94.2610**	**94.2610**	**0.0305**	**0.0000**	**95.0231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.1500e-003	1.4700e-003	2.0000e-005	5.7000e-004	5.0000e-005	6.1000e-004	1.6000e-004	4.0000e-005	2.1000e-004	0.0000	1.6343	1.6343	4.0000e-005	2.4000e-004	1.7075
Worker	1.1300e-003	8.9000e-004	0.0107	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.6386	2.6386	8.0000e-005	8.0000e-005	2.6631
Total	**1.2800e-003**	**5.0400e-003**	**0.0121**	**5.0000e-005**	**3.8600e-003**	**7.0000e-005**	**3.9200e-003**	**1.0300e-003**	**6.0000e-005**	**1.1000e-003**	**0.0000**	**4.2728**	**4.2728**	**1.2000e-004**	**3.2000e-004**	**4.3705**

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

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0600	0.0000	0.0600	0.0220	0.0000	0.0220	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0642	0.7126	0.4379	1.0700e-003		0.0286	0.0286		0.0263	0.0263	0.0000	94.2609	94.2609	0.0305	0.0000	95.0230
Total	**0.0642**	**0.7126**	**0.4379**	**1.0700e-003**	**0.0600**	**0.0286**	**0.0887**	**0.0220**	**0.0263**	**0.0484**	**0.0000**	**94.2609**	**94.2609**	**0.0305**	**0.0000**	**95.0230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.1500e-003	1.4700e-003	2.0000e-005	5.7000e-004	5.0000e-005	6.1000e-004	1.6000e-004	4.0000e-005	2.1000e-004	0.0000	1.6343	1.6343	4.0000e-005	2.4000e-004	1.7075
Worker	1.1300e-003	8.9000e-004	0.0107	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.6386	2.6386	8.0000e-005	8.0000e-005	2.6631
Total	**1.2800e-003**	**5.0400e-003**	**0.0121**	**5.0000e-005**	**3.8600e-003**	**7.0000e-005**	**3.9200e-003**	**1.0300e-003**	**6.0000e-005**	**1.1000e-003**	**0.0000**	**4.2728**	**4.2728**	**1.2000e-004**	**3.2000e-004**	**4.3705**

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1357	1.2414	1.3009	2.1400e-003		0.0643	0.0643		0.0605	0.0605	0.0000	184.2216	184.2216	0.0441	0.0000	185.3249
Total	**0.1357**	**1.2414**	**1.3009**	**2.1400e-003**		**0.0643**	**0.0643**		**0.0605**	**0.0605**	**0.0000**	**184.2216**	**184.2216**	**0.0441**	**0.0000**	**185.3249**

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	0.0108	0.2930	0.1039	1.1900e-003	0.0401	3.3200e-003	0.0434	0.0116	3.1700e-003	0.0148	0.0000	115.4873	115.4873	3.1100e-003	0.0171	120.6619
Worker	0.0617	0.0485	0.5811	1.5600e-003	0.1796	9.6000e-004	0.1805	0.0477	8.8000e-004	0.0486	0.0000	144.0405	144.0405	4.1000e-003	4.1400e-003	145.3766
Total	**0.0726**	**0.3414**	**0.6850**	**2.7500e-003**	**0.2197**	**4.2800e-003**	**0.2240**	**0.0593**	**4.0500e-003**	**0.0633**	**0.0000**	**259.5279**	**259.5279**	**7.2100e-003**	**0.0212**	**266.0385**

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3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1357	1.2414	1.3009	2.1400e-003		0.0643	0.0643		0.0605	0.0605	0.0000	184.2214	184.2214	0.0441	0.0000	185.3247
Total	**0.1357**	**1.2414**	**1.3009**	**2.1400e-003**		**0.0643**	**0.0643**		**0.0605**	**0.0605**	**0.0000**	**184.2214**	**184.2214**	**0.0441**	**0.0000**	**185.3247**

