



KUNZMAN ASSOCIATES, INC.

ALABAMA VENTURE 1 PROJECT

**AIR QUALITY, GLOBAL CLIMATE CHANGE, AND
HEALTH RISK ASSESSMENT IMPACT ANALYSIS**

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I. Introduction and Setting

A. Purpose and Objectives

This study was performed to address the possibility of regional and local air quality impacts, global climate change impacts, and cancer risk from diesel air emissions. The objectives of the study include:

- documentation of the atmospheric setting
- discussion of criteria pollutants and greenhouse gases
- discussion of the air quality and global climate change regulatory framework
- discussion of the air quality, greenhouse gases, and cancer risk thresholds of significance
- analysis of the construction related air quality and greenhouse gas emissions
- analysis of the operations related air quality and greenhouse gas emissions
- analysis of the operations related cancer risk from diesel emissions
- analysis of the conformity of the proposed project with the SCAQMD AQMP
- recommendations for mitigation measures

The County of San Bernardino is the lead agency responsible for preparation of this air quality analysis, in accordance with the California Environmental Quality Act authorizing legislation. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with terms unique to air quality and global climate change, a definition of terms has been provided in Appendix A.

B. Project Location

The project site is located north of Almond Avenue and west of Alabama Street in an unincorporated portion of the County of San Bernardino. A vicinity map showing the project location is provided on Figure 1.

According to the SCAQMD's MATES-III study, the project area has an estimated cancer risk of 817 in one million chance of cancer from toxic air emissions. In comparison the average cancer risk for San Bernardino County is 631 in one million. This increased cancer risk is largely due to the proximity to the I-10 and I-210 Freeways.

C. Project Description

The project site is proposed to be developed with a 313,470 square foot high-cube warehouse distribution center on a 14.81 acre project site. Figure 2 illustrates the project site plan.

D. Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site consist of the Packing House Church and school that is adjacent to the north and west sides of the project site. There is also a

proposed 306 unit multi-family attached residential project that was approved by the Board of Supervisors on August 21, 2012 and located on the north side of Lugonia Avenue, which is approximately 1,000 feet southwest of the project site.

Figure 1
Project Location Map

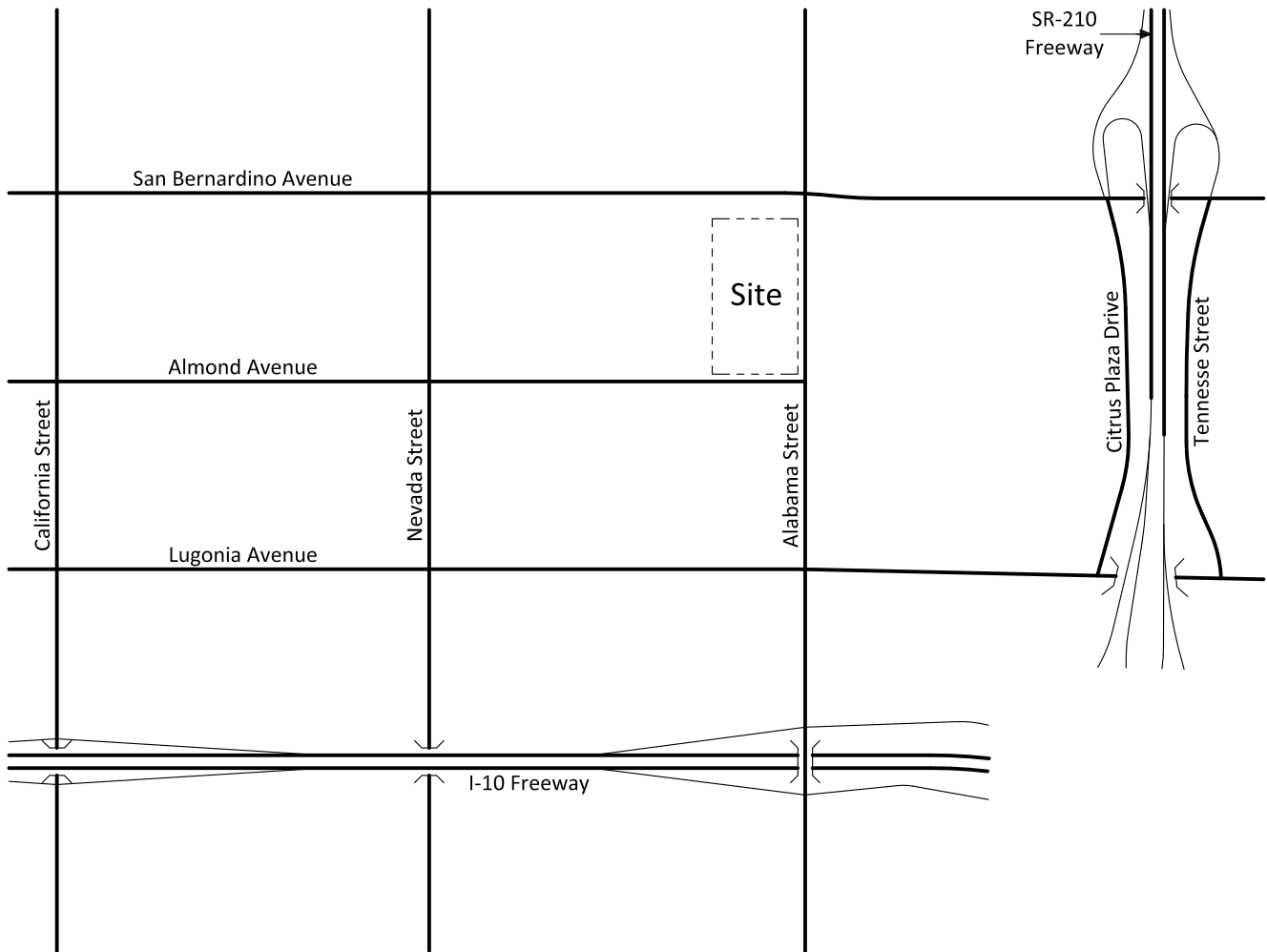
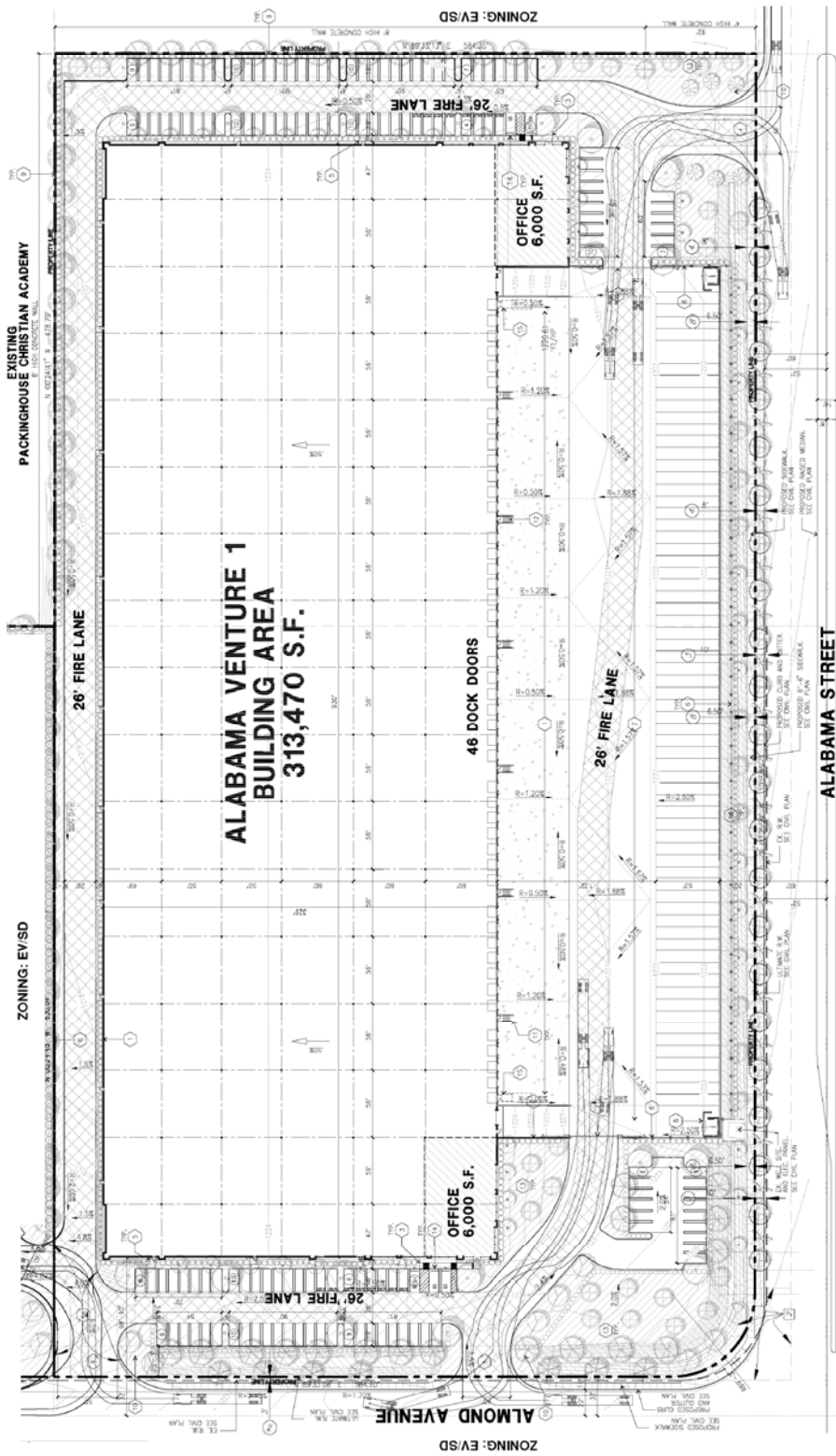


Figure 2
Site Plan



II. Atmospheric Setting

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

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 populated areas of the Los Angeles Basin. This airflow brings polluted air into western San Bernardino County late in the afternoon. This transport pattern creates unhealthy 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 South Coast Air Basin into the interior valleys which become trapped by the mountains that border the eastern edge of the South Coast 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 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 City of Redlands, which is the nearest weather monitoring station to the project site is shown below in Table 1. Table 1 shows that August is typically the warmest month and December 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 1

Redlands Monthly Climate Data¹

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	67	67	71	76	81	88	95	96	92	82	74	67
Avg. Min. Temperature	41	42	45	48	53	57	62	62	59	52	45	40
Avg. Total Precipitation (in.)	2.71	3.13	1.97	0.97	0.29	0.11	0.07	0.13	0.28	0.65	1.07	1.98

¹ Source: <http://www.weather.com/weather/wxclimatology/monthly/graph/USCA0923>

III. Pollutants

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.

A. Criteria Pollutants

The criteria pollutants consist of: ozone, nitrogen oxides, carbon monoxide, sulfur oxides, lead, and particulate matter. 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.

1. Nitrogen Oxides

Nitrogen Oxides (NO_x) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_x are colorless and odorless, concentrations of nitrogen dioxide (NO₂) can often be seen as a reddish-brown layer over many urban areas. NO_x 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. NO_x reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO₂, 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 NO_x is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

2. Ozone

Ozone is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NO_x and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_x 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 NO_x and VOC are ozone precursors, the health effects associated

with ozone are also indirect health effects associated with significant levels of NO_x and VOC emissions.

3. 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 about 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.

4. Sulfur Oxides

Sulfur Oxide (SO_x) gases are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SO_x 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.

5. 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.

6. Particulate Matter

Particle matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particle matter 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) 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) 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.

7. Volatile Organic Compounds (VOC)

Although not a criteria pollutant, reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

B. Other Pollutants of Concern

1. Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants 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 forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants 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 toxic air contaminants with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to the 2005 California Almanac of Emissions and Air Quality, the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM_{2.5} because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant 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 diesel particulate matter 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 diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter 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.

2. Asbestos

Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant 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 within the San Jacinto Mountain range and approximately 50 miles southeast of the project site. Due to these distances to the nearest natural occurrences of asbestos, neither the project site nor any fill material imported to the site is likely to contain asbestos.

C. Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), 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. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO₂ and nitrous oxide (NO_x) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ 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.

1. 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).

2. Carbon Dioxide

The natural production and absorption of CO₂ 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. CO₂

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.

3. Methane

CH₄ is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO₂. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO₂, N₂O, and Chlorofluorocarbons (CFCs)). CH₄ 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 anthropogenic sources include fossil-fuel combustion and biomass burning.

4. Nitrous Oxide

Concentrations of N₂O 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). N₂O 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. It 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 in race cars).

5. Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) 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. It was 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.

6. 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 ($\text{CF}_3\text{CH}_2\text{F}$), 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.

7. 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.

8. 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.

9. 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.

10. Global Warming Potential

GHGs have varying global warming potential (GWP). The global warming potential 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 . One teragram of carbon dioxide equivalent (Tg CO_2e) is essentially the emissions of the gas multiplied by the global warming potential. One teragram is equal to one million metric tons.

The carbon dioxide equivalent is a good way to assess emissions because it gives weight to the global warming potential of the gas. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 2. As shown in Table 2, the global warming potential of GHGs ranges from 1 to 23,900.

Table 2**Global Warming Potentials and Atmospheric Lifetimes¹**

Gas	Atmospheric Lifetime (years)	Global Warming Potential ² (100 Year Horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane	50,000	6,500
PFC: Hexafluoroethane	10,000	9,200
Sulfur Hexafluoride	3,200	23,900

¹ Source: United States Environmental Protection Agency, 2006.

² Compared to the same quantity of CO₂ emissions.

IV. Air Quality Management

A. Regulatory Setting

The proposed project 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.

1. International

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (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. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

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.

2. Federal - United States Environmental Protection Agency

The United States Environmental Protection Agency (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. The National Ambient Air Quality Standards (NAAQS) pollutants were identified using medical evidence and are shown below in Table 3.

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 State Implementation Plan (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 State Implementation Plan (SIP).

As indicated below in Table 4, the Basin has been designated by the EPA as a non-attainment area for ozone (O₃) and suspended particulates (PM₁₀ and PM_{2.5}).

Currently, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO₂), and nitrogen dioxide (NO₂).

In 2011, the Basin exceeded federal standards for either ozone or PM_{2.5} at one or more locations on a total of 124 days, based on the current federal standards for 8-hour ozone and 24-hour PM_{2.5}. Despite substantial improvements in air quality over the past few decades, some air monitoring stations in the Basin still exceed the NAAQS for ozone more frequently than any other stations in the U.S. In 2011, three of the top five stations that exceeded the 8-hour ozone NAAQS were located in the Basin (Central San Bernardino Mountains, East San Bernardino Valley, and Metropolitan Riverside County).

PM_{2.5} in the Basin has improved significantly in recent years, with 2010 and 2011 being the cleanest years on record. In 2011, only one station in the Basin (Metropolitan Riverside County at Mira Loma) exceeded the prior annual PM_{2.5} NAAQS and the 98th percentile form of the 24-hour PM_{2.5} NAAQS, as well as the 3-year design values for these standards. Basin-wide, the federal PM_{2.5} 24-hour standard level was exceeded in 2011 on 17 sampling days. However, on December 14, 2012, the EPA revised the primary annual PM_{2.5} NAAQS from 15 µg/m³ to 12 µg/m³ and retained the 24 hour PM_{2.5} standard at 35 µg/m³, which may result in more exceedances of the standard.

The Basin is currently in attainment for the federal standards for carbon monoxide (CO), lead, sulfur dioxide (SO₂), and nitrogen dioxide (NO₂). While the concentration level of the new 1-hour NO₂ federal standard (100 ppb) was exceeded in the Basin at two stations (Central Los Angeles and Long Beach) on the same day in 2011, the NAAQS NO₂ design value has not been exceeded. Therefore, the Basin remains in attainment of the NO₂ NAAQS.

The EPA designated the Los Angeles County portion of the Basin as nonattainment for the recently revised (2008) federal lead standard (0.15 µg/m³, rolling 3-month average), due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard in the 2007-2009 period of data used. For the most recent 2009-2011 data period, only one of these stations (Vernon) still exceeded the lead standard.

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 will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

3. State – California Air Resources Board

The California Air Resources Board (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 State Implementation Plan (SIP). The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 3. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The South Coast Air Basin has been designated by the CARB as a nonattainment area for ozone, PM10 and PM2.5. Currently, the South Coast Air Basin is in attainment with the ambient air quality standards for CO, lead, SO₂, NO₂, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 µg/m³ and established an annual average standard for PM2.5 of 12 µg/m³. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour Ozone and PM2.5 Standards. The plan projects attainment for the 8-hour Ozone standard by 2024 and the PM2.5 standard by 2015.

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NO_x, 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) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California.

The CARB is also responsible for regulations pertaining to toxic air contaminants. The Air Toxics “Hot Spots” Information and Assessment Act (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 into the South Coast Air Basin. 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.

The CARB also proposed interim statewide CEQA thresholds for GHG emissions and released Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act, on October 24, 2008. The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

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. This regulation will reduce GHG emissions by 30 percent from 2002 levels by 2016. The second set of regulations “Pavley II” is currently in development and will be phased in between model years 2017 through 2025 and will reduce emissions by 45 percent by the year 2020. The Pavley II standards are being 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.

In 2005, the CARB submitted a “waiver” request to the EPA in order to implement the GHG standards and in March of 2008, the U.S. EPA denied the request. However, in June 2009, the decision was reversed and the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles. In September 2009, the Pavley I regulations were adopted by CARB.

Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, 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.

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill 32 (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 best management practices that are technologically feasible and cost effective.

On December 6, 2007 CARB released the calculated Year 1990 GHG emissions of 427 million metric tons of CO₂e (MMTCo₂e). The 2020 target of 427 MMTCo₂e requires the reduction of 169 MMTCo₂e, or approximately 30 percent from the State's projected 2020 business as usual emissions of 596 MMTCo₂e and the reduction of 42 MMTCo₂e, or almost 10 percent from the 2002-2004 average GHG emissions. 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 CO₂ 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 that became enforceable on or before January 1, 2010.

On December 11, 2008 the CARB Board approved a Scoping Plan, with final adoption May 11, 2009 that proposed a variety of measures including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, a market-based cap-and-trade system, and a fee regulation to fund the program. In current pending litigation, *Association of Irrigated Residents v. California Air Resources Board*, a California State trial court found that the analysis of the alternatives identified in the AB 32 Scoping Plan Functional Equivalent Document (FED) was not sufficient for informed decision-making and public review under CEQA. In response, CARB has appealed the decision. In addition, CARB prepared the *Supplement to the AB 32 Scoping Plan Functional Equivalent Document*, June 13, 2011. On August 24, 2011 CARB recertified the complete AB 32 Scoping Plan Functional Equivalent

Environmental Document revised by the Final Supplement. In December, 2011 the Final Supplement was accepted as sufficient to fulfill the trial court's March order.

Senate Bill 1368

Senate Bill 1368 (SB 1368) is the companion Bill of AB 32 and was adopted September, 2006. SB 1368 requires the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007 and for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas-fired plant. Furthermore, the legislation states that all electricity provided to the State, including imported electricity, must be generated by plants that meet the standards set by California Public Utilities Commission (CPUC) and California Energy Commission (CEC).

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 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.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard 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 each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume 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 as appropriate. 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 for the low carbon fuel standard.

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 address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate 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 greenhouse gas 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 greenhouse gas 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 (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Senate Bills 1078, 107, and X1-2 and Executive Orders S-14-08 and S-21-09

Senate Bill 1078 (SB 1078) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08 was signed on November 2008 and expands the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 13 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements. The Housing Element Update is required by the State to be completed within 18 months after RTP/SCS adoption or by October 2013.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and

industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 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.

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

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009.

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

CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

4. Regional

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. SCAMD defines a "sensitive receptor" as a land use such as residences, schools, child care centers, athletic facilities, playgrounds, retirement homes and convalescent homes.

South Coast Air Quality Management District

The 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. The 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. A revised draft of the 2012 AQMP was released on September, 2012, and was adopted by the SCAQMD Board on December 7, 2012. The 2012 AQMP is now awaiting approval from CARB and the U.S. EPA. The 2012 AQMP is being prepared in order to meet the federal Clean Air Act requirement that all 24-hour PM_{2.5} non-attainment areas prepare a SIP, which was required to be submitted to the U.S. EPA by December 14, 2012 and demonstrate attainment with the 24-hour PM_{2.5} standard by 2014. The 2012 AQMP demonstrates attainment of the federal 24-hour PM_{2.5} standard by 2014 in the Basin through adoption of all feasible measures, and therefore, no extension of the attainment date is needed.

The 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 NO_x 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 NO_x control measures have been provided in this AQMP even though the primary purpose of this AQMP is to show compliance with 24-hour PM_{2.5} emissions standards.

The 2012 AQMP is designed to satisfy the California Clean Air Act's (CCAA) emission reductions of 5 percent per year or adoption of all feasible measures requirements and fulfill the EPA's requirement to update transportation conformity emissions budgets based on the latest approved motor vehicle emissions model and planning assumptions. The 2012 AQMP updates and revises the previous 2007 AQMP. The 2012 AQMP was prepared to comply with the Federal and State CCAA and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet Federal and State ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive program that will lead this area into compliance with all federal and state air-quality planning requirements.

The 2012 AQMP builds upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with

the 2007 AQMP, the 2012 AQMP utilizes revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized new area source categories such as LPG transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

The control measures in the 2012 AQMP consist of three components: 1) Basin-wide and episodic short-term PM_{2.5} measures; 2) Section 182(e)(5) implementation measures; and 3) Transportation control measures. Many of the control measures are not based on command and control regulations, but instead focus on incentives, outreach, and education to bring about emissions reductions through voluntary participation and behavioral changes. More broadly, a transition to zero- and near-zero emission technologies is necessary to meet 2023 and 2032 air quality standards and 2050 climate goals. Many of the same technologies will address both air quality and climate needs.