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	0.0108	0.2930	0.1039	1.1900e-003	0.0401	3.3200e-003	0.0434	0.0116	3.1700e-003	0.0148	0.0000	115.4873	115.4873	3.1100e-003	0.0171	120.6619
Worker	0.0617	0.0485	0.5811	1.5600e-003	0.1796	9.6000e-004	0.1805	0.0477	8.8000e-004	0.0486	0.0000	144.0405	144.0405	4.1000e-003	4.1400e-003	145.3766
Total	**0.0726**	**0.3414**	**0.6850**	**2.7500e-003**	**0.2197**	**4.2800e-003**	**0.2240**	**0.0593**	**4.0500e-003**	**0.0633**	**0.0000**	**259.5279**	**259.5279**	**7.2100e-003**	**0.0212**	**266.0385**

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3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0141	1.1452	1.9000e-003		0.0493	0.0493		0.0464	0.0464	0.0000	163.4224	163.4224	0.0389	0.0000	164.3942
Total	**0.1109**	**1.0141**	**1.1452**	**1.9000e-003**		**0.0493**	**0.0493**		**0.0464**	**0.0464**	**0.0000**	**163.4224**	**163.4224**	**0.0389**	**0.0000**	**164.3942**

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	6.3600e-003	0.2081	0.0842	1.0100e-003	0.0356	1.4900e-003	0.0371	0.0103	1.4200e-003	0.0117	0.0000	98.2956	98.2956	2.5600e-003	0.0145	102.6884
Worker	0.0506	0.0378	0.4726	1.3400e-003	0.1592	8.0000e-004	0.1600	0.0423	7.4000e-004	0.0430	0.0000	124.3690	124.3690	3.2600e-003	3.3700e-003	125.4562
Total	**0.0570**	**0.2459**	**0.5568**	**2.3500e-003**	**0.1948**	**2.2900e-003**	**0.1971**	**0.0526**	**2.1600e-003**	**0.0547**	**0.0000**	**222.6646**	**222.6646**	**5.8200e-003**	**0.0179**	**228.1446**

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3.5 Building Construction - 2023

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	0.1109	1.0141	1.1452	1.9000e-003		0.0493	0.0493		0.0464	0.0464	0.0000	163.4222	163.4222	0.0389	0.0000	164.3940
Total	**0.1109**	**1.0141**	**1.1452**	**1.9000e-003**		**0.0493**	**0.0493**		**0.0464**	**0.0464**	**0.0000**	**163.4222**	**163.4222**	**0.0389**	**0.0000**	**164.3940**

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	6.3600e-003	0.2081	0.0842	1.0100e-003	0.0356	1.4900e-003	0.0371	0.0103	1.4200e-003	0.0117	0.0000	98.2956	98.2956	2.5600e-003	0.0145	102.6884
Worker	0.0506	0.0378	0.4726	1.3400e-003	0.1592	8.0000e-004	0.1600	0.0423	7.4000e-004	0.0430	0.0000	124.3690	124.3690	3.2600e-003	3.3700e-003	125.4562
Total	**0.0570**	**0.2459**	**0.5568**	**2.3500e-003**	**0.1948**	**2.2900e-003**	**0.1971**	**0.0526**	**2.1600e-003**	**0.0547**	**0.0000**	**222.6646**	**222.6646**	**5.8200e-003**	**0.0179**	**228.1446**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0671	0.6625	0.9480	1.4800e-003		0.0332	0.0332		0.0305	0.0305	0.0000	130.1746	130.1746	0.0421	0.0000	131.2272
Paving	6.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0741**	**0.6625**	**0.9480**	**1.4800e-003**		**0.0332**	**0.0332**		**0.0305**	**0.0305**	**0.0000**	**130.1746**	**130.1746**	**0.0421**	**0.0000**	**131.2272**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-003	2.5400e-003	0.0317	9.0000e-005	0.0107	5.0000e-005	0.0107	2.8400e-003	5.0000e-005	2.8900e-003	0.0000	8.3495	8.3495	2.2000e-004	2.3000e-004	8.4225
Total	**3.4000e-003**	**2.5400e-003**	**0.0317**	**9.0000e-005**	**0.0107**	**5.0000e-005**	**0.0107**	**2.8400e-003**	**5.0000e-005**	**2.8900e-003**	**0.0000**	**8.3495**	**8.3495**	**2.2000e-004**	**2.3000e-004**	**8.4225**