During construction and operation, the project must comply with applicable rules and regulations. The following are rules the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM₁₀ component). Compliance with these

rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

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

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

- (1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute

nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.

- (2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
- (3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

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

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM₁₀ among other pollutants.

SCAQMD Rule 1401, New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described below.

Rules 2700 and 2701

The SCAQMD adopted Rules 2700 and 2701 on December 5, 2008, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2701 provides specific protocols for private parties to follow to generate certified GHG emission reductions for projects within the district. Approved protocols include forest projects, urban tree planting, and manure management. The SCAQMD is currently developing additional protocols for other reduction measures. For a GHG emission reduction project to qualify, it must be verified and certified by the SCAQMD Executive Officer, who has 60 days to approve or deny the Plan. Upon approval of the Plan, the Executive Officer issues required to issue a certified receipt of the GHG emission reductions within 90 days.

Rule 2702

The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

Rule 3002

The SCAQMD amended Rule 3002 on November 5, 2010 to include facilities that emit greater than 100,000 tons per year of CO₂e are required to apply for a Title V permit by July 1, 2011. A Title V permit is for facilities that are considered major sources of emissions.

Although the 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 South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance to the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the CEQA Air Quality Handbook (SCAQMD CEQA Handbook), prepared by the 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 of the AQMP. 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 the 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 South Coast Air Basin, and adverse impacts will be minimized.

SCAQMD Stakeholder Working Group

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 provides a quantitative annual thresholds of 10,000 MTCO₂e 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 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 Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. 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 Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

5. 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 2007 AQMP. 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.

Goal CO 4 from the County of San Bernardino 2007 General Plan, March 13, 2007, contains the following air quality-related policies that are applicable to the proposed project:

- CO 4.2** Coordinate air quality improvements technologies with the SCAQMD and the Mojave Air Quality Management District (MAQMD) to improve air quality through reductions in pollutants from the region.
- CO 4.4** Because congestion resulting from growth is expected to result in a significant increase in the air quality degradation, the County may manage growth by insuring the timely provision of infrastructure to serve new development.
- CO 4.5** Reduce emissions through reduced energy consumption.
- CO 4.6** Provide incentives such as preferential parking for alternative-fuel vehicles (e.g., CNG or hydrogen).

B. Monitored 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 Basin provided in the [Final 2012 Air Quality Management Plan](#), prepared by SCAQMD, December 2012, indicate that collectively, mobile sources account for 59 percent of the VOC, 88 percent of the NO_x emissions and 40 percent of directly emitted PM_{2.5}, with another 10 percent of PM_{2.5} from road dust.

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in Central San Bernardino Valley Air Monitoring Area (Area 34), which is located in San Bernardino County and covers from Fontana to Highland. The nearest air monitoring station to the project site is the San Bernardino 4th Street Monitoring Station (San Bernardino Station). The San Bernardino Station is located approximately 4.1 miles northwest of the project site at 24302 East 4th Street, San Bernardino. Table 5 presents the monitored pollutant levels from the San Bernardino Station. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

The monitoring data presented in Table 5 shows that ozone and particulate matter (PM₁₀ and PM_{2.5}) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone

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 NO₂, 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 the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The San Bernardino Station did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide

The San Bernardino Station did not record an exceedance of the State or Federal NO₂ standards for the last three years.

Particulate Matter

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.

Table 3

State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O ₃)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.075 ppm/8-hour	(a) Decline in pulmonary function 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 0.03 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 Matter (PM ₁₀)	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 pulmonary function growth in children; (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; (f) property damage.
Lead	1.5 µg/m ³ /30-day	0.15 µg/m ³ /3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

¹ Source: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>

Table 4

South Coast Air Basin Attainment Status

Pollutant	Averaging Time	National Standards ¹	Attainment Date ²	California Standards ³
1979 1-Hour Ozone ⁴	1-Hour (0.12 ppm)	Nonattainment (Extreme)	11/15/2010 (Not attained ⁴)	Extreme Nonattainment
1997 8-Hour Ozone ⁵	8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024	Nonattainment
2008 8-Hour Ozone	8-Hour (0.075 ppm)	Nonattainment (Extreme)	12/31/2032	
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (Attained)	Maintenance
NO ₂ ⁶	1-Hour (100 ppb) Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (Attained)	Attainment
SO ₂ ⁷	1-Hour (75 ppb)	Designations Pending	Pending	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (Attained)	
PM10	24-Hour (150 µg/m ³)	Nonattainment (Serious) ⁸	12/31/2006 (Redesignation request submitted) ⁸	Nonattainment
PM2.5	24-Hour (35 µg/m ³)	Unclassifiable/ Attainment	Attained	Unclassified
Lead	3-Months Rolling (0.15 µg/m ³)	Nonattainment (Partial) ⁹	12/31/2015	Nonattainment

¹ Obtained from Draft 2012 AQMP, SCAQMD, 2012. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassified/Attainment or Unclassifiable.

² 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.

³ Obtained from <http://www.arb.ca.gov/deg/adm/adm.htm>.

⁴ 1-hour O₃ standard (0.13 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data has some continuing obligations under the former standard.

⁵ 1997 8-hour O₃ standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the 1997 O₃ standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.

⁶ New NO₂ 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO₂ standard retained.

⁷ The 1971 annual and 24-hour SO₂ 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 SO₂ 1-hour standard. Area designations expected in 2012, with SSAB designated Unclassifiable/Attainment.

⁸ Annual PM10 standard was revoked, effective December 18, 2006; redesignation request to Attainment of the 24-hour PM10 standard is pending with U.S. EPA

⁹ Partial Nonattainment designation - Los Angeles County portion of Basin only.

Table 5

Local Area Air Quality Levels from the San Bernardino Air Monitoring Station¹

Pollutant (Standard) ²	Year		
	2011	2012	2013
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.135	0.124	0.139
Days > CAAQS (0.09 ppm)	40	41	22
Maximum 8-Hour Concentration (ppm)	0.121	0.109	0.112
Days > NAAQS (0.08 ppm)	39	54	36
Days > CAAQS (0.070 ppm)	66	77	53
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	1.9	3.1	-- ³
Days > NAAQS (20 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	1.74	1.64	-- ³
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppb)	61.900	67.000	72.100
Days > NAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour Concentration (ug/m ³)	128.4	68.1	177.3
Days > NAAQS (150 ug/m ³)	0	0	1
Days > CAAQS (50 ug/m ³)	2	1	2
Annual Arithmetic Mean (AAM) (ug/m ³)	31.2	32.0	32.7
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 Concentration (pg/m ³)	65.0	34.8	55.3
Days > NAAQS (35 ug/m ³)	2	0	1
Annual Arithmetic Mean (AAM) (ug/m ³)	-- ³	11.7	11.4
Annual > NAAQS (15 ug/m ³)	-- ³	no	no
Annual > CAAQS (12 ug/m ³)	-- ³	no	no

¹ Source: <http://www.arb.ca.gov/adam/>

² CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million

³ No data available.

V. Air Quality Standards

A. Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the 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, the 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 South Coast 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 6.

B. 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 South Coast 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. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO₂, CO, PM₁₀, and PM_{2.5}.

The significance thresholds for the local emissions of NO₂ and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from Table 5 above, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significant Thresholds. Table 6 shows the Localized Significant Thresholds for NO₂, CO, and PM₁₀ and PM_{2.5}.

C. 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 hazardous air pollutants (HAP), 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 hazardous air pollutants 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 hazardous air pollutants and the toxicity of the hazardous air pollutants should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

D. 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.

E. Greenhouse Gases

The County of San Bernardino GHG Emissions Reduction Plan (GHG Plan) requires the reduction of 159,423 metric tons of CO₂ equivalent emissions (MTCO₂e) 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 County of San Bernardino, August 2011, 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 MTCO₂e 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 MTCO₂e 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.

Table 6

SCAQMD Air Quality Significance Thresholds¹

Mass Daily Thresholds		
Pollutant	Construction (lbs/day)	Operation (lbs/day)
NOx	100	55
VOC	75	55
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants, Odor and GHG Thresholds		
TACs	Maximum Incremental Cancer Risk \geq 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas \geq 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ e for industrial facilities	
Local Air Quality Thresholds		
Pollutant	SCAQMD Local Thresholds	
NO ₂ -1-hour average	0.18 ppm (338 $\mu\text{g}/\text{m}^3$)	
PM10 -24-hour average		
Construction	10.4 $\mu\text{g}/\text{m}^3$	
Operations	2.5 $\mu\text{g}/\text{m}^3$	
PM2.5 -24-hour average		
Construction	10.4 $\mu\text{g}/\text{m}^3$	
Operations	2.5 $\mu\text{g}/\text{m}^3$	
SO ₂		
1-hour average	0.25 ppm	
24-hour average	0.04 ppm	
CO		
1-hour average	20 ppm (23,000 $\mu\text{g}/\text{m}^3$)	
8-hour average	9 ppm (10,000 $\mu\text{g}/\text{m}^3$)	
Lead		
30-day average	1.5 $\mu\text{g}/\text{m}^3$	
Rolling 3-month average	0.15 $\mu\text{g}/\text{m}^3$	
Quarterly average	1.5 $\mu\text{g}/\text{m}^3$	

¹ Source: <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>

VI. Short-Term Construction Impacts

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. The construction activities for the proposed project are anticipated to include: grading of 14.81 acres, construction of 313,470 square feet of building space, paving a 238 space parking lot, and application of architectural coatings. The proposed project is anticipated to start construction early 2014 and would be constructed over approximately 21 months.

A. Construction-Related Regional Impacts

The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs.

1. Construction-Related Criteria Pollutants Analysis

The following provides a discussion of the methodology used to calculate regional construction air emissions and an analysis of the proposed project's short-term construction emissions for the criteria pollutants.

Methodology

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 14.81 acres) a Fugitive Dust Control Plan or Large Operation Notification will not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Mitigation Measure 1 was included to ensure compliance with Rule 403.

The phases of the construction activities which have been analyzed below are: 1) grading, 2) building construction, 3) paving, and 4) application of architectural coatings. For details on construction modeling, please see Appendix B.

The application of architectural coatings would occur after the completion of the construction phase. Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings applied after January 1, 2014 will be limited to an average of 50 grams per liter or less and the CalEEMod model default VOC emissions have been adjusted accordingly.

Project Impacts

The construction-related criteria pollutant emissions for each phase are shown below in Table 7. Table 7 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 construction of the proposed project.

B. 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 South Coast Air Basin. The proposed project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts.

1. Local Air Quality Impacts from Construction

The SCAQMD has published a “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds” (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

- 1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
- 2) The maximum number of acres disturbed on the peak day.
- 3) Any emission control devices added onto off-road equipment.
- 4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The CalEEMod output sheets included in Appendix B show the equipment used for this analysis.

As shown in Table 8, the maximum number of acres disturbed in a day would be five acres.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. 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. The emission thresholds were calculated based on the Central San Bernardino Valley source receptor area and a disturbance of five acres per day. In order to assure that the 5 acre limitation is adhered to during grading operations, Mitigation Measure 1 is provided that limits that daily disturbed area during the site preparation and grading phases to 5 acres per day.

The nearest sensitive receptors to the project site consist of the Packing House Church and school that is adjacent to the north and west sides 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. The on-site emissions from the CalEEMod model for the different construction phases and the calculated emissions thresholds are shown in Table 9.

Mitigation Measure 2 is provided to ensure the grading contractors to comply with all applicable measures listed in SCAQMD Rule 403 to control fugitive dust including the application of water to all exposed surfaces a minimum of three times per day. The local construction emissions are shown below in Table 9. Table 9 shows that the construction-related local air emissions are less than significant.

2. Construction-Related Toxic Air Contaminant Impacts

The greatest potential for toxic air contaminant emissions would be related to diesel particulate 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. Given the relatively limited number of heavy-duty construction equipment and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

3. Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor producing

materials being utilized, no significant impact related to odors would occur during construction of the proposed project.

4. Construction-Related Cumulative Impacts

The Chiming Inc. Industrial project is currently being processed through the County that is located adjacent to the west side of the proposed project. Both the Chiming Inc. Industrial project and the proposed project are adjacent to the Packinghouse Church and school property and the cumulative impacts from both projects construction activities may result in an exceedance of local air criteria pollutant concentrations at the adjacent church and school. If the Chiming Inc., Industrial project is graded concurrently with the proposed project, this could result in a significant cumulative construction-related air impact to the Packinghouse Church and School property.

Mitigation Measure 3 would require the project applicant to coordinate their site preparation and grading activities timing with the Chiming Inc. Industrial project, in order to ensure that there are no days where earth moving activities occur concurrently for both projects. Through implementation of Mitigation Measure 3, the cumulative construction-related local air impacts to the Packinghouse Church and school would be reduced to less than significant.

Table 7

Construction-Related Regional Criteria Pollutant Emissions¹

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Grading						
On-Site ²	6.85	80.72	51.58	0.06	6.43	4.88
Off-Site ³	0.11	0.13	1.70	0.00	0.23	0.06
Total	6.96	80.85	53.28	0.06	6.66	4.94
Building Construction						
On-Site ²	3.87	31.25	18.93	0.03	2.23	2.10
Off-Site ³	2.66	13.76	36.08	0.06	3.97	1.24
Total	6.53	45.01	55.01	0.09	6.20	3.34
Paving						
On-Site ²	2.42	25.18	14.98	0.02	1.14	1.30
Off-Site ³	0.07	0.09	1.15	0.00	0.17	0.05
Total	2.49	25.26	16.13	0.02	1.31	1.35
Architectural Coating						
On-Site ²	52.87	2.57	1.90	0.00	0.22	0.22
Off-Site ³	0.26	0.32	4.14	0.01	0.61	0.16
Total	53.13	2.89	6.04	0.01	0.83	0.39
Total for Overlapping Phases⁴	62.15	73.16	77.18	0.12	8.34	5.07
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	no	no	no	no	no	no

¹ Source: CalEEMod Version 2013.2.2

² On-site emissions from equipment operated on-site that is not operated on public roads.

³ Off-site emissions from equipment operated on public roads.

⁴ Building construction, paving and painting phases may overlap

Table 8

Maximum Number of Acres Disturbed Per Day¹

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Site Grading	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Excavators	2	0.5	1
	Scrapers	2	1	2
	Tractors/Loaders/Backhoes	2	0.5	1
Total per phase		-	-	5

¹ Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds

Table 9

Local Construction Emissions at the Closest Receptors¹

Phase	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Grading	80.72	51.58	6.43	4.88
Building Construction	31.25	18.93	2.23	2.10
Paving	25.18	14.98	1.14	1.30
Architectural Coating	2.57	1.90	0.22	0.22
SCAQMD Threshold for 25 meters (82 feet) or less²	270	1,746	14	8
Exceeds Threshold?	no	no	no	no

¹ Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Central San Bernardino Valley.

² The nearest sensitive receptors consist of a church and school located adjacent to the project site, however according to LST methodology any receptor located closer than 25 meters should be based on the 25 meter threshold.

VII. Long-Term Air Quality Operational Impacts

The on-going operation of the proposed project would result in a long-term increase in air quality emissions. 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.

A. Operations-Related Regional Air Quality Impacts

The potential operations-related air emissions have been analyzed below for the criteria pollutants and cumulative impacts.

1. Operations-Related Criteria Pollutant Analysis

The operations-related criteria air quality impacts 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 313,470 square foot warehouse building, a 238 space parking lot, and 5.47 acres of landscaping. The operating emissions were based on the year 2015, which is the anticipated opening year for the proposed project. The operations daily emissions printouts from the CalEEMod model are provided in Appendix C. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are discussed below.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the Alabama Venture 1 Project Traffic Impact Analysis (Traffic Analysis), prepared by Kunzman Associates, Inc. June, 2014, into the CalEEMod Model. The Traffic Analysis found that the proposed project would create 419 automobile round trips, 18 2-axle truck round trips, 24 3-axle truck round trips, and 65 4+-axle truck round trips per day. The weekday, Saturday and Sunday trip rates for the warehouse land use in the CalEEMod was set to 1.68 trips per 1,000 square feet of building space in order to be consistent with the Traffic Analysis. The vehicle mix in the CalEEMod model was adjusted based on the vehicle mix provided in the Traffic Impact Analysis and the resultant vehicle mix is shown in Table 10. For vehicle types such as automobiles that would fit in multiple categories in the CalEEMod model, the same ratio that was provided in the default values was maintained for the project values.

Due to the proposed project's location and proposed warehouse land use, the average customer based trip length was increased to 40 miles, while the other trip lengths were based on the default values. The CalEEMod model applies the emission factors for each trip which is provided by the EMFAC2011 model to determine the vehicular traffic pollutant emissions.

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 313,470 square foot warehouse building in the CalEEMod model. Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after January 1, 2014 will be limited to an average of 50 grams per liter or less and the CalEEMod model default VOC emissions have been adjusted accordingly. No other changes were made to the default area source parameters.

Energy Usage

Energy usage includes emissions from the natural gas used on-site. The energy usage emissions were based on the on-going use of the proposed 313,470 square foot warehouse building in the CalEEMod model. No changes were made to the default energy usage parameters.

Project Impacts

The worst-case summer or winter VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table 11. Table 11 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.

2. Cumulative Regional Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

The project area is out of attainment for both ozone and PM₁₀ particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. With respect to long-term emissions, this project would create a less than significant cumulative impact.

B. 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 South Coast 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 analysis analyzes the vehicular CO emissions, local impacts from on-site operations, and odor impacts.

1. Local CO Emission 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 which were presented in above in Section V.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above in Section V, a sensitivity analysis is typically conducted to determine the potential for CO “hot spots” at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, “hot spots” typically occur at high traffic volume intersections with a Level of Service E or worse.

The Traffic Impact Analysis found that with the proposed road improvements, no analyzed intersection would operate at a Level of Service E or worse. Therefore no CO “hot spot” modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

2. Local Air Quality Impacts from On-Site Operations

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site 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 South Coast Air Basin.

The local air quality emissions from on-site operations were analyzed according to the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. 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. The proposed project was analyzed based on the Central San Bernardino Valley source receptor area and a five acre project site.

The nearest sensitive receptors to the project site consist of the Packing House Church and school that is adjacent to the north and west sides 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. Table 12 shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. The vehicle emissions were based on 1/10 of the total vehicle emissions and are based on the portion of the emissions that would be anticipated to occur on-site.

The data provided in Table 12 shows that the on-going operations of the proposed project would not exceed the local NO_x, CO, PM₁₀ and PM_{2.5} thresholds of significance discussed above in Section V. 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. No mitigation would be required.

3. Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from diesel truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

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 sources that may emit odors during the on-going operations of the proposed project would primarily occur from odor emissions from diesel truck emissions and

trash storage areas. Diesel truck emissions odors would be generated intermittently and would not likely be noticeable for extended periods of time beyond the project site boundaries. Trash storage area odors would be required to comply with SCAQMD's Rule 402 that controls odor emissions. Therefore, no significant impact related to odors would be anticipated during the on-going operations of the proposed project and no mitigation measures would be required.

Table 10

CalEEMod Revised Vehicle Mix Parameters

CalEEMod Vehicle Type	Vehicle Mix from Traffic Analysis	CalEEMod Default Mix ¹		CalEEMod Revised Mix ²	
		Ratio	No. of Vehicles	Ratio	No. of Vehicles
Light Auto	Automobile	0.475	250	0.432	227
Light Truck < 3750 lbs	Automobile	0.066	35	0.060	32
Light Truck 3751-5750 lbs	Automobile	0.172	91	0.157	82
Med Truck 5751-8500 lbs	Automobile	0.156	82	0.142	75
Lite-Heavy Truck 8501-10,000 lbs	2-Axle Truck	0.056	29	0.030	16
Lite-Heavy Truck 10,001-14,000 lbs	2-Axle Truck	0.009	5	0.005	3
Med-Heavy Truck 14,001-33,000 lbs	3-Axle Truck	0.016	9	0.046	24
Heavy-Heavy Truck 33,001-60,000 lbs	4+-Axle Truck	0.039	20	0.123	65
Other Bus	--	0.001	1	0.000	0
Urban Bus	--	0.001	1	0.000	0
Motorcycle	Automobile	0.005	3	0.004	2
School Bus	--	0.001	0	0.000	0
Motor Home	--	0.003	2	0.000	0
Total		1.000	526	1.000	526

¹ Source: CalEEMod Version 2013.2.2 default values for Opening year of 2015.

² Revised per the vehicle mix provided in the Traffic Impact Analysis of 79.6% Autos, 3.5% 2-Axle Trucks, 4.6% 3-Axle Trucks and 12.3% 4+ Axle Trucks

Table 11

Operational Criteria Pollutants Regional Air Emissions¹

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Area Sources ²	15.63	0.00	0.06	0.00	0.00	0.00
Energy Usage ³	0.02	0.18	0.15	0.00	0.01	0.01
Mobile Sources ⁴	3.15	19.95	41.56	0.09	5.52	1.69
Total Emissions	18.81	20.13	41.77	0.09	5.53	1.70
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	no	no	no	no	no	no

¹ Source: CalEEMod Version 2013.2.2

² Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

³ Energy usage consists of emissions from generation of electricity and on-site natural gas usage.

⁴ Mobile sources consist of emissions from vehicles and road dust.

Table 12

Local Operational Emissions at the Nearest Receptors¹

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources ²	0.00	0.06	0.00	0.00
Energy Usage ³	0.18	0.15	0.01	0.01
Vehicle Emissions ⁴	2.00	4.16	0.55	0.17
Total Emissions	2.18	4.37	0.57	0.18
SCAQMD Threshold for 25 meters (82 feet) or less⁵	270	1,746	4	2
Exceeds Threshold?	no	no	no	no

¹ Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Central San Bernardino Valley.

² Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

³ Energy usage consists of emissions from on-site natural gas usage.

⁴ On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.

⁵ The nearest sensitive receptors consist of a church and school located adjacent to the project site, however according to LST methodology any receptor located closer than 25 meters should be based on the 25 meter threshold.

VIII. Diesel Emissions Health Risk Assessment

The on-going operation of the proposed project would generate toxic air contaminant emissions from diesel truck emissions created by the on-going operations 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.

A health risk assessment requires the completion and interaction of four general steps:

1. Quantify project-generated TAC emissions.
2. Identify nearby ground-level receptor locations that may be affected by the emissions (including any special sensitive receptor locations such as residences, schools, hospitals, convalescent homes, and daycare centers).
3. Perform air dispersion modeling analyses to estimate ambient pollutant concentrations at each receptor location using project TAC emissions and representative meteorological data to define the transport and dispersion of those emissions in the atmosphere.
4. Characterize and compare the calculated health risks with the applicable health risk significance thresholds.

A. Emission Inventory Development

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.

1. Emission Source Estimates - DPM from Motor Vehicles

DPM emissions from the various sources were calculated using information derived from the project description, and mobile source emission factors from the CARB EMFAC2011 emissions factor model¹. Truck mix information was obtained from the project-specific traffic report (Kunzman 2014).

Four pieces of information are required to generate the mobile source emissions from the proposed project:

- Number of vehicle trips for each component of the proposed project;
- Types of vehicles that access the proposed project (passenger car vs. heavy-duty truck and gasoline vs. diesel);

¹ An emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. These factors are usually expressed as the weight of pollutant divided by a unit of activity, volume, distance, or duration of the activity emitting the pollutant (e.g., grams of pollutant emitted per vehicle-mile traveled or grams of pollutant emitted per brake-horsepower).

- The allocation of the vehicle trips to each building that comprises the proposed project; and
- Estimate of the vehicle emission factors for estimating exhaust and idling emissions.

Estimate of Vehicle Trips and Vehicle Types

The Kunzman Associates, Inc. project-specific traffic study (2014) showed the project is expected to generate approximately 526 vehicle trips per day.

The vehicle mix followed the recommendations of the Fontana Truck Trip Generation Study with a mix of 79.57 percent cars, 3.46 percent 2-axle trucks, 4.64 percent 3-axle trucks and 12.33 percent 4-axle trucks.

Estimate of Emission Factors

The DPM emission factors for the various vehicle types were derived from the CARB EMFAC2011 mobile source emission model. The 70-year average factors were derived for San Bernardino County for year 2015, the buildout year the proposed project. Emissions factors were estimated to establish the emissions generated while the vehicles travel off-site, along travel links from the entrance to the loading docks, and while idling at the loading dock during loading or unloading materials. All vehicles were assumed to travel on-site at a speed of 10 miles per hour. Off-site, the speeds along the roads were anticipated to average 35 miles per hour. Delivery vehicles were assumed to idle for a maximum of 15 minutes per vehicle per day (5 minutes per location: at the facility entrance, at the loading bay, and at the facility exit, in keeping with the CARB Air Toxic Control Measure (ATCM), which regulates truck idling time (CARB 2005). Table 13 provides the emission factors used in this assessment. It should be noted that the DPM emissions on both the gram per mile and gram per idle hour bases decline beyond 2013 for all vehicle classes and in particular the heavy-heavy-duty truck class (the 4+ axle “big rig” trucks). This is due to the CARB emissions’ requirements on heavy-duty trucks that call for either the replacement of older trucks with cleaner trucks or the installation of diesel particulate matter filters on the truck fleet.

Emission Source Characterization

Each of the emission source types described above also requires geometrical and emission release specifications for use in the air dispersion model. Table 14 provides a summary of the assumptions used to configure the various emission sources. The following definitions are used to characterize the emission source geometrical configurations referred to in Table 14:

Point source: A single, identifiable, local source of emissions; it is approximated in the AERMOD air dispersion model as a mathematical point in the modeling region with a location and emission characteristics such as height of release, temperature, etc., for example, a truck idle location.

Line source: A series of volume sources along a path, for example, vehicular traffic along a roadway.

Figure 3 provides the location of the project buildings, emission source locations, and the locations of the adjacent sensitive receptors (located the Packing House Church and school that is adjacent to the north and west sides of the project site).

B. Receptor Network

The assessment requires that a network of receptors be specified where the impacts can be computed at the various locations surrounding the project. Receptors were located at existing residences surrounding the proposed project (as detailed above). In addition, the identified sensitive receptors locations were supplemented by the specification of a modeling grid that extended around the proposed project to identify other potential locations of impact. The locations of the receptors are shown as red triangles on Figure 3.

C. Dispersion Modeling

The next step in the assessment process utilizes the emissions inventory along with a mathematical air dispersion model and representative meteorological data to calculate impacts at the various receptor locations. The dispersion model used in this assessment is described below.

1. Model Selection

The assessment of air quality and health risk impacts from pollutant emissions from this project applied the USEPA AERMOD Model, which is the air dispersion model accepted by the SCAQMD for performing air quality impact analyses. AERMOD predicts pollutant concentrations from point, area, volume, line, and flare sources with variable emissions in terrain from flat to complex with the inclusion of building downwash effects from buildings on pollutant dispersion. It captures the essential atmospheric physical processes and provides reasonable estimates over a wide range of meteorological conditions and modeling scenarios.

2. General Model Assumptions

The basic options used in the dispersion modeling are summarized in Table 15.

As indicated in Table 15, the analysis takes into account the effects of building downwash on the dispersion of emissions from the various sources located on the project's property. Building downwash occurs when the aerodynamic turbulence, induced by nearby buildings, causes pollutants emitted from an elevated source to be mixed rapidly toward the ground (downwash), resulting in potentially higher ground-level concentrations than if the buildings were not present. The AERMOD dispersion model contains algorithms to account for building downwash effects. The required information includes the location of the emission source; the location of adjacent buildings; and the building geometry in terms of length, width, and height. For purposes of this analysis, the emission source and building locations were taken from the project site plan. The building geometries were derived from the project plan, assuming a building height of 40 feet for the building.

3. Meteorological Data

Meteorological data from the Air District's San Bernardino monitoring site was selected for this modeling application. Five full years of sequential meteorological data was collected at the site from January 1, 2005 to December 31, 2009 by the SCAQMD. The SCAQMD processed the data for input to the model. The data was obtained at SCAQMD's <http://www.aqmd.gov/smog/metdata/AERMOD.html> (Figure 4 shows a Wind Rose for Redlands as the project is located in the donut-hole of San Bernardino County and is surrounded by the City of Redlands).

D. Estimation of Health Risks

Health risks from diesel particulate matter are twofold. First, diesel particulate matter is a carcinogen according to the State of California. Second, long-term chronic exposure to diesel particulate matter can cause health effects to the respiratory system. Each of these health risks is discussed below.

1. Cancer Risks

According to the in Health Risk Assessment for Proposed Land Use Projects, prepared by CAPCOA, July 2009, the cancer risk should be calculated using the following formula:

$$[\text{Dose-inh (mg)/(Kg-day)}] * [\text{Oral Slope Factor (kg-day)/mg}] * [1 \times 10^6] = \text{Potential Cancer Risk}$$

Where:

Oral Slope Factor = 1.1

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

Where:

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

DBR [Daily breathing rate (L/kg body weight – day)] = 302 for residential, 149 for off-site worker

A [Inhalation absorption factor] = 1

EF [Exposure frequency (days/year)] = 350

ED [Exposure duration (years)] = 70

10^6 [Micrograms to milligrams conversion]

AT [Average time period over which exposure is averaged in days] = 25,550

According to the OEHHA formula the residential receptors equates to $C_{\text{air}} * 318.91 = \text{Potential Cancer Risk}$. The Year 2015 model run results are shown below on Figure 5 and Appendix C. Table 16 provides a summary of the calculated diesel emission concentrations at the nearest sensitive receptors. Table 16 shows that the point of maximum impact (PMI) of off-site DPM emissions would occur east of the site along San Bernardino Avenue, with concentrations of $0.01335 \mu\text{g per m}^3$. The project diesel emissions at the PMI would result in a cancer risk increase of 0.8 per million people, however there are no sensitive receptors located in the proximity of the PMI. Sensitive Receptor 1, which is located adjacent to the northern project boundary line would

experience the highest level of project-related diesel emissions that would result in a cancer risk increase of 1.1 per million people. All off-site diesel emissions concentrations were found to be below the 10.0 in a million cancer risk threshold that has been discussed above in Section 2.0. Therefore, no significant long-term health impacts would occur from the operation of diesel trucks on the project site.

2. Non-Cancer Risks

The relationship for non-cancer health effects is given by the equation:

$$\text{HIDPM} = \text{CDPM}/\text{RELDPM}$$

Where,

HIDPM= Hazard Index; an expression of the potential for non-cancer health effects.

CDPM = Annual average diesel particulate matter concentration in $\mu\text{g}/\text{m}^3$.

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

The RELDPM is 5 $\mu\text{g}/\text{m}^3$. The Office of Environmental Health Hazard Assessment as protective for the respiratory system has established this concentration. The resulting Hazard Index is

$$\text{HIDPM} = 0.01335/5 = 0.00267$$

The criterion for significance is a Hazard Index increase of 1.0 or greater. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer risk from diesel emissions created by the proposed project.

E. Cumulative Health Risks

The Chiming Inc. Industrial project is currently being processed through the County that is located adjacent to the west side of the proposed project. Both the Chiming Inc. Industrial project and the proposed project are adjacent to the Packinghouse Church and school property and the cumulative impacts from both projects operational diesel particulate emissions may result in a significant cumulative cancer risk from toxic air contaminants at the Packinghouse Church and school and other nearby sensitive receptors.

In order to determine the cumulative diesel particulate emissions impacts from both the proposed project and the Chiming Inc. Industrial project, the annual diesel particulate concentrations from the proposed project (shown in Table 17) were added to the diesel particulate concentrations for the same receptors that were calculated in Chiming Inc.- Industrial Project Air Quality, Global Climate Change, and Health Risk Assessment Impact Analysis, prepared by Kunzman Associates, Inc., June, 2013, and the results are shown in Table 17.

Table 17 shows that cumulative cancer risks from both the proposed project and the Chiming Inc. Industrial project would result in a maximum concentration of 0.0060 μg per m^3 at the Packinghouse School and would result in a cancer risk of 1.9 per million people for the students, faculty, and staff. The only nearby proposed residential uses, represented by Sensitive Receptor 5, would receive a cumulative concentration of diesel emissions of 0.0028 μg per m^3 , which would result in a cancer risk of 0.9 per million people. All off-site diesel emissions concentrations were found to be below the 10.0 in a million cancer risk threshold that has been discussed above in Section 2.0. Therefore, no significant long-term health impacts would occur from the cumulative operational diesel emissions from the proposed project and the Chiming Inc. Industrial project.

Table 13

2015 DPM Emissions Factors for the Proposed Project (70-year average)¹

Vehicle Class	Idling (g/hr)	On-site Travel (g/mi)	Off-site Travel (g/mi)
Light Heavy Duty Truck 2	0.107	0.0532	0.0209
Medium Heavy Duty Truck	0.103	0.0456	0.0324
Heavy Heavy Duty Truck	0.113	0.0791	0.0607

¹ Source: EMFAC2011

Table 14

Summary of Emissions Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Off-site Diesel Truck Traffic	Line Sources	· Stack release height: 12 feet
		· Vehicle speed: 35 mph
		· Length of the line source (along Almond Ave, San Bernardino Ave, Alabama St and Nevada St)
		· Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		· Emission factor: CARB EMFAC2011
On-site Diesel Truck Traffic	Line Sources	· Stack release height: 12 feet
		· Vehicle speed: 10 mph
		· Length of the line source (distance from the facility entrance to the loading docks)
		· Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		· Emission factor: CARB EMFAC2011
On-site Diesel Truck Idling	Point Sources located at the loading docks for each building	· Stack release height: 12 feet
		· Stack release characteristics
		> Stack diameter: 0.1 meter (0.3 feet)
		> Stack velocity: 51.9 mps (170 feet/sec)
		> Stack temperature: 366 °k (200° F)
		· Idle time: 15 minutes per truck per day
		· Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		· Emission factor: CARB EMFAC2011

Table 15

General Modeling Assumptions - AERMOD Model

Feature	Option Selected
Terrain processing	AERMAP
Emission source configuration	See Table 14
Regulatory dispersion options	Default
Land use	Urban
Coordinate system	UTM
Building downwash	Included in calculations
Receptor height	0 meters above ground
Meteorological data	SCAQMD San Bernardino Meteorological Data

Table 16

Diesel Particulate Emission Levels and Cancer Risks at Nearby Sensitive Receptors¹

Sensitive Receptor No.	Land Use	Annual Concentration	Cancer Risk Per Million People ²	Significant Impact
1	School	0.0034	1.1	no
2	Off-Site Worker	0.0005	0.0	no
3	Off-Site Worker	0.0047	0.3	no
4	Residential	0.0007	0.2	no
5	Off-Site Worker	0.0024	0.2	no
6	Park	0.0012	0.4	no
7	Church	0.0016	0.5	no
8	Off-Site Worker	0.0013	0.1	no
PMI ³	Roadway	0.0134	0.8	no

¹ Source: Calculated from ISC-AERMOD View

² PMI, off-site worker, = 62.9 X Cair;, school cancer risk and an off-site park/church cancer risk based on a residential receptor cancer risk = 318.91 x Cair .

³ PMI = Point of Maximum Impact, based on commercial risk factors.

Table 17**Cumulative Diesel Particulate Emission Levels and Cancer Risks at Nearby Receptors¹**

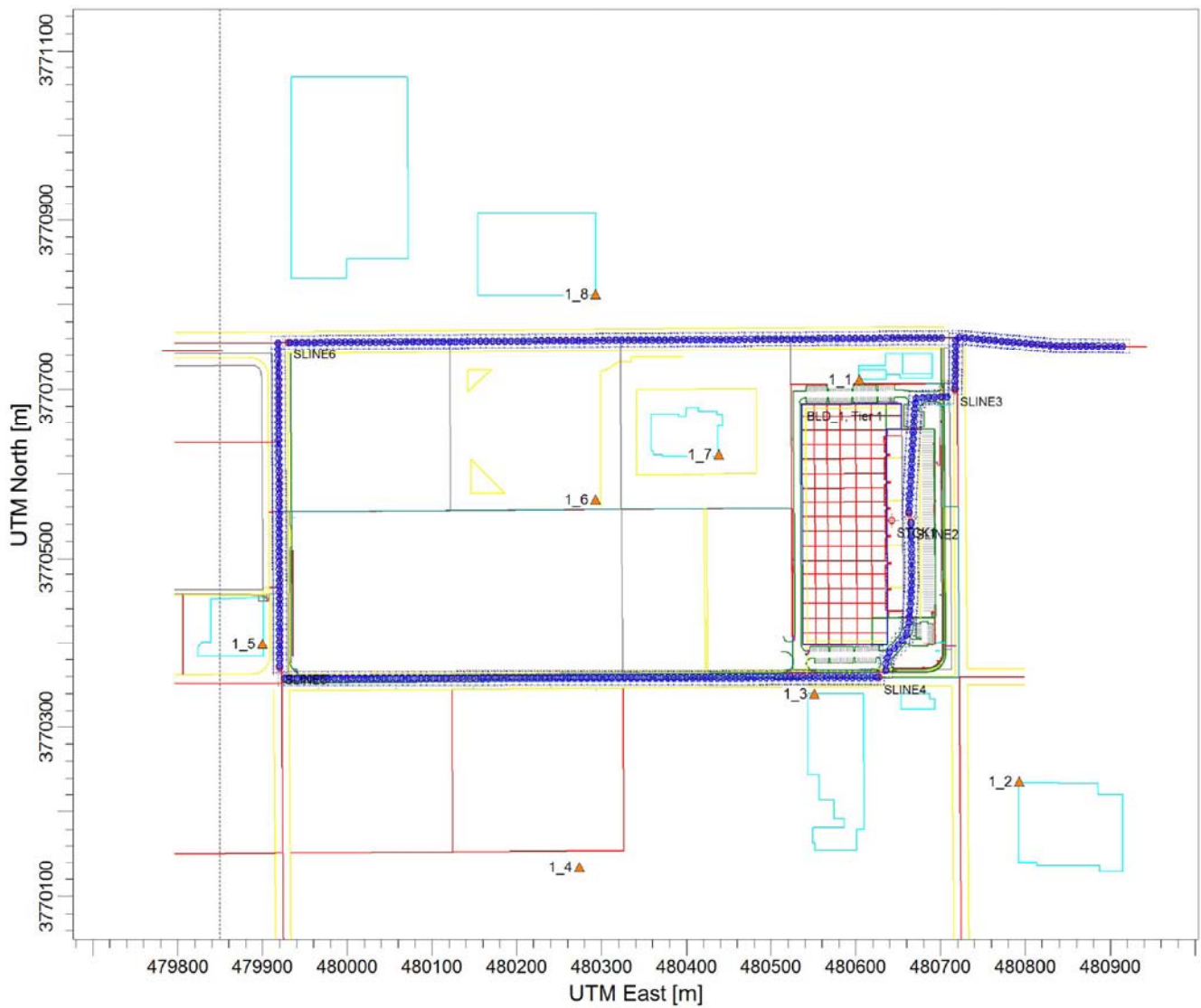
Sensitive Receptor No.	Land Use	Annual Concentration ($\mu\text{g}/\text{m}^3$)	Cancer Risk Per Million People ²
1	School	0.0060	1.9
2	Off-Site Worker	0.0046	0.3
3	Off-Site Worker	0.0065	0.4
4	Residential	0.0028	0.9
5	Off-Site Worker	0.0039	0.2
6	Park	0.0065	2.1
7	Church	0.0027	0.9
8	Off-Site Worker	0.0033	0.2
PMI ³	Roadway	0.0187	1.2
Threshold of Significance			10

¹ Source: Calculated from ISC-AERMOD View Version 8.2.0 and Chiming Inc.-Industrial Project Air Quality, Global Climate Change, and Health Risk Assessment Impact Analysis, June, 2014.

² PMI, off-site worker, = $62.9 \times \text{Cair}$; school cancer risk and an off-site park/church cancer risk based on a residential receptor cancer risk = $318.91 \times \text{Cair}$.