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3.6 Paving - 2023

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	0.0671	0.6625	0.9480	1.4800e-003		0.0332	0.0332		0.0305	0.0305	0.0000	130.1745	130.1745	0.0421	0.0000	131.2270
Paving	6.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0741**	**0.6625**	**0.9480**	**1.4800e-003**		**0.0332**	**0.0332**		**0.0305**	**0.0305**	**0.0000**	**130.1745**	**130.1745**	**0.0421**	**0.0000**	**131.2270**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-003	2.5400e-003	0.0317	9.0000e-005	0.0107	5.0000e-005	0.0107	2.8400e-003	5.0000e-005	2.8900e-003	0.0000	8.3495	8.3495	2.2000e-004	2.3000e-004	8.4225
Total	**3.4000e-003**	**2.5400e-003**	**0.0317**	**9.0000e-005**	**0.0107**	**5.0000e-005**	**0.0107**	**2.8400e-003**	**5.0000e-005**	**2.8900e-003**	**0.0000**	**8.3495**	**8.3495**	**2.2000e-004**	**2.3000e-004**	**8.4225**

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2347					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.0847	0.1177	1.9000e-004		4.6000e-003	4.6000e-003		4.6000e-003	4.6000e-003	0.0000	16.5962	16.5962	9.9000e-004	0.0000	16.6210
Total	**1.2472**	**0.0847**	**0.1177**	**1.9000e-004**		**4.6000e-003**	**4.6000e-003**		**4.6000e-003**	**4.6000e-003**	**0.0000**	**16.5962**	**16.5962**	**9.9000e-004**	**0.0000**	**16.6210**

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	9.2900e-003	6.9300e-003	0.0867	2.5000e-004	0.0292	1.5000e-004	0.0294	7.7600e-003	1.4000e-004	7.9000e-003	0.0000	22.8220	22.8220	6.0000e-004	6.2000e-004	23.0215
Total	**9.2900e-003**	**6.9300e-003**	**0.0867**	**2.5000e-004**	**0.0292**	**1.5000e-004**	**0.0294**	**7.7600e-003**	**1.4000e-004**	**7.9000e-003**	**0.0000**	**22.8220**	**22.8220**	**6.0000e-004**	**6.2000e-004**	**23.0215**

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

3.7 Architectural Coating - 2023

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	1.2347					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.0847	0.1177	1.9000e-004		4.6000e-003	4.6000e-003		4.6000e-003	4.6000e-003	0.0000	16.5961	16.5961	9.9000e-004	0.0000	16.6210
Total	**1.2472**	**0.0847**	**0.1177**	**1.9000e-004**		**4.6000e-003**	**4.6000e-003**		**4.6000e-003**	**4.6000e-003**	**0.0000**	**16.5961**	**16.5961**	**9.9000e-004**	**0.0000**	**16.6210**

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	9.2900e-003	6.9300e-003	0.0867	2.5000e-004	0.0292	1.5000e-004	0.0294	7.7600e-003	1.4000e-004	7.9000e-003	0.0000	22.8220	22.8220	6.0000e-004	6.2000e-004	23.0215
Total	**9.2900e-003**	**6.9300e-003**	**0.0867**	**2.5000e-004**	**0.0292**	**1.5000e-004**	**0.0294**	**7.7600e-003**	**1.4000e-004**	**7.9000e-003**	**0.0000**	**22.8220**	**22.8220**	**6.0000e-004**	**6.2000e-004**	**23.0215**

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	0.1960	2.8546	2.1485	0.0171	0.8531	0.0291	0.8822	0.2356	0.0278	0.2634	0.0000	1,654.1030	1,654.1030	0.0609	0.2150	1,719.6996
Unmitigated	0.2295	3.6667	2.6689	0.0224	1.1243	0.0383	1.1626	0.3105	0.0366	0.3471	0.0000	2,166.8777	2,166.8777	0.0781	0.2807	2,252.4884

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	112.99	112.99	112.99	1,645,198	1,248,255
Unrefrigerated Warehouse-No Rail	251.70	251.70	251.70	1,078,696	818,435
Total	364.69	364.69	364.69	2,723,895	2,066,689