³ PMI = Point of Maximum Impact

Figure 3
 AERMOD Model Source and Receptor Placement



Legend




-  = Line of Truck Travel
-  = Truck Idling Point
-  = Receptor Location



Figure 4
Wind Rose: Redlands

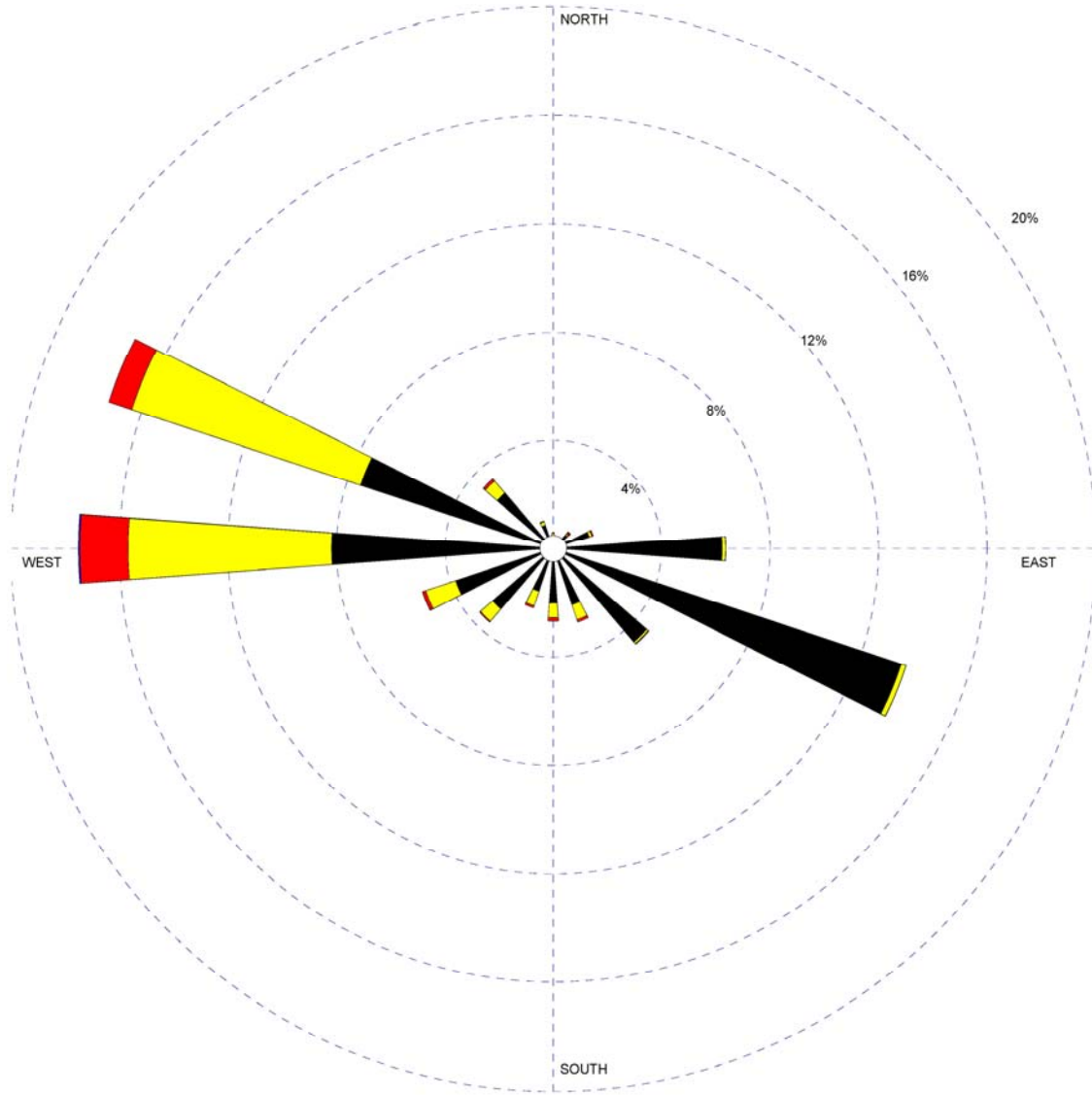
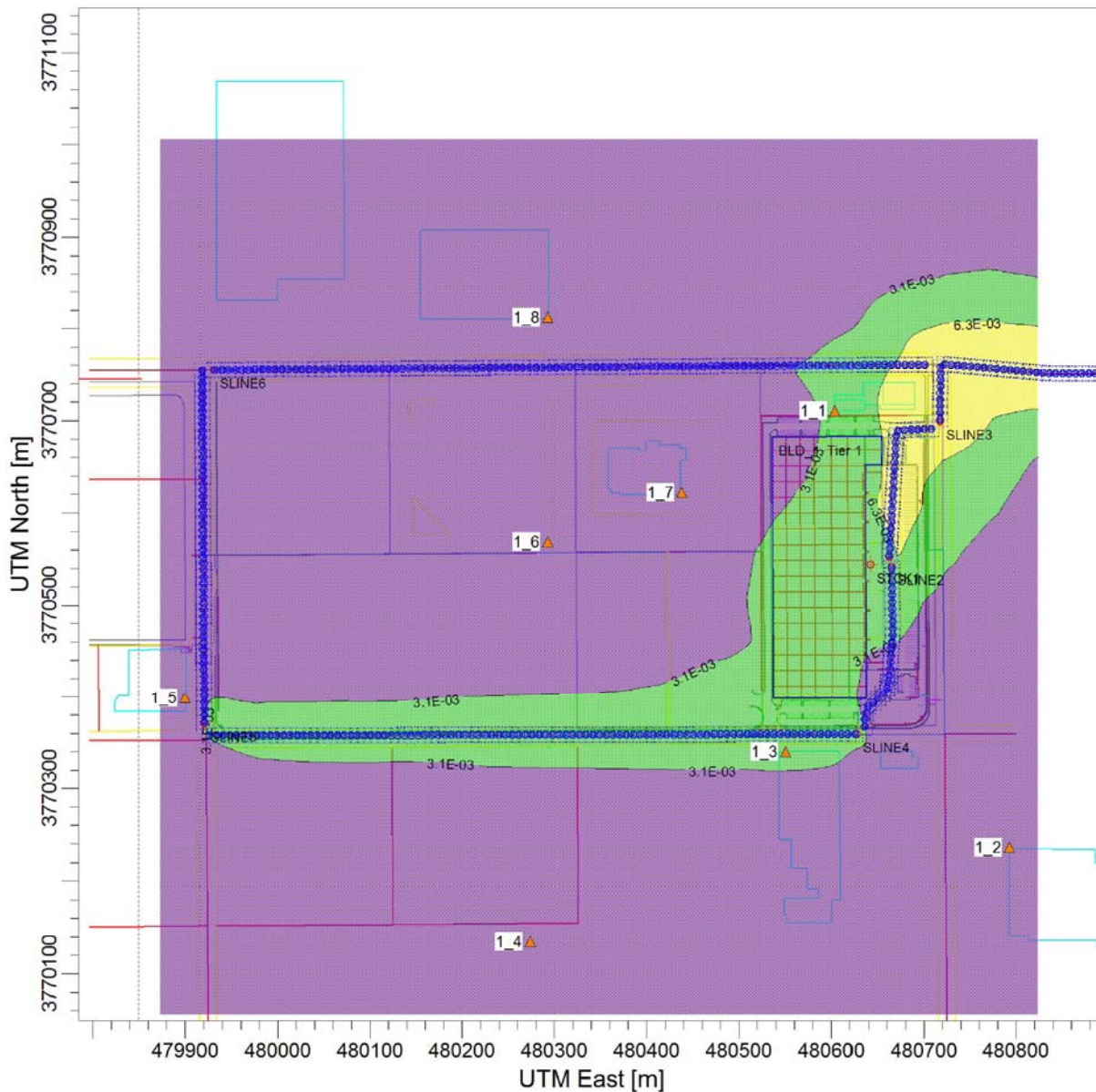


Figure 5
Modeled Study Area DPM Emissions



Cancer Risk

- = 5 in One Million
- = 2 in One Million
- = 1 in One Million
- = 0.5 in One Million



IX. Global Climate Change Analysis

The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The following provides the methodology used to calculate the project-related GHG emissions, the project impacts and a consistency analysis of the proposed project with any applicable GHG reduction plans, policies or regulations.

A. Methodology

The CalEEMod Version 2013.2.2 was used to calculate the GHG emissions from the proposed project. Each source of GHG emissions is described in greater detail below.

1. Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. No changes were made to the default area source emissions.

2. Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. The energy usage was based on the CalEEMod default emissions for 313,470 square feet of warehouse uses. No changes were made to the default energy usage parameters.

3. Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been based on the Traffic Analysis of 419 automobile round trips, 18 2-axle truck round trips, 24 3-axle truck round trips, and 65 4+-axle truck round trips per day. The weekday, Saturday and Sunday trip rates for the warehouse land use in the CalEEMod was set to 1.68 trips per 1,000 square feet of building space in order to be consistent with the Traffic Analysis. The vehicle mix in the CalEEMod model was adjusted based on the vehicle mix provided in the Traffic Impact Analysis and the resultant vehicle mix is shown in Table 10. For vehicle types such as automobiles that would fit in multiple categories in the CalEEMod model, the same ratio that was provided in the default values were maintained for the with project values.

Due to the proposed project's location and proposed warehouse land use, the average customer based trip length was increased to 40 miles, while the other trip lengths were based on the default values. The CalEEMod model applies the emission factors for each trip which is provided by the EMFAC2011 model to determine the vehicular traffic pollutant emissions.

4. Waste

Waste includes the GHG emissions generated from 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 CalEEMod default value for waste generated from 313,470 square feet of warehouse uses was utilized in the analysis.

5. Water

Water includes the water used for the interior of the building as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. The CalEEMod default values were used in the analysis.

6. Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30 year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction-related GHG emissions were calculated by CalEEMod and detailed above in Section VI.

B. Project Greenhouse Gas Emissions

The GHG emissions have been calculated based on the parameters described above. A summary of the results are shown below in Table 18 and the CalEEMod Model run for the proposed project is provided in Appendix C. Table 18 shows that the proposed project would generate 2,245.50 MTCO₂e per year. According to the thresholds of significance established above in Section 5.0, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 metric tons per year of CO₂e. Therefore, operation of the proposed project would not create a significant cumulative impact to global climate change.

C. Greenhouse Gas Plan Consistency

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

On December 6, 2011, the County adopted a Greenhouse Gas Emissions Reduction Plan (GHG Plan). In addition, the Greenhouse Gas Emissions Development Review Processes (GHG Review Processes), prepared for the County of San Bernardino, August 2011, provides direction for conformity of new development projects to the GHG Plan. The GHG Review Processes determined that projects that do not exceed 3,000 MTCO₂e 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 MTCO₂e per year of GHG emissions, which includes the proposed project, the GHG Review Processes has determined that implementation of 100 or greater points associated with mitigation measures listed on its Screening 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. Since the proposed project's emissions do not exceed 3,000 MTCO₂e per year, the project is considered to be consistent with the GHG Plan. 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.

Table 18

Project-Related Greenhouse Gas Emissions¹

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO ₂	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Area Sources ²	0.00	0.01	0.01	0.00	0.00	0.01
Energy Usage ³	0.00	330.68	330.68	0.01	0.00	332.05
Mobile Sources ⁴	0.00	1,388.45	1,388.45	0.04	0.00	1,389.37
Solid Waste ⁵	59.81	0.00	59.81	3.53	0.00	134.05
Water ⁶	23.00	270.12	293.11	2.37	0.06	361.06
Construction ⁷	0.00	37.86	37.86	0.00	0.00	37.96
Total Emissions	82.81	2,027.11	2,109.92	5.97	0.06	2,254.50
Threshold						3,000
Exceeds Screening Threshold?						No

¹ Source: CalEEMod Version 2013.2.2

² Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.

³ Energy usage consist of GHG emissions from electricity and natural gas usage.

⁴ Mobile sources consist of GHG emissions from vehicles.

⁵ Solid waste includes the CO₂ and CH₄ 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 GHG emissions based on a 30 year amortization rate.

X. Air Quality Compliance

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 Air Quality Management Plan (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 General Plan 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 in 2012 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that long-term operations impacts will not result in significant impacts based on the SCAQMD local, regional, and toxic air contaminant thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

B. 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

insure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2012-2035 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2012, consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the County Land Use Plan defines the assumptions that are represented in the AQMP.

The project site is currently designated as “IR” (Regional Industrial) in the General Plan. The proposed warehousing development on the project site would be consistent with the current General Plan land use designation. Therefore, the proposed project would not result in an inconsistency with the current land use designation in the County’s General Plan. Therefore, 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.

XI. Mitigation Measures

A. Construction Measures

Mitigation Measure 1. The project applicant shall require that the site preparation and grading contractors limit the daily disturbed area to 5 acres or less.

Mitigation Measure 2. The project applicant shall require that during site preparation, and grading operations all contractors shall comply with all applicable measures listed in SCAQMD Rule 403 to control fugitive dust including the application of water to all exposed surfaces a minimum of three times per day.

Mitigation Measure 3. The project applicant shall coordinate the site preparation and grading activities timing with the Chiming Inc. Industrial project, located adjacent to the west side of the project site, in order to ensure that there are no days where earth moving activities occur concurrently for both projects.

B. Operational Measures

None required.

XII. References

California Air Pollution Control Officers Association

2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board

2008 Resolution 08-43

2008 Airborne Toxic Control Measure for in-use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, Section 2477 of Division 3, Chapter 9, Title 13, California Code of Regulations

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document

2014 Historical Air Quality, Top 4 Summary

County of San Bernardino

2007 County of San Bernardino 2007 General Plan

2011 County of San Bernardino General Plan Amendment and Greenhouse Reduction Plan Draft Supplemental Program Environmental Impact Report

2011 Greenhouse Gas Emissions Development Review Processes

Governor's Office of Planning and Research

2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2009 CEQA Guideline Sections to be Added or Amended

Kunzman Associates, Inc.

2014 Alabama Venture 1 Project Traffic Impact Analysis

2014 Chiming Inc.-Industrial Project Air Quality, Global Climate Change, and Health Risk Assessment Impact Analysis

Office of Environmental Health Hazard Assessment

2003 Air Toxics Hot Spots Program Risk Assessment Guidelines

Natelson Company, Inc.

2001 Employment Density Study Summary Report

South Coast Air Quality Management District

1993 CEQA Air Quality Handbook

2003 Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis

2007 2007 Air Quality Management Plan

2008 Final Localized Significance Threshold Methodology, Revised

2008 Draft Report Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III

2011 Appendix A Calculation Details for CalEEMod

2012 2012 Air Quality Management Plan

Southern California Association of Governments

2012 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy

U.S. Geological Survey

2011 Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California

Appendices

Appendix A – Glossary of Terms

Appendix B – CalEEMod Model Daily Emissions Printouts

Appendix C – AERMOD Model Printouts

Appendix D – CalEEMod Model Annual Emissions Printouts

APPENDIX A

Glossary of Terms

AQMP	Air Quality Management Plan
BACT	Best Available Control Technologies
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HIDPM	Hazard Index Diesel Particulate Matter
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
MTCO ₂ e	Metric tons of carbon dioxide equivalent
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
O ₃	Ozone
OPR	Governor's Office of Planning and Research
PFCs	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
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

SF	Square Feet
SF ₆	Sulfur hexafluoride
SIP	State Implementation Plan
SO _x	Sulfur Oxides
T6	Heavy Duty Trucks from EMFAC 2007 classifications
T7	Heavy-Heavy Duty Trucks from EMFAC 2007 classifications
TAC	Toxic air contaminants
VOC	Volatile organic compounds

APPENDIX B

CalEEMod Model Daily Emissions Printouts

**Alabama Venture 1, 5416 warehouse
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	313.47	1000sqft	7.20	313,470.00	0
Parking Lot	238.00	Space	2.14	95,200.00	0
Other Non-Asphalt Surfaces	5.47	Acre	5.47	238,273.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 313,470 1000 sq ft of warehouse on 14.81 238 space parking lot and 4.73 acres of other non-asphalt surfaces.

Construction Phase - Project schedule provided by applicant

Trips and VMT - 6 vendor trucks per day added to the Site Preparation and Grading phases to account for water truck emissions

Architectural Coating - Per SCAQMD Rule 1113, architectural coatings that are applied after January 1, 2014 will be limited to 50 grams of VOC per liter

Vehicle Trips - Trip Rate set to 1.68 per 1000 sq ft to match TIA. C-W Trip length extended to 40 miles and percentage adjusted to 20

Vehicle Emission Factors - Vehicle mix revised to match TIA

Vehicle Emission Factors - Vehicle mix revised to match TIA

Vehicle Emission Factors - Vehicle mix revised to match TIA

Water And Wastewater - Indoor water use 10,518,697 gallons per year. Outdoor water use 3,576,357 gallons per year

Construction Off-road Equipment Mitigation - Water exposed areas a minimum of 3 times per day

Grading - Site is 14.81 acres

Area Coating - SCAQMD Rule 1113 50g/L VOC

Sequestration - ~1 tree per 3 parking spaces = 238 spaces / 3 spaces = 80 trees

Mobile Land Use Mitigation - 1.9 miles to downtown Redlands. Warehouse will create an average of 15 jobs per acre. Sidewalks adjacent to site and connecting off-site.

Mobile Commute Mitigation - 80% of project traffic is light vehicle, all those vehicles are eligible for ride share and van pool

Area Mitigation - SCAQMD Rule 1113

Energy Mitigation - 2013 Title 24 is 30% more efficient than 2008 Title 24

Water Mitigation - Green Building standards

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
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tblConstructionPhase	NumDays	300.00	262.00
tblConstructionPhase	NumDays	20.00	52.00

tblConstructionPhase	PhaseEndDate	10/23/2015	10/25/2015
tblGrading	AcresOfGrading	75.00	14.81
tblProjectCharacteristics	OperationalYear	2014	2015
tblSequestration	NumberOfNewTrees	0.00	80.00
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT2	0.17	0.16
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tblVehicleEF	MDV	0.16	0.14

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tblVehicleTrips	SU_TR	2.59	1.68
tblVehicleTrips	WD_TR	2.59	1.68

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.6324	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Energy	0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369
Mobile	3.1532	19.1814	41.5639	0.0941	5.1993	0.3192	5.5185	1.3944	0.2935	1.6879		8,778.4015	8,778.4015	0.2641		8,783.9468
Total	18.8054	19.3621	41.7741	0.0952	5.1993	0.3331	5.5324	1.3944	0.3074	1.7018		8,994.7444	8,994.7444	0.2686	3.9600e-003	9,001.6130

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	13.5196	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Energy	0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907
Mobile	2.7372	14.0314	32.5601	0.0664	3.6299	0.2252	3.8550	0.9735	0.2070	1.1805		6,191.5489	6,191.5489	0.1901		6,195.5416
Total	16.2708	14.1589	32.7255	0.0672	3.6299	0.2350	3.8649	0.9735	0.2169	1.1903		6,343.9348	6,343.9348	0.1934	2.7900e-003	6,348.8616

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	13.48	26.87	21.66	29.44	30.19	29.45	30.14	30.19	29.46	30.05	0.00	29.47	29.47	27.98	29.55	29.47

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2014	8/11/2014	5	30	
2	Building Construction	Building Construction	8/12/2014	8/12/2015	5	262	
3	Paving	Paving	8/13/2015	10/25/2015	5	52	
4	Architectural Coating	Architectural Coating	10/26/2015	12/31/2015	5	49	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.81

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 831,899; Non-Residential Outdoor: 277,300 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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	125	0.42
Paving	Paving Equipment	2	8.00	130	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
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	272.00	106.00	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	54.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5456	0.0000	6.5456	3.3668	0.0000	3.3668			0.0000			0.0000
Off-Road	6.8480	80.7211	51.5831	0.0618		3.8792	3.8792		3.5689	3.5689		6,554.8337	6,554.8337	1.9370		6,595.5113
Total	6.8480	80.7211	51.5831	0.0618	6.5456	3.8792	10.4248	3.3668	3.5689	6.9356		6,554.8337	6,554.8337	1.9370		6,595.5113

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1077	0.1310	1.7040	2.8000e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		249.5236	249.5236	0.0139		249.8146
Total	0.1077	0.1310	1.7040	2.8000e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		249.5236	249.5236	0.0139		249.8146

3.2 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					2.5528	0.0000	2.5528	1.3130	0.0000	1.3130			0.0000				0.0000
Off-Road	6.8480	80.7211	51.5831	0.0618		3.8792	3.8792		3.5689	3.5689	0.0000	6,554.8337	6,554.8337	1.9370			6,595.5113
Total	6.8480	80.7211	51.5831	0.0618	2.5528	3.8792	6.4320	1.3130	3.5689	4.8819	0.0000	6,554.8337	6,554.8337	1.9370			6,595.5113

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1077	0.1310	1.7040	2.8000e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		249.5236	249.5236	0.0139			249.8146
Total	0.1077	0.1310	1.7040	2.8000e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		249.5236	249.5236	0.0139			249.8146

3.3 Building Construction - 2014**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	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973		2,709.1969	2,709.1969	0.6889		2,723.6630
Total	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973		2,709.1969	2,709.1969	0.6889		2,723.6630

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1990	11.9761	12.9074	0.0230	0.6660	0.2403	0.9063	0.1901	0.2209	0.4111		2,351.0490	2,351.0490	0.0204		2,351.4782
Worker	1.4648	1.7816	23.1737	0.0381	3.0403	0.0253	3.0656	0.8063	0.0230	0.8293		3,393.5210	3,393.5210	0.1884		3,397.4780
Total	2.6638	13.7577	36.0811	0.0611	3.7063	0.2656	3.9718	0.9965	0.2440	1.2404		5,744.5700	5,744.5700	0.2089		5,748.9561

3.3 Building Construction - 2014

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	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973	0.0000	2,709.1969	2,709.1969	0.6889		2,723.6630
Total	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973	0.0000	2,709.1969	2,709.1969	0.6889		2,723.6630

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1990	11.9761	12.9074	0.0230	0.6660	0.2403	0.9063	0.1901	0.2209	0.4111		2,351.0490	2,351.0490	0.0204		2,351.4782
Worker	1.4648	1.7816	23.1737	0.0381	3.0403	0.0253	3.0656	0.8063	0.0230	0.8293		3,393.5210	3,393.5210	0.1884		3,397.4780
Total	2.6638	13.7577	36.0811	0.0611	3.7063	0.2656	3.9718	0.9965	0.2440	1.2404		5,744.5700	5,744.5700	0.2089		5,748.9561

3.3 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.577 1	2,689.577 1	0.6748		2,703.748 3
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.577 1	2,689.577 1	0.6748		2,703.748 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0240	10.4887	11.4666	0.0231	0.6659	0.1841	0.8500	0.1901	0.1693	0.3594		2,337.923 2	2,337.923 2	0.0184		2,338.310 4
Worker	1.3088	1.5878	20.8371	0.0382	3.0403	0.0238	3.0641	0.8063	0.0218	0.8281		3,294.608 4	3,294.608 4	0.1727		3,298.235 0
Total	2.3328	12.0765	32.3038	0.0613	3.7062	0.2079	3.9141	0.9964	0.1910	1.1875		5,632.531 7	5,632.531 7	0.1911		5,636.545 4

3.3 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.577 1	2,689.577 1	0.6748		2,703.748 3
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.577 1	2,689.577 1	0.6748		2,703.748 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0240	10.4887	11.4666	0.0231	0.6659	0.1841	0.8500	0.1901	0.1693	0.3594		2,337.923 2	2,337.923 2	0.0184		2,338.310 4
Worker	1.3088	1.5878	20.8371	0.0382	3.0403	0.0238	3.0641	0.8063	0.0218	0.8281		3,294.608 4	3,294.608 4	0.1727		3,298.235 0
Total	2.3328	12.0765	32.3038	0.0613	3.7062	0.2079	3.9141	0.9964	0.1910	1.1875		5,632.531 7	5,632.531 7	0.1911		5,636.545 4

3.4 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.898 4	2,339.898 4	0.6986		2,354.568 1
Paving	0.1078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4250	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.898 4	2,339.898 4	0.6986		2,354.568 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0722	0.0876	1.1491	2.1100e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		181.6880	181.6880	9.5200e-003		181.8880
Total	0.0722	0.0876	1.1491	2.1100e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		181.6880	181.6880	9.5200e-003		181.8880

3.4 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016	0.0000	2,339.898 4	2,339.898 4	0.6986		2,354.568 1
Paving	0.1078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4250	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016	0.0000	2,339.898 4	2,339.898 4	0.6986		2,354.568 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0722	0.0876	1.1491	2.1100e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		181.6880	181.6880	9.5200e-003		181.8880
Total	0.0722	0.0876	1.1491	2.1100e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		181.6880	181.6880	9.5200e-003		181.8880

3.5 Architectural Coating - 2015**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	52.4606					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	52.8672	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2598	0.3152	4.1368	7.5900e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		654.0767	654.0767	0.0343		654.7967
Total	0.2598	0.3152	4.1368	7.5900e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		654.0767	654.0767	0.0343		654.7967

3.5 Architectural Coating - 2015

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	52.4606					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	52.8672	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2598	0.3152	4.1368	7.5900e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		654.0767	654.0767	0.0343		654.7967
Total	0.2598	0.3152	4.1368	7.5900e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		654.0767	654.0767	0.0343		654.7967

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network
- Employee Vanpool/Shuttle
- Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.7372	14.0314	32.5601	0.0664	3.6299	0.2252	3.8550	0.9735	0.2070	1.1805		6,191.5489	6,191.5489	0.1901		6,195.5416
Unmitigated	3.1532	19.1814	41.5639	0.0941	5.1993	0.3192	5.5185	1.3944	0.2935	1.6879		8,778.4015	8,778.4015	0.2641		8,783.9468

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	526.63	526.63	526.63	2,417,328	1,687,644
Parking Lot	0.00	0.00	0.00		
Total	526.63	526.63	526.63	2,417,328	1,687,644

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	40.00	8.40	6.90	20.00	0.00	80.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.432000	0.060000	0.157000	0.142000	0.030000	0.005000	0.046000	0.123000	0.000000	0.000000	0.004000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907
NaturalGas Unmitigated	0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369

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					
Unrefrigerated Warehouse-No Fuel	1837.88	0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369

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					
Unrefrigerated Warehouse-No Fuel	1.29424	0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	13.5196	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Unmitigated	15.6324	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293

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	2.8171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.8095					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.8100e-003	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Total	15.6324	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293

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	0.7043					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	12.8095					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	5.8100e-003	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004			0.1293
Total	13.5196	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004			0.1293

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

**Alabama Venture 1, 5416 warehouse
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	313.47	1000sqft	7.20	313,470.00	0
Parking Lot	238.00	Space	2.14	95,200.00	0
Other Non-Asphalt Surfaces	5.47	Acre	5.47	238,273.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 313,470 1000 sq ft of warehouse on 14.81 238 space parking lot and 4.73 acres of other non-asphalt surfaces.

Construction Phase - Project schedule provided by applicant

Trips and VMT - 6 vendor trucks per day added to the Site Preparation and Grading phases to account for water truck emissions

Architectural Coating - Per SCAQMD Rule 1113, architectural coatings that are applied after January 1, 2014 will be limited to 50 grams of VOC per liter

Vehicle Trips - Trip Rate set to 1.68 per 1000 sq ft to match TIA. C-W Trip length extended to 40 miles and percentage adjusted to 20

Vehicle Emission Factors - Vehicle mix revised to match TIA

Vehicle Emission Factors - Vehicle mix revised to match TIA

Vehicle Emission Factors - Vehicle mix revised to match TIA

Water And Wastewater - Indoor water use 10,518,697 gallons per year. Outdoor water use 3,576,357 gallons per year

Construction Off-road Equipment Mitigation - Water exposed areas a minimum of 3 times per day

Grading - Site is 14.81 acres

Area Coating - SCAQMD Rule 1113 50g/L VOC

Sequestration - ~1 tree per 3 parking spaces = 238 spaces / 3 spaces = 80 trees

Mobile Land Use Mitigation - 1.9 miles to downtown Redlands. Warehouse will create an average of 15 jobs per acre. Sidewalks adjacent to site and connecting off-site.

Mobile Commute Mitigation - 80% of project traffic is light vehicle, all those vehicles are eligible for ride share and van pool

Area Mitigation - SCAQMD Rule 1113

Energy Mitigation - 2013 Title 24 is 30% more efficient than 2008 Title 24

Water Mitigation - Green Building standards

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstructionPhase	NumDays	20.00	49.00
tblConstructionPhase	NumDays	300.00	262.00
tblConstructionPhase	NumDays	20.00	52.00

tblConstructionPhase	PhaseEndDate	10/23/2015	10/25/2015
tblGrading	AcresOfGrading	75.00	14.81
tblProjectCharacteristics	OperationalYear	2014	2015
tblSequestration	NumberOfNewTrees	0.00	80.00
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD2	9.1200e-003	5.0000e-003
tblVehicleEF	LHD2	9.1200e-003	5.0000e-003
tblVehicleEF	LHD2	9.1200e-003	5.0000e-003
tblVehicleEF	MCY	4.8710e-003	4.0000e-003
tblVehicleEF	MCY	4.8710e-003	4.0000e-003
tblVehicleEF	MCY	4.8710e-003	4.0000e-003
tblVehicleEF	MDV	0.16	0.14
tblVehicleEF	MDV	0.16	0.14
tblVehicleEF	MDV	0.16	0.14

tblVehicleEF	MH	2.9140e-003	0.00
tblVehicleEF	MH	2.9140e-003	0.00
tblVehicleEF	MH	2.9140e-003	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	OBUS	1.1190e-003	0.00
tblVehicleEF	OBUS	1.1190e-003	0.00
tblVehicleEF	OBUS	1.1190e-003	0.00
tblVehicleEF	SBUS	7.2300e-004	0.00
tblVehicleEF	SBUS	7.2300e-004	0.00
tblVehicleEF	SBUS	7.2300e-004	0.00
tblVehicleEF	UBUS	1.3380e-003	0.00
tblVehicleEF	UBUS	1.3380e-003	0.00
tblVehicleEF	UBUS	1.3380e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	80.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	59.00	20.00
tblVehicleTrips	ST_TR	2.59	1.68
tblVehicleTrips	SU_TR	2.59	1.68
tblVehicleTrips	WD_TR	2.59	1.68

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.6324	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Energy	0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369
Mobile	3.1169	19.9536	39.4534	0.0891	5.1993	0.3210	5.5203	1.3944	0.2951	1.6895		8,343.9531	8,343.9531	0.2646		8,349.5097
Total	18.7691	20.1344	39.6635	0.0902	5.1993	0.3349	5.5342	1.3944	0.3090	1.7034		8,560.2960	8,560.2960	0.2691	3.9600e-003	8,567.1759

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	13.5196	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Energy	0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907
Mobile	2.7178	14.5576	31.7750	0.0629	3.6299	0.2269	3.8568	0.9735	0.2086	1.1821		5,883.3687	5,883.3687	0.1907		5,887.3726
Total	16.2514	14.6850	31.9404	0.0637	3.6299	0.2368	3.8666	0.9735	0.2185	1.1919		6,035.7546	6,035.7546	0.1939	2.7900e-003	6,040.6926

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	13.41	27.07	19.47	29.44	30.19	29.30	30.13	30.19	29.30	30.03	0.00	29.49	29.49	27.93	29.55	29.49

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2014	8/11/2014	5	30	
2	Building Construction	Building Construction	8/12/2014	8/12/2015	5	262	
3	Paving	Paving	8/13/2015	10/25/2015	5	52	
4	Architectural Coating	Architectural Coating	10/26/2015	12/31/2015	5	49	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.81

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 831,899; Non-Residential Outdoor: 277,300 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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	125	0.42
Paving	Paving Equipment	2	8.00	130	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
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	272.00	106.00	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	54.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5456	0.0000	6.5456	3.3668	0.0000	3.3668			0.0000			0.0000
Off-Road	6.8480	80.7211	51.5831	0.0618		3.8792	3.8792		3.5689	3.5689		6,554.833 7	6,554.833 7	1.9370		6,595.511 3
Total	6.8480	80.7211	51.5831	0.0618	6.5456	3.8792	10.4248	3.3668	3.5689	6.9356		6,554.833 7	6,554.833 7	1.9370		6,595.511 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1018	0.1402	1.4658	2.5500e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		227.3831	227.3831	0.0139		227.6741
Total	0.1018	0.1402	1.4658	2.5500e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		227.3831	227.3831	0.0139		227.6741

3.2 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5528	0.0000	2.5528	1.3130	0.0000	1.3130			0.0000			0.0000
Off-Road	6.8480	80.7211	51.5831	0.0618		3.8792	3.8792		3.5689	3.5689	0.0000	6,554.8337	6,554.8337	1.9370		6,595.5113
Total	6.8480	80.7211	51.5831	0.0618	2.5528	3.8792	6.4320	1.3130	3.5689	4.8819	0.0000	6,554.8337	6,554.8337	1.9370		6,595.5113

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1018	0.1402	1.4658	2.5500e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		227.3831	227.3831	0.0139		227.6741
Total	0.1018	0.1402	1.4658	2.5500e-003	0.2236	1.8600e-003	0.2254	0.0593	1.6900e-003	0.0610		227.3831	227.3831	0.0139		227.6741

3.3 Building Construction - 2014

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	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973		2,709.1969	2,709.1969	0.6889		2,723.6630
Total	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973		2,709.1969	2,709.1969	0.6889		2,723.6630

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.2775	12.3206	14.3743	0.0228	0.6660	0.2434	0.9094	0.1901	0.2238	0.4140		2,331.4901	2,331.4901	0.0210		2,331.9305
Worker	1.3838	1.9066	19.9342	0.0346	3.0403	0.0253	3.0656	0.8063	0.0230	0.8293		3,092.4105	3,092.4105	0.1884		3,096.3675
Total	2.6614	14.2272	34.3084	0.0575	3.7063	0.2687	3.9750	0.9965	0.2469	1.2433		5,423.9006	5,423.9006	0.2094		5,428.2980

3.3 Building Construction - 2014

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	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973	0.0000	2,709.1969	2,709.1969	0.6889		2,723.6630
Total	3.8680	31.2537	18.9298	0.0268		2.2280	2.2280		2.0973	2.0973	0.0000	2,709.1969	2,709.1969	0.6889		2,723.6630

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.2775	12.3206	14.3743	0.0228	0.6660	0.2434	0.9094	0.1901	0.2238	0.4140		2,331.4901	2,331.4901	0.0210		2,331.9305
Worker	1.3838	1.9066	19.9342	0.0346	3.0403	0.0253	3.0656	0.8063	0.0230	0.8293		3,092.4105	3,092.4105	0.1884		3,096.3675
Total	2.6614	14.2272	34.3084	0.0575	3.7063	0.2687	3.9750	0.9965	0.2469	1.2433		5,423.9006	5,423.9006	0.2094		5,428.2980

3.3 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.577 1	2,689.577 1	0.6748		2,703.748 3
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.577 1	2,689.577 1	0.6748		2,703.748 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0898	10.7809	12.9968	0.0229	0.6659	0.1863	0.8522	0.1901	0.1713	0.3615		2,318.415 6	2,318.415 6	0.0190		2,318.813 6
Worker	1.2328	1.6979	17.8696	0.0348	3.0403	0.0238	3.0641	0.8063	0.0218	0.8281		3,001.514 8	3,001.514 8	0.1727		3,005.141 4
Total	2.3226	12.4788	30.8663	0.0577	3.7062	0.2101	3.9163	0.9964	0.1931	1.1895		5,319.930 4	5,319.930 4	0.1916		5,323.955 0

3.3 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.577 1	2,689.577 1	0.6748		2,703.748 3
Total	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.577 1	2,689.577 1	0.6748		2,703.748 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0898	10.7809	12.9968	0.0229	0.6659	0.1863	0.8522	0.1901	0.1713	0.3615		2,318.415 6	2,318.415 6	0.0190		2,318.813 6
Worker	1.2328	1.6979	17.8696	0.0348	3.0403	0.0238	3.0641	0.8063	0.0218	0.8281		3,001.514 8	3,001.514 8	0.1727		3,005.141 4
Total	2.3226	12.4788	30.8663	0.0577	3.7062	0.2101	3.9163	0.9964	0.1931	1.1895		5,319.930 4	5,319.930 4	0.1916		5,323.955 0

3.4 Paving - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.898 4	2,339.898 4	0.6986		2,354.568 1
Paving	0.1078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4250	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.898 4	2,339.898 4	0.6986		2,354.568 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0936	0.9855	1.9200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		165.5247	165.5247	9.5200e-003		165.7247
Total	0.0680	0.0936	0.9855	1.9200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		165.5247	165.5247	9.5200e-003		165.7247

3.4 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016	0.0000	2,339.898 4	2,339.898 4	0.6986		2,354.568 1
Paving	0.1078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4250	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016	0.0000	2,339.898 4	2,339.898 4	0.6986		2,354.568 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0936	0.9855	1.9200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		165.5247	165.5247	9.5200e-003		165.7247
Total	0.0680	0.0936	0.9855	1.9200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2000e-003	0.0457		165.5247	165.5247	9.5200e-003		165.7247

3.5 Architectural Coating - 2015**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	52.4606					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	52.8672	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2448	0.3371	3.5476	6.9100e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		595.8890	595.8890	0.0343		596.6090
Total	0.2448	0.3371	3.5476	6.9100e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		595.8890	595.8890	0.0343		596.6090

3.5 Architectural Coating - 2015

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	52.4606					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	52.8672	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2448	0.3371	3.5476	6.9100e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		595.8890	595.8890	0.0343		596.6090
Total	0.2448	0.3371	3.5476	6.9100e-003	0.6036	4.7200e-003	0.6083	0.1601	4.3200e-003	0.1644		595.8890	595.8890	0.0343		596.6090

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network
- Employee Vanpool/Shuttle
- Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.7178	14.5576	31.7750	0.0629	3.6299	0.2269	3.8568	0.9735	0.2086	1.1821		5,883.3687	5,883.3687	0.1907		5,887.3726
Unmitigated	3.1169	19.9536	39.4534	0.0891	5.1993	0.3210	5.5203	1.3944	0.2951	1.6895		8,343.9531	8,343.9531	0.2646		8,349.5097

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	526.63	526.63	526.63	2,417,328	1,687,644
Parking Lot	0.00	0.00	0.00		
Total	526.63	526.63	526.63	2,417,328	1,687,644

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	40.00	8.40	6.90	20.00	0.00	80.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.432000	0.060000	0.157000	0.142000	0.030000	0.005000	0.046000	0.123000	0.000000	0.000000	0.004000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907
NaturalGas Unmitigated	0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369

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					
Unrefrigerated Warehouse-No Fuel	1837.88	0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0198	0.1802	0.1514	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.2211	216.2211	4.1400e-003	3.9600e-003	217.5369

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					
Unrefrigerated Warehouse-No Fuel	1.29424	0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0140	0.1269	0.1066	7.6000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003		152.2641	152.2641	2.9200e-003	2.7900e-003	153.1907

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	13.5196	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Unmitigated	15.6324	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293

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	2.8171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.8095					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.8100e-003	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Total	15.6324	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293

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	0.7043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.8095					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.8100e-003	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293
Total	13.5196	5.7000e-004	0.0588	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1219	0.1219	3.5000e-004		0.1293

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

APPENDIX C

AERMOD Model Printouts

PROJECT TITLE:

**Alabama Venture 1
Modeled Study Area DPM Emissions**

COMMENTS:

Red = 5 in one million risk
Yellow = 2 in one million risk
Green = 1 in one million risk
Purple = 0.5 in one million risk

SOURCES:

7

RECEPTORS:

408

OUTPUT TYPE:

Concentration

MAX:

1.3E-02 ug/m³

COMPANY NAME:

Kunzman Associates

MODELER:

Katie Wilson

DATE:

6/12/2014

SCALE:

1:7,483

0

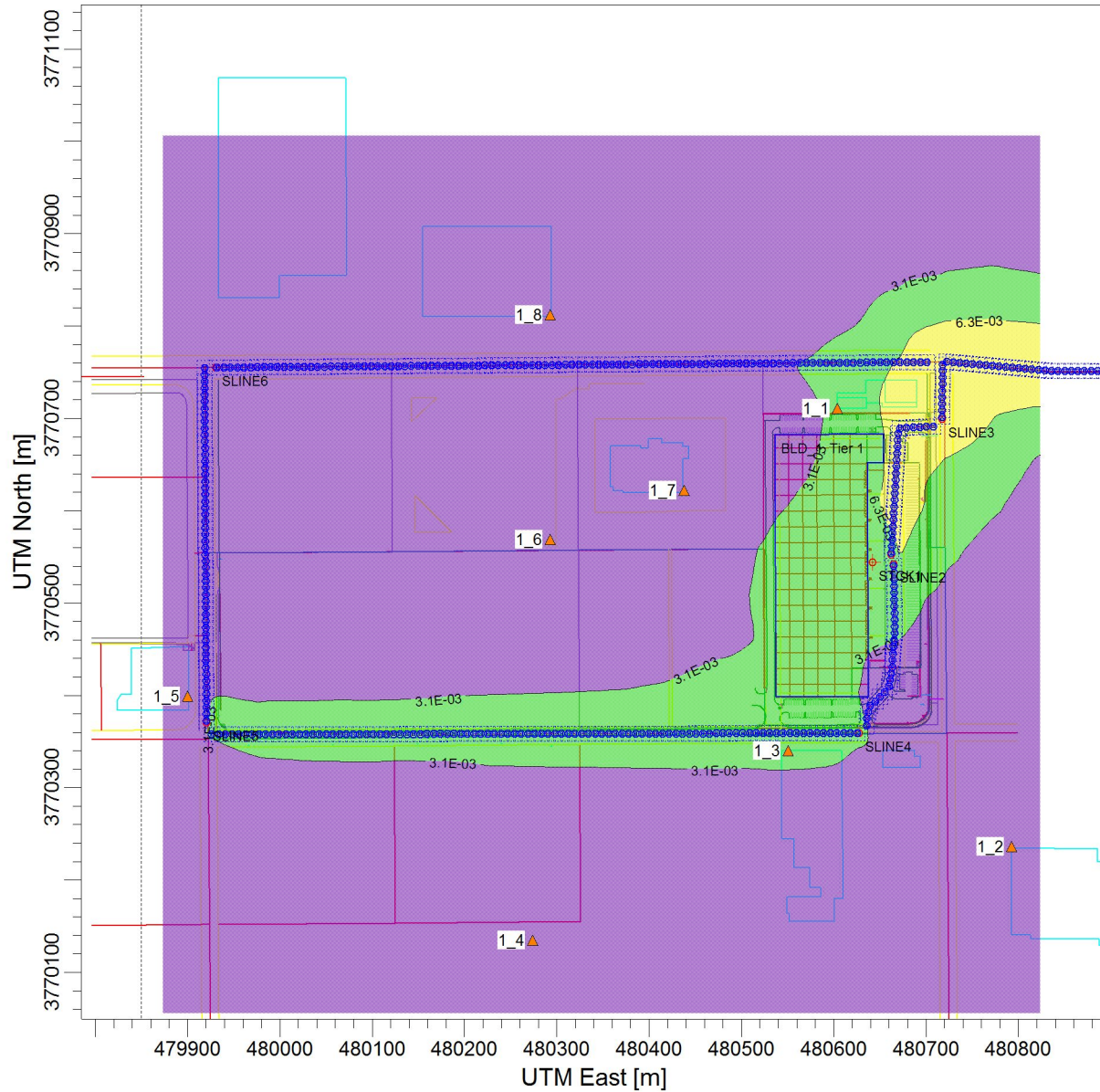
0.2 km

PROJECT NO.:

5416

ug/m³

PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
Max: 1.3E-02 [ug/m³] at (480823.56, 3770755.88)



Emission Assumptions

DPM

Emissions

Warehouse

Facility Operations

Buildout year:

2015

Emission Factors

1) Onsite Vehicle Emissions

a) Truck

(1) EMFAC2011

(a) Annual Meteorology

Temperature: 64 degF

Relative Humidity: 50%

(b) Calculations for San Bernardino County

(c) Truck Mix

4+ axle heavy-heavy duty diesel trucks (HHDT)

4 axle diesel trucks (MHDT)

2 axle diesel trucks (LHDT2)

(d) Onsite Truck Travel Speed: 10 mph

(e) Off-site Truck Travel Speed: 35 mph

(f) Idle speed: 0 mph

(g) Truck Idle time: 15 minutes per truck per day

2) Other Parameters

(a) Width of Plume: 12 feet

(b) Truck Operational Schedule: 24 hours/day

Warehouse		Emission:	DPM										
Processes Modeled		Build-out:	2015										
Onsite delivery traffic													
Truck idling													
Offsite delivery traffic													
Facilities in Operation													
Location	Truck type	Daily trucks											
Site	HHDT	64											
Site	MHDT	24											
Site	LHDT	18											
Total		106											
Delivery Schedule:													
Site		24 hrs/day, 52weeks/year											
Emission Factors													
	Onsite Exhaust	Offsite Exhaust	Idle										
Vehicle Class	(g/mi)	(g/mi)	(g/hr)										
HHDT	0.0791	0.0607	0.113										
MHDT	0.0456	0.0324	0.103										
LHDT	0.0532	0.0209	0.107										
Onsite Roadway Links Modeled													
Link	Truck Type	Emission Factor (g/mi)	Trips per day (in and out)	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over the Link (g/sec)	Max Hourly Emissions Over Link (lb/hr)	Daily Emissions (lbs/day)	Annual Avg Emissions Over Link (tons/yr)	Total Daily Emissions for all Vehicles (g/sec)		
Blgs 1	HHDT	0.0791	64	176.6	0.11	5.55E-01	6.43E-06	4.40E+00	1.22E-03	2.23E-04			
Blgs 1	MHDT	0.0456	24	176.6	0.11	1.20E-01	1.39E-06	9.52E-01	2.64E-04	4.83E-05	9.03E-06		
Blgs 1	LHDT	0.0532	18	176.6	0.11	1.05E-01	1.22E-06	8.33E-01	2.31E-04	4.22E-05	2.26E-06		
												for each driveway	
Truck Idling													
	Idle time		15 minutes										
Building/Location	Truck Type	Emission Factor (g/Idle-hour)	Idling Time (min)	Daily Trucks	Total Emissions (g/day)	Max Hourly Emissions (g/sec)	Max Hourly Emissions (lb/hr)	Total Daily Emissions (lbs/day)	Total Emissions (tons/yr)				
Blg 1	HHDT	0.113	15	64	1.81	2.09E-05	1.66E-04	3.98E-03	7.27E-04				
Blg 1	MHDT	0.103	15	24	0.62	7.15E-06	5.67E-05	1.36E-03	2.48E-04		3.37E-05		
Blg 1	LHDT	0.107	15	18	0.48	5.57E-06	4.42E-05	1.06E-03	1.94E-04				