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
Parking Lot	16.60	40.00	6.90	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.221000	0.177000	0.602000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.579000	0.059000	0.185000	0.150000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.027000	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	121.0645	121.0645	0.0102	1.2400e-003	121.6890
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	121.0645	121.0645	0.0102	1.2400e-003	121.6890
NaturalGas Mitigated	2.8100e-003	0.0256	0.0215	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.8323	27.8323	5.3000e-004	5.1000e-004	27.9977
NaturalGas Unmitigated	2.8100e-003	0.0256	0.0215	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.8323	27.8323	5.3000e-004	5.1000e-004	27.9977

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					
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	521557	2.8100e-003	0.0256	0.0215	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.8323	27.8323	5.3000e-004	5.1000e-004	27.9977
Total		**2.8100e-003**	**0.0256**	**0.0215**	**1.5000e-004**		**1.9400e-003**	**1.9400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**27.8323**	**27.8323**	**5.3000e-004**	**5.1000e-004**	**27.9977**

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					
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	521557	2.8100e-003	0.0256	0.0215	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.8323	27.8323	5.3000e-004	5.1000e-004	27.9977
Total		**2.8100e-003**	**0.0256**	**0.0215**	**1.5000e-004**		**1.9400e-003**	**1.9400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**27.8323**	**27.8323**	**5.3000e-004**	**5.1000e-004**	**27.9977**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	80651.3	14.3032	1.2100e-003	1.5000e-004	14.3769
Unrefrigerated Warehouse-No Rail	601996	106.7613	9.0100e-003	1.0900e-003	107.3121
Total		**121.0645**	**0.0102**	**1.2400e-003**	**121.6890**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	80651.3	14.3032	1.2100e-003	1.5000e-004	14.3769
Unrefrigerated Warehouse-No Rail	601996	106.7613	9.0100e-003	1.0900e-003	107.3121
Total		**121.0645**	**0.0102**	**1.2400e-003**	**121.6890**

6.0 Area Detail

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0763	3.0000e-005	3.3800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5700e-003	6.5700e-003	2.0000e-005	0.0000	7.0000e-003
Unmitigated	1.0763	3.0000e-005	3.3800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5700e-003	6.5700e-003	2.0000e-005	0.0000	7.0000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.3800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5700e-003	6.5700e-003	2.0000e-005	0.0000	7.0000e-003
Total	**1.0763**	**3.0000e-005**	**3.3800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.5700e-003**	**6.5700e-003**	**2.0000e-005**	**0.0000**	**7.0000e-003**

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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	0.1234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.1000e-004	3.0000e-005	3.3800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.5700e-003	6.5700e-003	2.0000e-005	0.0000	7.0000e-003
Total	**1.0763**	**3.0000e-005**	**3.3800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.5700e-003**	**6.5700e-003**	**2.0000e-005**	**0.0000**	**7.0000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

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	133.0150	1.6601	0.0402	186.4860
Unmitigated	157.6007	1.9670	0.0476	220.9549

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	60.0048 / 0	157.6007	1.9670	0.0476	220.9549
Total		**157.6007**	**1.9670**	**0.0476**	**220.9549**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	50.644 / 0	133.0150	1.6601	0.0402	186.4860
Total		**133.0150**	**1.6601**	**0.0402**	**186.4860**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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	24.7558	1.4630	0.0000	61.3314
Unmitigated	49.5115	2.9261	0.0000	122.6627

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	243.91	49.5115	2.9261	0.0000	122.6627
Total		**49.5115**	**2.9261**	**0.0000**	**122.6627**

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	121.955	24.7558	1.4630	0.0000	61.3314
Total		**24.7558**	**1.4630**	**0.0000**	**61.3314**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	4	7.00	260	89	0.20	CNG

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

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Forklifts	6.6200e-003	0.3228	4.2173	7.0000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	79.8153	79.8153	0.0258	0.0000	80.4607
Total	**6.6200e-003**	**0.3228**	**4.2173**	**7.0000e-004**		**5.2100e-003**	**5.2100e-003**		**5.2100e-003**	**5.2100e-003**	**0.0000**	**79.8153**	**79.8153**	**0.0258**	**0.0000**	**80.4607**

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