Offsite Roadway Links Modeled											
Link	Truck Type	Emission Factor (g/mi)	Trips per day	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over the Link (g/sec)	Max Hourly Emissions Over Link (lb/hr)	Daily Emissions (lbs/day)	Annual Avg Emissions Over Link (tons/yr)	
N on Alabama E on San Bernardino	HHDT	0.0607	64	260.5	0.16	6.29E-01	7.28E-06	4.98E+00	1.38E-03	2.53E-04	
N on Alabama E on San Bernardino	MHDT	0.0324	24	260.5	0.16	1.26E-01	1.46E-06	9.98E-01	2.77E-04	5.06E-05	9.44E-06
N on Alabama E on San Bernardino	LHDT	0.0209	18	260.5	0.16	6.09E-02	7.05E-07	4.83E-01	1.34E-04	2.45E-05	2.36E-06
											25% of truck traffic
E on San Bernardino	HHDT	0.0607	64	772.6	0.48	1.86E+00	2.16E-05	1.48E+01	4.11E-03	7.49E-04	
E on San Bernardino	MHDT	0.0324	24	772.6	0.48	3.73E-01	4.32E-06	2.96E+00	8.22E-04	1.50E-04	2.80E-05
E on San Bernardino	LHDT	0.0209	18	772.6	0.48	1.81E-01	2.09E-06	1.43E+00	3.98E-04	7.26E-05	8.40E-06
											30% of truck traffic
W on Almond	HHDT	0.0607	64	702.7	0.44	1.70E+00	1.96E-05	1.34E+01	3.74E-03	6.82E-04	
W on Almond	MHDT	0.0324	24	702.7	0.44	3.39E-01	3.93E-06	2.69E+00	7.48E-04	1.36E-04	2.55E-05
W on Almond	LHDT	0.0209	18	702.7	0.44	1.64E-01	1.90E-06	1.30E+00	3.62E-04	6.60E-05	2.55E-05
											100% of truck traffic
N on Nevada	HHDT	0.0607	64	385.3	0.24	9.30E-01	1.08E-05	7.37E+00	2.05E-03	3.74E-04	
N on Nevada	MHDT	0.0324	24	385.3	0.24	1.86E-01	2.15E-06	1.48E+00	4.10E-04	7.48E-05	1.40E-05
N on Nevada	LHDT	0.0209	18	385.3	0.24	9.00E-02	1.04E-06	7.14E-01	1.98E-04	3.62E-05	5.58E-06
											40% of truck traffic

MICR Calculations

Receptor	DPM* Conc (µg/m3)	DBR** (Daily Breathing rate)	EVF*** (Exposure Value Factor)		CP**** (Cancer Potency Factor)	MICR (Maximum Individual Cancer Risk)	Cancer risk per million
1	0.00342	302	0.96	1.00E-06	1.1	1.09E-06	1.1
2	0.00049	149	0.38	1.00E-06	1.1	3.05E-08	0.0
3	0.00466	149	0.38	1.00E-06	1.1	2.90E-07	0.3
4	0.00071	302	0.96	1.00E-06	1.1	2.26E-07	0.2
5	0.00243	149	0.38	1.00E-06	1.1	1.51E-07	0.2
6	0.00124	302	0.96	1.00E-06	1.1	3.95E-07	0.4
7	0.00161	302	0.96	1.00E-06	1.1	5.13E-07	0.5
8	0.00126	149	0.38	1.00E-06	1.1	7.85E-08	0.1
Max	0.01335	149	0.38	1.00E-06	1.1	8.31E-07	0.8

* DPM concentration calculated by AERMOD

** DBR from Table 9A of 2012 "AQMD Risk Assessment Procedures for Rules 1401 and 212"

*** EVF from Table 9B of 2012 "AQMD Risk Assessment Procedures for Rules 1401 and 212"

**** CP for DPM value from 2013 "Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values"

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** Lakes Environmental AERMOD MPI
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** AERMOD Input Produced by:
** AERMOD View Ver. 8.7.0
** Lakes Environmental Software Inc.
** Date: 6/12/2014
** File: C:\Users\Kate Wilson\Desktop\Kunzman Projects\5482 Chiming AQ-GHG redo\HRA\5482 Chiming\5482 Chiming.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE Chiming Inc 5482
  TITLETWO DPM Emissions
  MODELOPT CONC FASTALL
  AVERTIME ANNUAL
  URBANOPT 2015355 San_Bernardino_County
  POLLUTID DPM
  RUNORNOT RUN
  ERRORFIL "5482 Chiming.err"
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION STCK1      POINT      480272.450  3770436.580      367.750
** DESCRSRC on site idling
** -----
** Line Source Represented by Separated Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC on-site travel 1
** PREFIX
** Length of Side = 3.66
** Configuration = Separated
** Emission Rate = 7.11E-06
** Elevated
** Building Height = 12.19
** SZINIT = 5.67
** Nodes = 3

```


** 480011.687, 3770386.310, 364.00, 0.00, 3.38
** 480011.217, 3770409.802, 364.00, 0.00, 3.38
** 480267.280, 3770410.742, 367.51, 0.00, 3.38

** -----
LOCATION L0000001 VOLUME 480011.651 3770388.139 364.00
LOCATION L0000002 VOLUME 480011.505 3770395.398 364.00
LOCATION L0000003 VOLUME 480011.360 3770402.657 364.00
LOCATION L0000004 VOLUME 480011.331 3770409.803 364.00
LOCATION L0000005 VOLUME 480018.592 3770409.829 364.00
LOCATION L0000006 VOLUME 480025.852 3770409.856 364.00
LOCATION L0000007 VOLUME 480033.113 3770409.883 364.00
LOCATION L0000008 VOLUME 480040.374 3770409.909 364.02
LOCATION L0000009 VOLUME 480047.634 3770409.936 364.26
LOCATION L0000010 VOLUME 480054.895 3770409.963 364.50
LOCATION L0000011 VOLUME 480062.155 3770409.989 364.74
LOCATION L0000012 VOLUME 480069.416 3770410.016 364.98
LOCATION L0000013 VOLUME 480076.677 3770410.042 365.00
LOCATION L0000014 VOLUME 480083.937 3770410.069 365.00
LOCATION L0000015 VOLUME 480091.198 3770410.096 365.00
LOCATION L0000016 VOLUME 480098.458 3770410.122 365.00
LOCATION L0000017 VOLUME 480105.719 3770410.149 365.04
LOCATION L0000018 VOLUME 480112.979 3770410.176 365.09
LOCATION L0000019 VOLUME 480120.240 3770410.202 365.14
LOCATION L0000020 VOLUME 480127.501 3770410.229 365.19
LOCATION L0000021 VOLUME 480134.761 3770410.256 365.33
LOCATION L0000022 VOLUME 480142.022 3770410.282 365.52
LOCATION L0000023 VOLUME 480149.282 3770410.309 365.72
LOCATION L0000024 VOLUME 480156.543 3770410.336 365.91
LOCATION L0000025 VOLUME 480163.804 3770410.362 366.00
LOCATION L0000026 VOLUME 480171.064 3770410.389 366.00
LOCATION L0000027 VOLUME 480178.325 3770410.415 366.00
LOCATION L0000028 VOLUME 480185.585 3770410.442 366.00
LOCATION L0000029 VOLUME 480192.846 3770410.469 366.10
LOCATION L0000030 VOLUME 480200.106 3770410.495 366.34
LOCATION L0000031 VOLUME 480207.367 3770410.522 366.58
LOCATION L0000032 VOLUME 480214.628 3770410.549 366.82
LOCATION L0000033 VOLUME 480221.888 3770410.575 367.00
LOCATION L0000034 VOLUME 480229.149 3770410.602 367.00
LOCATION L0000035 VOLUME 480236.409 3770410.629 367.00
LOCATION L0000036 VOLUME 480243.670 3770410.655 367.00
LOCATION L0000037 VOLUME 480250.930 3770410.682 367.03
LOCATION L0000038 VOLUME 480258.191 3770410.709 367.28
LOCATION L0000039 VOLUME 480265.452 3770410.735 367.52

** End of LINE VOLUME Source ID = SLINE1

** -----
** Line Source Represented by Separated Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC on-site travel 2
** PREFIX
** Length of Side = 3.66
** Configuration = Separated

** Emission Rate = 7.11E-06
** Elevated
** Building Height = 12.19
** SZINIT = 5.67
** Nodes = 3
** 480273.388, 3770412.151, 367.90, 0.00, 3.34
** 480533.210, 3770412.621, 371.32, 0.00, 3.34
** 480536.029, 3770389.129, 371.57, 0.00, 3.34

** -----
LOCATION L0007236 VOLUME 480275.217 3770412.155 367.84
LOCATION L0007237 VOLUME 480282.392 3770412.168 368.00
LOCATION L0007238 VOLUME 480289.567 3770412.181 368.00
LOCATION L0007239 VOLUME 480296.742 3770412.194 368.00
LOCATION L0007240 VOLUME 480303.917 3770412.207 368.00
LOCATION L0007241 VOLUME 480311.092 3770412.220 368.04
LOCATION L0007242 VOLUME 480318.267 3770412.233 368.28
LOCATION L0007243 VOLUME 480325.442 3770412.246 368.52
LOCATION L0007244 VOLUME 480332.617 3770412.259 368.76
LOCATION L0007245 VOLUME 480339.792 3770412.272 369.00
LOCATION L0007246 VOLUME 480346.967 3770412.285 369.00
LOCATION L0007247 VOLUME 480354.142 3770412.297 369.00
LOCATION L0007248 VOLUME 480361.317 3770412.310 369.00
LOCATION L0007249 VOLUME 480368.492 3770412.323 369.00
LOCATION L0007250 VOLUME 480375.667 3770412.336 369.19
LOCATION L0007251 VOLUME 480382.842 3770412.349 369.43
LOCATION L0007252 VOLUME 480390.017 3770412.362 369.67
LOCATION L0007253 VOLUME 480397.192 3770412.375 369.91
LOCATION L0007254 VOLUME 480404.367 3770412.388 370.00
LOCATION L0007255 VOLUME 480411.542 3770412.401 370.00
LOCATION L0007256 VOLUME 480418.717 3770412.414 370.00
LOCATION L0007257 VOLUME 480425.892 3770412.427 370.00
LOCATION L0007258 VOLUME 480433.067 3770412.440 370.00
LOCATION L0007259 VOLUME 480440.242 3770412.453 370.00
LOCATION L0007260 VOLUME 480447.417 3770412.466 370.00
LOCATION L0007261 VOLUME 480454.592 3770412.479 370.00
LOCATION L0007262 VOLUME 480461.767 3770412.492 370.06
LOCATION L0007263 VOLUME 480468.942 3770412.505 370.30
LOCATION L0007264 VOLUME 480476.117 3770412.518 370.54
LOCATION L0007265 VOLUME 480483.292 3770412.531 370.78
LOCATION L0007266 VOLUME 480490.467 3770412.544 371.00
LOCATION L0007267 VOLUME 480497.642 3770412.557 371.00
LOCATION L0007268 VOLUME 480504.817 3770412.570 371.00
LOCATION L0007269 VOLUME 480511.992 3770412.583 371.00
LOCATION L0007270 VOLUME 480519.167 3770412.596 371.00
LOCATION L0007271 VOLUME 480526.342 3770412.609 371.21
LOCATION L0007272 VOLUME 480533.247 3770412.317 371.45
LOCATION L0007273 VOLUME 480534.102 3770405.193 371.47
LOCATION L0007274 VOLUME 480534.956 3770398.069 371.50
LOCATION L0007275 VOLUME 480535.811 3770390.945 371.53

** End of LINE VOLUME Source ID = SLINE2

** -----

** Line Source Represented by Separated Volume Sources
 ** LINE VOLUME Source ID = SLINE3
 ** DESCRSRC off-site west on Almond
 ** PREFIX
 ** Length of Side = 3.66
 ** Configuration = Separated
 ** Emission Rate = 0.00005
 ** Elevated
 ** Vertical Dimension = 3.66
 ** SZINIT = 0.85
 ** Nodes = 2
 ** 480523.547, 3770381.738, 371.12, 0.00, 3.39
 ** 479455.894, 3770374.263, 357.00, 0.00, 3.39

LOCATION	L0007276	VOLUME	480521.718	3770381.725	371.20
LOCATION	L0007277	VOLUME	480514.430	3770381.674	371.13
LOCATION	L0007278	VOLUME	480507.143	3770381.623	371.09
LOCATION	L0007279	VOLUME	480499.855	3770381.572	371.05
LOCATION	L0007280	VOLUME	480492.568	3770381.521	371.01
LOCATION	L0007281	VOLUME	480485.280	3770381.470	370.87
LOCATION	L0007282	VOLUME	480477.992	3770381.419	370.67
LOCATION	L0007283	VOLUME	480470.705	3770381.368	370.47
LOCATION	L0007284	VOLUME	480463.417	3770381.317	370.26
LOCATION	L0007285	VOLUME	480456.129	3770381.266	370.15
LOCATION	L0007286	VOLUME	480448.842	3770381.215	370.11
LOCATION	L0007287	VOLUME	480441.554	3770381.164	370.07
LOCATION	L0007288	VOLUME	480434.266	3770381.113	370.03
LOCATION	L0007289	VOLUME	480426.979	3770381.062	370.00
LOCATION	L0007290	VOLUME	480419.691	3770381.011	370.00
LOCATION	L0007291	VOLUME	480412.404	3770380.960	370.00
LOCATION	L0007292	VOLUME	480405.116	3770380.909	370.00
LOCATION	L0007293	VOLUME	480397.828	3770380.858	369.93
LOCATION	L0007294	VOLUME	480390.541	3770380.807	369.69
LOCATION	L0007295	VOLUME	480383.253	3770380.756	369.45
LOCATION	L0007296	VOLUME	480375.965	3770380.705	369.20
LOCATION	L0007297	VOLUME	480368.678	3770380.654	369.00
LOCATION	L0007298	VOLUME	480361.390	3770380.603	369.00
LOCATION	L0007299	VOLUME	480354.102	3770380.552	369.00
LOCATION	L0007300	VOLUME	480346.815	3770380.501	369.00
LOCATION	L0007301	VOLUME	480339.527	3770380.450	368.99
LOCATION	L0007302	VOLUME	480332.240	3770380.399	368.74
LOCATION	L0007303	VOLUME	480324.952	3770380.347	368.50
LOCATION	L0007304	VOLUME	480317.664	3770380.296	368.26
LOCATION	L0007305	VOLUME	480310.377	3770380.245	368.02
LOCATION	L0007306	VOLUME	480303.089	3770380.194	368.00
LOCATION	L0007307	VOLUME	480295.801	3770380.143	368.00
LOCATION	L0007308	VOLUME	480288.514	3770380.092	368.00
LOCATION	L0007309	VOLUME	480281.226	3770380.041	368.00
LOCATION	L0007310	VOLUME	480273.938	3770379.990	367.80
LOCATION	L0007311	VOLUME	480266.651	3770379.939	367.56
LOCATION	L0007312	VOLUME	480259.363	3770379.888	367.32

LOCATION	L0007313	VOLUME	480252.075	3770379.837	367.07
LOCATION	L0007314	VOLUME	480244.788	3770379.786	367.00
LOCATION	L0007315	VOLUME	480237.500	3770379.735	367.00
LOCATION	L0007316	VOLUME	480230.213	3770379.684	367.00
LOCATION	L0007317	VOLUME	480222.925	3770379.633	367.00
LOCATION	L0007318	VOLUME	480215.637	3770379.582	366.86
LOCATION	L0007319	VOLUME	480208.350	3770379.531	366.62
LOCATION	L0007320	VOLUME	480201.062	3770379.480	366.37
LOCATION	L0007321	VOLUME	480193.774	3770379.429	366.13
LOCATION	L0007322	VOLUME	480186.487	3770379.378	366.00
LOCATION	L0007323	VOLUME	480179.199	3770379.327	366.00
LOCATION	L0007324	VOLUME	480171.911	3770379.276	366.00
LOCATION	L0007325	VOLUME	480164.624	3770379.225	366.00
LOCATION	L0007326	VOLUME	480157.336	3770379.174	366.00
LOCATION	L0007327	VOLUME	480150.049	3770379.123	366.00
LOCATION	L0007328	VOLUME	480142.761	3770379.072	366.00
LOCATION	L0007329	VOLUME	480135.473	3770379.021	366.00
LOCATION	L0007330	VOLUME	480128.186	3770378.970	365.94
LOCATION	L0007331	VOLUME	480120.898	3770378.919	365.70
LOCATION	L0007332	VOLUME	480113.610	3770378.868	365.46
LOCATION	L0007333	VOLUME	480106.323	3770378.817	365.21
LOCATION	L0007334	VOLUME	480099.035	3770378.766	365.00
LOCATION	L0007335	VOLUME	480091.747	3770378.715	365.00
LOCATION	L0007336	VOLUME	480084.460	3770378.664	365.00
LOCATION	L0007337	VOLUME	480077.172	3770378.613	365.00
LOCATION	L0007338	VOLUME	480069.885	3770378.562	365.00
LOCATION	L0007339	VOLUME	480062.597	3770378.511	364.76
LOCATION	L0007340	VOLUME	480055.309	3770378.460	364.51
LOCATION	L0007341	VOLUME	480048.022	3770378.409	364.27
LOCATION	L0007342	VOLUME	480040.734	3770378.358	364.03
LOCATION	L0007343	VOLUME	480033.446	3770378.307	364.00
LOCATION	L0007344	VOLUME	480026.159	3770378.256	364.00
LOCATION	L0007345	VOLUME	480018.871	3770378.205	364.00
LOCATION	L0007346	VOLUME	480011.583	3770378.154	364.00
LOCATION	L0007347	VOLUME	480004.296	3770378.103	364.00
LOCATION	L0007348	VOLUME	479997.008	3770378.052	364.00
LOCATION	L0007349	VOLUME	479989.721	3770378.000	364.00
LOCATION	L0007350	VOLUME	479982.433	3770377.949	364.00
LOCATION	L0007351	VOLUME	479975.145	3770377.898	363.84
LOCATION	L0007352	VOLUME	479967.858	3770377.847	363.60
LOCATION	L0007353	VOLUME	479960.570	3770377.796	363.36
LOCATION	L0007354	VOLUME	479953.282	3770377.745	363.11
LOCATION	L0007355	VOLUME	479945.995	3770377.694	363.00
LOCATION	L0007356	VOLUME	479938.707	3770377.643	363.00
LOCATION	L0007357	VOLUME	479931.419	3770377.592	363.00
LOCATION	L0007358	VOLUME	479924.132	3770377.541	363.00
LOCATION	L0007359	VOLUME	479916.844	3770377.490	362.93
LOCATION	L0007360	VOLUME	479909.556	3770377.439	362.76
LOCATION	L0007361	VOLUME	479902.269	3770377.388	362.59
LOCATION	L0007362	VOLUME	479894.981	3770377.337	362.42
LOCATION	L0007363	VOLUME	479887.694	3770377.286	362.28

LOCATION	L0007364	VOLUME	479880.406	3770377.235	362.21
LOCATION	L0007365	VOLUME	479873.118	3770377.184	362.13
LOCATION	L0007366	VOLUME	479865.831	3770377.133	362.06
LOCATION	L0007367	VOLUME	479858.543	3770377.082	362.00
LOCATION	L0007368	VOLUME	479851.255	3770377.031	362.00
LOCATION	L0007369	VOLUME	479843.968	3770376.980	362.00
LOCATION	L0007370	VOLUME	479836.680	3770376.929	362.00
LOCATION	L0007371	VOLUME	479829.392	3770376.878	361.98
LOCATION	L0007372	VOLUME	479822.105	3770376.827	361.74
LOCATION	L0007373	VOLUME	479814.817	3770376.776	361.50
LOCATION	L0007374	VOLUME	479807.530	3770376.725	361.25
LOCATION	L0007375	VOLUME	479800.242	3770376.674	361.01
LOCATION	L0007376	VOLUME	479792.954	3770376.623	361.00
LOCATION	L0007377	VOLUME	479785.667	3770376.572	361.00
LOCATION	L0007378	VOLUME	479778.379	3770376.521	361.00
LOCATION	L0007379	VOLUME	479771.091	3770376.470	361.00
LOCATION	L0007380	VOLUME	479763.804	3770376.419	360.80
LOCATION	L0007381	VOLUME	479756.516	3770376.368	360.55
LOCATION	L0007382	VOLUME	479749.228	3770376.317	360.31
LOCATION	L0007383	VOLUME	479741.941	3770376.266	360.07
LOCATION	L0007384	VOLUME	479734.653	3770376.215	360.00
LOCATION	L0007385	VOLUME	479727.366	3770376.164	360.00
LOCATION	L0007386	VOLUME	479720.078	3770376.113	360.00
LOCATION	L0007387	VOLUME	479712.790	3770376.062	360.00
LOCATION	L0007388	VOLUME	479705.503	3770376.011	360.00
LOCATION	L0007389	VOLUME	479698.215	3770375.960	360.00
LOCATION	L0007390	VOLUME	479690.927	3770375.909	360.00
LOCATION	L0007391	VOLUME	479683.640	3770375.858	360.00
LOCATION	L0007392	VOLUME	479676.352	3770375.807	359.88
LOCATION	L0007393	VOLUME	479669.064	3770375.756	359.64
LOCATION	L0007394	VOLUME	479661.777	3770375.704	359.40
LOCATION	L0007395	VOLUME	479654.489	3770375.653	359.15
LOCATION	L0007396	VOLUME	479647.202	3770375.602	359.00
LOCATION	L0007397	VOLUME	479639.914	3770375.551	359.00
LOCATION	L0007398	VOLUME	479632.626	3770375.500	359.00
LOCATION	L0007399	VOLUME	479625.339	3770375.449	359.00
LOCATION	L0007400	VOLUME	479618.051	3770375.398	359.00
LOCATION	L0007401	VOLUME	479610.763	3770375.347	359.00
LOCATION	L0007402	VOLUME	479603.476	3770375.296	359.00
LOCATION	L0007403	VOLUME	479596.188	3770375.245	359.00
LOCATION	L0007404	VOLUME	479588.900	3770375.194	358.97
LOCATION	L0007405	VOLUME	479581.613	3770375.143	358.72
LOCATION	L0007406	VOLUME	479574.325	3770375.092	358.48
LOCATION	L0007407	VOLUME	479567.038	3770375.041	358.24
LOCATION	L0007408	VOLUME	479559.750	3770374.990	358.00
LOCATION	L0007409	VOLUME	479552.462	3770374.939	358.00
LOCATION	L0007410	VOLUME	479545.175	3770374.888	358.00
LOCATION	L0007411	VOLUME	479537.887	3770374.837	358.00
LOCATION	L0007412	VOLUME	479530.599	3770374.786	358.00
LOCATION	L0007413	VOLUME	479523.312	3770374.735	358.00
LOCATION	L0007414	VOLUME	479516.024	3770374.684	358.00

LOCATION L0007415	VOLUME	479508.736	3770374.633	358.00
LOCATION L0007416	VOLUME	479501.449	3770374.582	358.00
LOCATION L0007417	VOLUME	479494.161	3770374.531	357.81
LOCATION L0007418	VOLUME	479486.873	3770374.480	357.57
LOCATION L0007419	VOLUME	479479.586	3770374.429	357.32
LOCATION L0007420	VOLUME	479472.298	3770374.378	357.08
LOCATION L0007421	VOLUME	479465.011	3770374.327	357.00
LOCATION L0007422	VOLUME	479457.723	3770374.276	357.00

** End of LINE VOLUME Source ID = SLINE3

**

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE4

** DESCRSRC Off site N on Nevada

** PREFIX

** Length of Side = 3.66

** Configuration = Separated

** Emission Rate = 9.41E-06

** Elevated

** Vertical Dimension = 3.66

** SZINIT = 0.85

** Nodes = 2

** 479931.487, 3770392.238, 362.95, 0.00, 3.37

** 479928.885, 3770765.533, 362.93, 0.00, 3.37

**

LOCATION L0007423	VOLUME	479931.474	3770394.067	363.00
LOCATION L0007424	VOLUME	479931.424	3770401.315	363.00
LOCATION L0007425	VOLUME	479931.373	3770408.563	363.00
LOCATION L0007426	VOLUME	479931.322	3770415.810	363.00
LOCATION L0007427	VOLUME	479931.272	3770423.058	363.00
LOCATION L0007428	VOLUME	479931.221	3770430.306	363.00
LOCATION L0007429	VOLUME	479931.171	3770437.554	363.00
LOCATION L0007430	VOLUME	479931.120	3770444.802	363.00
LOCATION L0007431	VOLUME	479931.070	3770452.049	363.00
LOCATION L0007432	VOLUME	479931.019	3770459.297	363.00
LOCATION L0007433	VOLUME	479930.969	3770466.545	363.00
LOCATION L0007434	VOLUME	479930.918	3770473.793	363.00
LOCATION L0007435	VOLUME	479930.868	3770481.040	363.00
LOCATION L0007436	VOLUME	479930.817	3770488.288	363.00
LOCATION L0007437	VOLUME	479930.767	3770495.536	363.00
LOCATION L0007438	VOLUME	479930.716	3770502.784	363.00
LOCATION L0007439	VOLUME	479930.666	3770510.032	363.00
LOCATION L0007440	VOLUME	479930.615	3770517.279	363.00
LOCATION L0007441	VOLUME	479930.565	3770524.527	363.00
LOCATION L0007442	VOLUME	479930.514	3770531.775	363.00
LOCATION L0007443	VOLUME	479930.464	3770539.023	363.00
LOCATION L0007444	VOLUME	479930.413	3770546.271	363.00
LOCATION L0007445	VOLUME	479930.363	3770553.518	363.00
LOCATION L0007446	VOLUME	479930.312	3770560.766	363.00
LOCATION L0007447	VOLUME	479930.262	3770568.014	363.00
LOCATION L0007448	VOLUME	479930.211	3770575.262	363.00
LOCATION L0007449	VOLUME	479930.161	3770582.510	363.00

LOCATION	L0007450	VOLUME	479930.110	3770589.757	363.00
LOCATION	L0007451	VOLUME	479930.060	3770597.005	363.00
LOCATION	L0007452	VOLUME	479930.009	3770604.253	363.00
LOCATION	L0007453	VOLUME	479929.959	3770611.501	363.00
LOCATION	L0007454	VOLUME	479929.908	3770618.749	363.00
LOCATION	L0007455	VOLUME	479929.858	3770625.996	363.00
LOCATION	L0007456	VOLUME	479929.807	3770633.244	363.00
LOCATION	L0007457	VOLUME	479929.757	3770640.492	363.00
LOCATION	L0007458	VOLUME	479929.706	3770647.740	363.00
LOCATION	L0007459	VOLUME	479929.656	3770654.988	363.00
LOCATION	L0007460	VOLUME	479929.605	3770662.235	363.00
LOCATION	L0007461	VOLUME	479929.555	3770669.483	363.00
LOCATION	L0007462	VOLUME	479929.504	3770676.731	363.00
LOCATION	L0007463	VOLUME	479929.454	3770683.979	363.00
LOCATION	L0007464	VOLUME	479929.403	3770691.226	363.00
LOCATION	L0007465	VOLUME	479929.353	3770698.474	363.00
LOCATION	L0007466	VOLUME	479929.302	3770705.722	363.00
LOCATION	L0007467	VOLUME	479929.252	3770712.970	363.00
LOCATION	L0007468	VOLUME	479929.201	3770720.218	363.00
LOCATION	L0007469	VOLUME	479929.151	3770727.465	363.00
LOCATION	L0007470	VOLUME	479929.100	3770734.713	363.00
LOCATION	L0007471	VOLUME	479929.050	3770741.961	363.00
LOCATION	L0007472	VOLUME	479928.999	3770749.209	363.00
LOCATION	L0007473	VOLUME	479928.949	3770756.457	363.00
LOCATION	L0007474	VOLUME	479928.898	3770763.704	363.00

** End of LINE VOLUME Source ID = SLINE4

** -----

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE5

** DESCRSRC Off site E on SBdo

** PREFIX

** Length of Side = 3.66

** Configuration = Separated

** Emission Rate = 0.0000145

** Elevated

** Vertical Dimension = 3.66

** SZINIT = 0.85

** Nodes = 2

** 479928.570, 3770778.675, 362.96, 0.00, 3.38

** 480732.337, 3770785.029, 373.95, 0.00, 3.38

** -----

LOCATION	L0007475	VOLUME	479930.399	3770778.690	363.00
LOCATION	L0007476	VOLUME	479937.673	3770778.747	363.00
LOCATION	L0007477	VOLUME	479944.947	3770778.805	363.00
LOCATION	L0007478	VOLUME	479952.220	3770778.862	363.08
LOCATION	L0007479	VOLUME	479959.494	3770778.920	363.32
LOCATION	L0007480	VOLUME	479966.768	3770778.977	363.56
LOCATION	L0007481	VOLUME	479974.042	3770779.035	363.81
LOCATION	L0007482	VOLUME	479981.315	3770779.092	364.00
LOCATION	L0007483	VOLUME	479988.589	3770779.150	364.00
LOCATION	L0007484	VOLUME	479995.863	3770779.207	364.00

LOCATION	L0007485	VOLUME	480003.136	3770779.265	364.00
LOCATION	L0007486	VOLUME	480010.410	3770779.322	364.02
LOCATION	L0007487	VOLUME	480017.684	3770779.380	364.23
LOCATION	L0007488	VOLUME	480024.958	3770779.437	364.45
LOCATION	L0007489	VOLUME	480032.231	3770779.495	364.67
LOCATION	L0007490	VOLUME	480039.505	3770779.552	364.88
LOCATION	L0007491	VOLUME	480046.779	3770779.610	364.92
LOCATION	L0007492	VOLUME	480054.052	3770779.667	364.94
LOCATION	L0007493	VOLUME	480061.326	3770779.725	364.97
LOCATION	L0007494	VOLUME	480068.600	3770779.782	365.00
LOCATION	L0007495	VOLUME	480075.874	3770779.840	365.18
LOCATION	L0007496	VOLUME	480083.147	3770779.897	365.39
LOCATION	L0007497	VOLUME	480090.421	3770779.955	365.60
LOCATION	L0007498	VOLUME	480097.695	3770780.012	365.81
LOCATION	L0007499	VOLUME	480104.968	3770780.070	365.90
LOCATION	L0007500	VOLUME	480112.242	3770780.127	365.92
LOCATION	L0007501	VOLUME	480119.516	3770780.185	365.96
LOCATION	L0007502	VOLUME	480126.790	3770780.242	365.99
LOCATION	L0007503	VOLUME	480134.063	3770780.300	366.00
LOCATION	L0007504	VOLUME	480141.337	3770780.357	366.00
LOCATION	L0007505	VOLUME	480148.611	3770780.415	366.00
LOCATION	L0007506	VOLUME	480155.884	3770780.472	366.00
LOCATION	L0007507	VOLUME	480163.158	3770780.530	366.11
LOCATION	L0007508	VOLUME	480170.432	3770780.587	366.35
LOCATION	L0007509	VOLUME	480177.706	3770780.645	366.59
LOCATION	L0007510	VOLUME	480184.979	3770780.702	366.84
LOCATION	L0007511	VOLUME	480192.253	3770780.760	367.00
LOCATION	L0007512	VOLUME	480199.527	3770780.817	367.00
LOCATION	L0007513	VOLUME	480206.800	3770780.875	367.00
LOCATION	L0007514	VOLUME	480214.074	3770780.932	367.00
LOCATION	L0007515	VOLUME	480221.348	3770780.990	367.00
LOCATION	L0007516	VOLUME	480228.622	3770781.047	367.00
LOCATION	L0007517	VOLUME	480235.895	3770781.105	367.00
LOCATION	L0007518	VOLUME	480243.169	3770781.162	367.00
LOCATION	L0007519	VOLUME	480250.443	3770781.220	367.02
LOCATION	L0007520	VOLUME	480257.717	3770781.277	367.26
LOCATION	L0007521	VOLUME	480264.990	3770781.335	367.50
LOCATION	L0007522	VOLUME	480272.264	3770781.392	367.75
LOCATION	L0007523	VOLUME	480279.538	3770781.450	367.99
LOCATION	L0007524	VOLUME	480286.811	3770781.507	368.00
LOCATION	L0007525	VOLUME	480294.085	3770781.565	368.00
LOCATION	L0007526	VOLUME	480301.359	3770781.622	368.00
LOCATION	L0007527	VOLUME	480308.633	3770781.680	368.00
LOCATION	L0007528	VOLUME	480315.906	3770781.737	368.00
LOCATION	L0007529	VOLUME	480323.180	3770781.795	368.00
LOCATION	L0007530	VOLUME	480330.454	3770781.852	368.00
LOCATION	L0007531	VOLUME	480337.727	3770781.910	368.00
LOCATION	L0007532	VOLUME	480345.001	3770781.967	368.17
LOCATION	L0007533	VOLUME	480352.275	3770782.025	368.41
LOCATION	L0007534	VOLUME	480359.549	3770782.082	368.66
LOCATION	L0007535	VOLUME	480366.822	3770782.140	368.90

LOCATION	L0007536	VOLUME	480374.096	3770782.197	369.00
LOCATION	L0007537	VOLUME	480381.370	3770782.255	369.00
LOCATION	L0007538	VOLUME	480388.643	3770782.312	369.00
LOCATION	L0007539	VOLUME	480395.917	3770782.370	369.00
LOCATION	L0007540	VOLUME	480403.191	3770782.427	369.11
LOCATION	L0007541	VOLUME	480410.465	3770782.485	369.35
LOCATION	L0007542	VOLUME	480417.738	3770782.542	369.59
LOCATION	L0007543	VOLUME	480425.012	3770782.600	369.84
LOCATION	L0007544	VOLUME	480432.286	3770782.657	370.00
LOCATION	L0007545	VOLUME	480439.559	3770782.715	370.00
LOCATION	L0007546	VOLUME	480446.833	3770782.772	370.00
LOCATION	L0007547	VOLUME	480454.107	3770782.830	370.00
LOCATION	L0007548	VOLUME	480461.381	3770782.887	370.00
LOCATION	L0007549	VOLUME	480468.654	3770782.945	370.00
LOCATION	L0007550	VOLUME	480475.928	3770783.002	370.00
LOCATION	L0007551	VOLUME	480483.202	3770783.060	370.00
LOCATION	L0007552	VOLUME	480490.475	3770783.117	370.02
LOCATION	L0007553	VOLUME	480497.749	3770783.175	370.26
LOCATION	L0007554	VOLUME	480505.023	3770783.232	370.50
LOCATION	L0007555	VOLUME	480512.297	3770783.290	370.75
LOCATION	L0007556	VOLUME	480519.570	3770783.347	370.99
LOCATION	L0007557	VOLUME	480526.844	3770783.405	371.00
LOCATION	L0007558	VOLUME	480534.118	3770783.462	371.00
LOCATION	L0007559	VOLUME	480541.392	3770783.520	371.00
LOCATION	L0007560	VOLUME	480548.665	3770783.577	371.00
LOCATION	L0007561	VOLUME	480555.939	3770783.635	371.20
LOCATION	L0007562	VOLUME	480563.213	3770783.692	371.44
LOCATION	L0007563	VOLUME	480570.486	3770783.750	371.69
LOCATION	L0007564	VOLUME	480577.760	3770783.807	371.93
LOCATION	L0007565	VOLUME	480585.034	3770783.865	372.00
LOCATION	L0007566	VOLUME	480592.308	3770783.922	372.00
LOCATION	L0007567	VOLUME	480599.581	3770783.980	372.00
LOCATION	L0007568	VOLUME	480606.855	3770784.037	372.00
LOCATION	L0007569	VOLUME	480614.129	3770784.095	372.00
LOCATION	L0007570	VOLUME	480621.402	3770784.152	372.00
LOCATION	L0007571	VOLUME	480628.676	3770784.210	372.00
LOCATION	L0007572	VOLUME	480635.950	3770784.267	372.00
LOCATION	L0007573	VOLUME	480643.224	3770784.325	372.11
LOCATION	L0007574	VOLUME	480650.497	3770784.382	372.35
LOCATION	L0007575	VOLUME	480657.771	3770784.440	372.60
LOCATION	L0007576	VOLUME	480665.045	3770784.497	372.84
LOCATION	L0007577	VOLUME	480672.318	3770784.555	373.00
LOCATION	L0007578	VOLUME	480679.592	3770784.612	373.00
LOCATION	L0007579	VOLUME	480686.866	3770784.670	373.00
LOCATION	L0007580	VOLUME	480694.140	3770784.727	373.00
LOCATION	L0007581	VOLUME	480701.413	3770784.785	373.05
LOCATION	L0007582	VOLUME	480708.687	3770784.842	373.29
LOCATION	L0007583	VOLUME	480715.961	3770784.900	373.54
LOCATION	L0007584	VOLUME	480723.234	3770784.957	373.78
LOCATION	L0007585	VOLUME	480730.508	3770785.015	374.00

** End of LINE VOLUME Source ID = SLINE5

** Source Parameters **

SRCPARAM STCK1 0.000067 3.658 366.483 51.81600 0.100

** LINE VOLUME Source ID = SLINE1

SRCPARAM L0000001	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000002	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000003	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000004	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000005	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000006	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000007	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000008	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000009	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000010	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000011	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000012	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000013	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000014	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000015	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000016	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000017	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000018	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000019	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000020	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000021	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000022	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000023	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000024	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000025	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000026	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000027	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000028	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000029	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000030	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000031	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000032	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000033	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000034	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000035	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000036	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000037	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000038	0.0000001823	0.00	3.38	5.67
SRCPARAM L0000039	0.0000001823	0.00	3.38	5.67

**

** LINE VOLUME Source ID = SLINE2

SRCPARAM L0007236	0.0000001777	0.00	3.34	5.67
SRCPARAM L0007237	0.0000001777	0.00	3.34	5.67
SRCPARAM L0007238	0.0000001777	0.00	3.34	5.67
SRCPARAM L0007239	0.0000001777	0.00	3.34	5.67
SRCPARAM L0007240	0.0000001777	0.00	3.34	5.67
SRCPARAM L0007241	0.0000001777	0.00	3.34	5.67
SRCPARAM L0007242	0.0000001777	0.00	3.34	5.67

SRCPARAM	L0007243	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007244	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007245	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007246	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007247	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007248	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007249	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007250	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007251	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007252	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007253	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007254	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007255	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007256	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007257	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007258	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007259	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007260	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007261	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007262	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007263	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007264	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007265	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007266	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007267	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007268	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007269	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007270	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007271	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007272	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007273	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007274	0.0000001777	0.00	3.34	5.67
SRCPARAM	L0007275	0.0000001777	0.00	3.34	5.67

**

 ** LINE VOLUME Source ID = SLINE3

SRCPARAM	L0007276	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007277	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007278	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007279	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007280	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007281	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007282	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007283	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007284	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007285	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007286	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007287	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007288	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007289	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007290	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007291	0.0000003401	0.00	3.39	0.85

SRCPARAM	L0007394	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007395	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007396	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007397	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007398	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007399	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007400	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007401	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007402	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007403	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007404	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007405	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007406	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007407	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007408	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007409	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007410	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007411	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007412	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007413	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007414	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007415	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007416	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007417	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007418	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007419	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007420	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007421	0.0000003401	0.00	3.39	0.85
SRCPARAM	L0007422	0.0000003401	0.00	3.39	0.85

**

** LINE VOLUME Source ID = SLINE4

SRCPARAM	L0007423	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007424	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007425	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007426	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007427	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007428	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007429	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007430	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007431	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007432	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007433	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007434	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007435	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007436	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007437	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007438	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007439	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007440	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007441	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007442	0.000000181	0.00	3.37	0.85

SRCPARAM	L0007443	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007444	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007445	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007446	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007447	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007448	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007449	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007450	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007451	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007452	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007453	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007454	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007455	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007456	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007457	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007458	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007459	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007460	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007461	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007462	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007463	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007464	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007465	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007466	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007467	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007468	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007469	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007470	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007471	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007472	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007473	0.000000181	0.00	3.37	0.85
SRCPARAM	L0007474	0.000000181	0.00	3.37	0.85

**

** LINE VOLUME Source ID = SLINE5

SRCPARAM	L0007475	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007476	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007477	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007478	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007479	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007480	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007481	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007482	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007483	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007484	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007485	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007486	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007487	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007488	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007489	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007490	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007491	0.0000001306	0.00	3.38	0.85

SRCPARAM	L0007543	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007544	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007545	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007546	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007547	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007548	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007549	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007550	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007551	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007552	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007553	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007554	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007555	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007556	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007557	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007558	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007559	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007560	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007561	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007562	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007563	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007564	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007565	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007566	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007567	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007568	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007569	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007570	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007571	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007572	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007573	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007574	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007575	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007576	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007577	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007578	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007579	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007580	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007581	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007582	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007583	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007584	0.0000001306	0.00	3.38	0.85
SRCPARAM	L0007585	0.0000001306	0.00	3.38	0.85

**

** Building Downwash **

BUILDHGT	STCK1	12.19	12.19	12.19	12.19	12.19	12.19
BUILDHGT	STCK1	12.19	12.19	12.19	12.19	12.19	12.19
BUILDHGT	STCK1	12.19	12.19	12.19	12.19	12.19	12.19
BUILDHGT	STCK1	12.19	12.19	12.19	12.19	12.19	12.19
BUILDHGT	STCK1	12.19	12.19	12.19	12.19	12.19	12.19

BUILDHGT	STCK1	12.19	12.19	12.19	12.19	12.19	12.19
BUILDWID	STCK1	499.94	501.19	487.20	458.41	415.70	360.35
BUILDWID	STCK1	294.05	218.82	140.77	222.72	297.91	364.05
BUILDWID	STCK1	419.12	461.46	489.78	503.21	501.36	484.27
BUILDWID	STCK1	499.94	501.19	487.20	458.41	415.70	360.35
BUILDWID	STCK1	294.05	218.82	140.77	222.72	297.91	364.05
BUILDWID	STCK1	419.12	461.46	489.78	503.21	501.36	484.27
BUILDLN	STCK1	222.72	297.91	364.05	419.12	461.46	489.78
BUILDLN	STCK1	503.21	501.36	484.27	499.94	501.19	487.20
BUILDLN	STCK1	458.41	415.70	360.35	294.05	218.82	140.77
BUILDLN	STCK1	222.72	297.91	364.05	419.12	461.46	489.78
BUILDLN	STCK1	503.21	501.36	484.27	499.94	501.19	487.20
BUILDLN	STCK1	458.41	415.70	360.35	294.05	218.82	140.77
XBADJ	STCK1	-55.17	-97.09	-136.05	-170.89	-200.52	-224.07
XBADJ	STCK1	-240.81	-250.23	-252.05	-269.37	-279.27	-280.69
XBADJ	STCK1	-273.57	-258.15	-234.88	-204.47	-167.85	-129.19
XBADJ	STCK1	-167.55	-200.82	-227.99	-248.23	-260.93	-265.70
XBADJ	STCK1	-262.40	-251.13	-232.22	-230.57	-221.91	-206.51
XBADJ	STCK1	-184.84	-157.55	-125.47	-89.58	-50.97	-11.58
YBADJ	STCK1	19.40	28.68	37.09	44.37	50.30	54.70
YBADJ	STCK1	57.44	58.44	58.80	56.19	51.87	45.97
YBADJ	STCK1	38.67	30.20	20.82	10.80	0.45	-9.91
YBADJ	STCK1	-19.40	-28.68	-37.09	-44.37	-50.30	-54.70
YBADJ	STCK1	-57.44	-58.44	-58.80	-56.19	-51.87	-45.97
YBADJ	STCK1	-38.67	-30.20	-20.82	-10.80	-0.45	9.91

URBANSRC ALL
SRCGROUP ALL

SO FINISHED

**

** AERMOD Receptor Pathway

**

**

RE STARTING

INCLUDED "5482 Chiming.rou"

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING

SURFFILE "..\..\..\Met data\SNBO2.SFC"

PROFFILE "..\..\..\Met data\SNBO2.PFL"

SURFDATA 0 2005 474.76 3773.82
UAIRDATA 3190 2005
SITEDATA 99999 2005
PROFBASE 305.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

** Auto-Generated Plotfiles

PLOTFILE ANNUAL ALL "5482 CHIMING.AD\AN00GALL.PLT" 31

SUMMFILE "5482 Chiming.sum"

OU FINISHED

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
SO W320 511 PPARAM:Input Parameter May Be Out-of-Range for Parameter VS
ME W396 973 MEOPEN:Met data from outdated version of AERMET, version: 11059

*** SETUP Finishes Successfully ***

*** AERMOD - VERSION 12345 *** *** Chiming Inc 5482 *** 06/12/14
 *** DPM Emissions *** 22:17:35

**MODELOPTs: NonDEFAULT CONC ELEV FASTALL

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

```
-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 390 Source(s),
  for Total of 1 Urban Area(s):
  Urban Population = 2015355.0 ; Urban Roughness Length = 1.000 m

**Model Allows User-Specified Options:
  1. Stack-tip Downwash.
  2. Model Accounts for ELEVated Terrain Effects.
  3. Use Calms Processing Routine.
  4. Use Missing Data Processing Routine.
  5. No Exponential Decay.
  6. Urban Roughness Length of 1.0 Meter Used.

**Other Options Specified:
  FASTALL - Use effective sigma-y to optimize meander for
            POINT and VOLUME sources, and hybrid approach
            to optimize AREA sources (formerly TOXICS option)

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes: 390 Source(s); 1 Source Group(s); and 8 Receptor(s)

**The Model Assumes A Pollutant Type of: DPM

**Model Set To Continue RUNNING After the Setup Testing.

**Output Options Selected:
  Model Outputs Tables of ANNUAL Averages by Receptor
  Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
  Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                    m for Missing Hours
                                                    b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 305.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
  Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
  Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 4.2 MB of RAM.

**Detailed Error/Message File: 5482 Chiming.err
**File for Summary of Results: 5482 Chiming.sum
```

*** AERMOD - VERSION 12345 ***
 *** Chiming Inc 5482
 *** DPM Emissions

*** 06/12/14
 *** 22:17:35
 PAGE 2
 FASTALL

**MODELOPTs: NonDEFAULT CONC

ELEV

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK1	0	0.67000E-04	480272.5	3770436.6	367.8	3.66	366.48	51.82	0.10	YES	YES	NO	

*** AERMOD - VERSION 12345 ***
 *** Chiming Inc 5482
 *** DPM Emissions

*** 06/12/14
 *** 22:17:35
 PAGE 3
 FASTALL

**MODELOPTs: NonDEFAULT CONC

ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.18230E-06	480011.7	3770388.1	364.0	0.00	3.38	5.67	YES	
L0000002	0	0.18230E-06	480011.5	3770395.4	364.0	0.00	3.38	5.67	YES	
L0000003	0	0.18230E-06	480011.4	3770402.7	364.0	0.00	3.38	5.67	YES	
L0000004	0	0.18230E-06	480011.3	3770409.8	364.0	0.00	3.38	5.67	YES	
L0000005	0	0.18230E-06	480018.6	3770409.8	364.0	0.00	3.38	5.67	YES	
L0000006	0	0.18230E-06	480025.9	3770409.9	364.0	0.00	3.38	5.67	YES	
L0000007	0	0.18230E-06	480033.1	3770409.9	364.0	0.00	3.38	5.67	YES	
L0000008	0	0.18230E-06	480040.4	3770409.9	364.0	0.00	3.38	5.67	YES	
L0000009	0	0.18230E-06	480047.6	3770409.9	364.3	0.00	3.38	5.67	YES	
L0000010	0	0.18230E-06	480054.9	3770410.0	364.5	0.00	3.38	5.67	YES	
L0000011	0	0.18230E-06	480062.2	3770410.0	364.7	0.00	3.38	5.67	YES	
L0000012	0	0.18230E-06	480069.4	3770410.0	365.0	0.00	3.38	5.67	YES	
L0000013	0	0.18230E-06	480076.7	3770410.0	365.0	0.00	3.38	5.67	YES	
L0000014	0	0.18230E-06	480083.9	3770410.1	365.0	0.00	3.38	5.67	YES	
L0000015	0	0.18230E-06	480091.2	3770410.1	365.0	0.00	3.38	5.67	YES	
L0000016	0	0.18230E-06	480098.5	3770410.1	365.0	0.00	3.38	5.67	YES	
L0000017	0	0.18230E-06	480105.7	3770410.1	365.0	0.00	3.38	5.67	YES	
L0000018	0	0.18230E-06	480113.0	3770410.2	365.1	0.00	3.38	5.67	YES	
L0000019	0	0.18230E-06	480120.2	3770410.2	365.1	0.00	3.38	5.67	YES	
L0000020	0	0.18230E-06	480127.5	3770410.2	365.2	0.00	3.38	5.67	YES	
L0000021	0	0.18230E-06	480134.8	3770410.3	365.3	0.00	3.38	5.67	YES	

L0000022	0	0.18230E-06	480142.0	3770410.3	365.5	0.00	3.38	5.67	YES
L0000023	0	0.18230E-06	480149.3	3770410.3	365.7	0.00	3.38	5.67	YES
L0000024	0	0.18230E-06	480156.5	3770410.3	365.9	0.00	3.38	5.67	YES
L0000025	0	0.18230E-06	480163.8	3770410.4	366.0	0.00	3.38	5.67	YES
L0000026	0	0.18230E-06	480171.1	3770410.4	366.0	0.00	3.38	5.67	YES
L0000027	0	0.18230E-06	480178.3	3770410.4	366.0	0.00	3.38	5.67	YES
L0000028	0	0.18230E-06	480185.6	3770410.4	366.0	0.00	3.38	5.67	YES
L0000029	0	0.18230E-06	480192.8	3770410.5	366.1	0.00	3.38	5.67	YES
L0000030	0	0.18230E-06	480200.1	3770410.5	366.3	0.00	3.38	5.67	YES
L0000031	0	0.18230E-06	480207.4	3770410.5	366.6	0.00	3.38	5.67	YES
L0000032	0	0.18230E-06	480214.6	3770410.5	366.8	0.00	3.38	5.67	YES
L0000033	0	0.18230E-06	480221.9	3770410.6	367.0	0.00	3.38	5.67	YES
L0000034	0	0.18230E-06	480229.1	3770410.6	367.0	0.00	3.38	5.67	YES
L0000035	0	0.18230E-06	480236.4	3770410.6	367.0	0.00	3.38	5.67	YES
L0000036	0	0.18230E-06	480243.7	3770410.7	367.0	0.00	3.38	5.67	YES
L0000037	0	0.18230E-06	480250.9	3770410.7	367.0	0.00	3.38	5.67	YES
L0000038	0	0.18230E-06	480258.2	3770410.7	367.3	0.00	3.38	5.67	YES
L0000039	0	0.18230E-06	480265.5	3770410.7	367.5	0.00	3.38	5.67	YES
L0007236	0	0.17770E-06	480275.2	3770412.2	367.8	0.00	3.34	5.67	YES

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**MODELOPTs: NonDEFAULT CONC

ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007237	0	0.17770E-06	480282.4	3770412.2	368.0	0.00	3.34	5.67	YES	
L0007238	0	0.17770E-06	480289.6	3770412.2	368.0	0.00	3.34	5.67	YES	
L0007239	0	0.17770E-06	480296.7	3770412.2	368.0	0.00	3.34	5.67	YES	
L0007240	0	0.17770E-06	480303.9	3770412.2	368.0	0.00	3.34	5.67	YES	
L0007241	0	0.17770E-06	480311.1	3770412.2	368.0	0.00	3.34	5.67	YES	
L0007242	0	0.17770E-06	480318.3	3770412.2	368.3	0.00	3.34	5.67	YES	
L0007243	0	0.17770E-06	480325.4	3770412.2	368.5	0.00	3.34	5.67	YES	
L0007244	0	0.17770E-06	480332.6	3770412.3	368.8	0.00	3.34	5.67	YES	
L0007245	0	0.17770E-06	480339.8	3770412.3	369.0	0.00	3.34	5.67	YES	
L0007246	0	0.17770E-06	480347.0	3770412.3	369.0	0.00	3.34	5.67	YES	
L0007247	0	0.17770E-06	480354.1	3770412.3	369.0	0.00	3.34	5.67	YES	
L0007248	0	0.17770E-06	480361.3	3770412.3	369.0	0.00	3.34	5.67	YES	
L0007249	0	0.17770E-06	480368.5	3770412.3	369.0	0.00	3.34	5.67	YES	
L0007250	0	0.17770E-06	480375.7	3770412.3	369.2	0.00	3.34	5.67	YES	
L0007251	0	0.17770E-06	480382.8	3770412.3	369.4	0.00	3.34	5.67	YES	
L0007252	0	0.17770E-06	480390.0	3770412.4	369.7	0.00	3.34	5.67	YES	
L0007253	0	0.17770E-06	480397.2	3770412.4	369.9	0.00	3.34	5.67	YES	

L0007254	0	0.17770E-06	480404.4	3770412.4	370.0	0.00	3.34	5.67	YES
L0007255	0	0.17770E-06	480411.5	3770412.4	370.0	0.00	3.34	5.67	YES
L0007256	0	0.17770E-06	480418.7	3770412.4	370.0	0.00	3.34	5.67	YES
L0007257	0	0.17770E-06	480425.9	3770412.4	370.0	0.00	3.34	5.67	YES
L0007258	0	0.17770E-06	480433.1	3770412.4	370.0	0.00	3.34	5.67	YES
L0007259	0	0.17770E-06	480440.2	3770412.5	370.0	0.00	3.34	5.67	YES
L0007260	0	0.17770E-06	480447.4	3770412.5	370.0	0.00	3.34	5.67	YES
L0007261	0	0.17770E-06	480454.6	3770412.5	370.0	0.00	3.34	5.67	YES
L0007262	0	0.17770E-06	480461.8	3770412.5	370.1	0.00	3.34	5.67	YES
L0007263	0	0.17770E-06	480468.9	3770412.5	370.3	0.00	3.34	5.67	YES
L0007264	0	0.17770E-06	480476.1	3770412.5	370.5	0.00	3.34	5.67	YES
L0007265	0	0.17770E-06	480483.3	3770412.5	370.8	0.00	3.34	5.67	YES
L0007266	0	0.17770E-06	480490.5	3770412.5	371.0	0.00	3.34	5.67	YES
L0007267	0	0.17770E-06	480497.6	3770412.6	371.0	0.00	3.34	5.67	YES
L0007268	0	0.17770E-06	480504.8	3770412.6	371.0	0.00	3.34	5.67	YES
L0007269	0	0.17770E-06	480512.0	3770412.6	371.0	0.00	3.34	5.67	YES
L0007270	0	0.17770E-06	480519.2	3770412.6	371.0	0.00	3.34	5.67	YES
L0007271	0	0.17770E-06	480526.3	3770412.6	371.2	0.00	3.34	5.67	YES
L0007272	0	0.17770E-06	480533.2	3770412.3	371.4	0.00	3.34	5.67	YES
L0007273	0	0.17770E-06	480534.1	3770405.2	371.5	0.00	3.34	5.67	YES
L0007274	0	0.17770E-06	480535.0	3770398.1	371.5	0.00	3.34	5.67	YES
L0007275	0	0.17770E-06	480535.8	3770390.9	371.5	0.00	3.34	5.67	YES
L0007276	0	0.34010E-06	480521.7	3770381.7	371.2	0.00	3.39	0.85	YES

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**MODELOPTs: NonDEFAULT CONC

ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007277	0	0.34010E-06	480514.4	3770381.7	371.1	0.00	3.39	0.85	YES	
L0007278	0	0.34010E-06	480507.1	3770381.6	371.1	0.00	3.39	0.85	YES	
L0007279	0	0.34010E-06	480499.9	3770381.6	371.1	0.00	3.39	0.85	YES	
L0007280	0	0.34010E-06	480492.6	3770381.5	371.0	0.00	3.39	0.85	YES	
L0007281	0	0.34010E-06	480485.3	3770381.5	370.9	0.00	3.39	0.85	YES	
L0007282	0	0.34010E-06	480478.0	3770381.4	370.7	0.00	3.39	0.85	YES	
L0007283	0	0.34010E-06	480470.7	3770381.4	370.5	0.00	3.39	0.85	YES	
L0007284	0	0.34010E-06	480463.4	3770381.3	370.3	0.00	3.39	0.85	YES	
L0007285	0	0.34010E-06	480456.1	3770381.3	370.2	0.00	3.39	0.85	YES	
L0007286	0	0.34010E-06	480448.8	3770381.2	370.1	0.00	3.39	0.85	YES	
L0007287	0	0.34010E-06	480441.6	3770381.2	370.1	0.00	3.39	0.85	YES	
L0007288	0	0.34010E-06	480434.3	3770381.1	370.0	0.00	3.39	0.85	YES	
L0007289	0	0.34010E-06	480427.0	3770381.1	370.0	0.00	3.39	0.85	YES	

L0007290	0	0.34010E-06	480419.7	3770381.0	370.0	0.00	3.39	0.85	YES
L0007291	0	0.34010E-06	480412.4	3770381.0	370.0	0.00	3.39	0.85	YES
L0007292	0	0.34010E-06	480405.1	3770380.9	370.0	0.00	3.39	0.85	YES
L0007293	0	0.34010E-06	480397.8	3770380.9	369.9	0.00	3.39	0.85	YES
L0007294	0	0.34010E-06	480390.5	3770380.8	369.7	0.00	3.39	0.85	YES
L0007295	0	0.34010E-06	480383.3	3770380.8	369.4	0.00	3.39	0.85	YES
L0007296	0	0.34010E-06	480376.0	3770380.7	369.2	0.00	3.39	0.85	YES
L0007297	0	0.34010E-06	480368.7	3770380.7	369.0	0.00	3.39	0.85	YES
L0007298	0	0.34010E-06	480361.4	3770380.6	369.0	0.00	3.39	0.85	YES
L0007299	0	0.34010E-06	480354.1	3770380.6	369.0	0.00	3.39	0.85	YES
L0007300	0	0.34010E-06	480346.8	3770380.5	369.0	0.00	3.39	0.85	YES
L0007301	0	0.34010E-06	480339.5	3770380.4	369.0	0.00	3.39	0.85	YES
L0007302	0	0.34010E-06	480332.2	3770380.4	368.7	0.00	3.39	0.85	YES
L0007303	0	0.34010E-06	480325.0	3770380.3	368.5	0.00	3.39	0.85	YES
L0007304	0	0.34010E-06	480317.7	3770380.3	368.3	0.00	3.39	0.85	YES
L0007305	0	0.34010E-06	480310.4	3770380.2	368.0	0.00	3.39	0.85	YES
L0007306	0	0.34010E-06	480303.1	3770380.2	368.0	0.00	3.39	0.85	YES
L0007307	0	0.34010E-06	480295.8	3770380.1	368.0	0.00	3.39	0.85	YES
L0007308	0	0.34010E-06	480288.5	3770380.1	368.0	0.00	3.39	0.85	YES
L0007309	0	0.34010E-06	480281.2	3770380.0	368.0	0.00	3.39	0.85	YES
L0007310	0	0.34010E-06	480273.9	3770380.0	367.8	0.00	3.39	0.85	YES
L0007311	0	0.34010E-06	480266.7	3770379.9	367.6	0.00	3.39	0.85	YES
L0007312	0	0.34010E-06	480259.4	3770379.9	367.3	0.00	3.39	0.85	YES
L0007313	0	0.34010E-06	480252.1	3770379.8	367.1	0.00	3.39	0.85	YES
L0007314	0	0.34010E-06	480244.8	3770379.8	367.0	0.00	3.39	0.85	YES
L0007315	0	0.34010E-06	480237.5	3770379.7	367.0	0.00	3.39	0.85	YES
L0007316	0	0.34010E-06	480230.2	3770379.7	367.0	0.00	3.39	0.85	YES

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ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X Y		BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
			(METERS)	(METERS)						
L0007317	0	0.34010E-06	480222.9	3770379.6	367.0	0.00	3.39	0.85	YES	
L0007318	0	0.34010E-06	480215.6	3770379.6	366.9	0.00	3.39	0.85	YES	
L0007319	0	0.34010E-06	480208.3	3770379.5	366.6	0.00	3.39	0.85	YES	
L0007320	0	0.34010E-06	480201.1	3770379.5	366.4	0.00	3.39	0.85	YES	
L0007321	0	0.34010E-06	480193.8	3770379.4	366.1	0.00	3.39	0.85	YES	
L0007322	0	0.34010E-06	480186.5	3770379.4	366.0	0.00	3.39	0.85	YES	
L0007323	0	0.34010E-06	480179.2	3770379.3	366.0	0.00	3.39	0.85	YES	
L0007324	0	0.34010E-06	480171.9	3770379.3	366.0	0.00	3.39	0.85	YES	
L0007325	0	0.34010E-06	480164.6	3770379.2	366.0	0.00	3.39	0.85	YES	

L0007326	0	0.34010E-06	480157.3	3770379.2	366.0	0.00	3.39	0.85	YES
L0007327	0	0.34010E-06	480150.0	3770379.1	366.0	0.00	3.39	0.85	YES
L0007328	0	0.34010E-06	480142.8	3770379.1	366.0	0.00	3.39	0.85	YES
L0007329	0	0.34010E-06	480135.5	3770379.0	366.0	0.00	3.39	0.85	YES
L0007330	0	0.34010E-06	480128.2	3770379.0	365.9	0.00	3.39	0.85	YES
L0007331	0	0.34010E-06	480120.9	3770378.9	365.7	0.00	3.39	0.85	YES
L0007332	0	0.34010E-06	480113.6	3770378.9	365.5	0.00	3.39	0.85	YES
L0007333	0	0.34010E-06	480106.3	3770378.8	365.2	0.00	3.39	0.85	YES
L0007334	0	0.34010E-06	480099.0	3770378.8	365.0	0.00	3.39	0.85	YES
L0007335	0	0.34010E-06	480091.7	3770378.7	365.0	0.00	3.39	0.85	YES
L0007336	0	0.34010E-06	480084.5	3770378.7	365.0	0.00	3.39	0.85	YES
L0007337	0	0.34010E-06	480077.2	3770378.6	365.0	0.00	3.39	0.85	YES
L0007338	0	0.34010E-06	480069.9	3770378.6	365.0	0.00	3.39	0.85	YES
L0007339	0	0.34010E-06	480062.6	3770378.5	364.8	0.00	3.39	0.85	YES
L0007340	0	0.34010E-06	480055.3	3770378.5	364.5	0.00	3.39	0.85	YES
L0007341	0	0.34010E-06	480048.0	3770378.4	364.3	0.00	3.39	0.85	YES
L0007342	0	0.34010E-06	480040.7	3770378.4	364.0	0.00	3.39	0.85	YES
L0007343	0	0.34010E-06	480033.4	3770378.3	364.0	0.00	3.39	0.85	YES
L0007344	0	0.34010E-06	480026.2	3770378.3	364.0	0.00	3.39	0.85	YES
L0007345	0	0.34010E-06	480018.9	3770378.2	364.0	0.00	3.39	0.85	YES
L0007346	0	0.34010E-06	480011.6	3770378.2	364.0	0.00	3.39	0.85	YES
L0007347	0	0.34010E-06	480004.3	3770378.1	364.0	0.00	3.39	0.85	YES
L0007348	0	0.34010E-06	479997.0	3770378.1	364.0	0.00	3.39	0.85	YES
L0007349	0	0.34010E-06	479989.7	3770378.0	364.0	0.00	3.39	0.85	YES
L0007350	0	0.34010E-06	479982.4	3770377.9	364.0	0.00	3.39	0.85	YES
L0007351	0	0.34010E-06	479975.1	3770377.9	363.8	0.00	3.39	0.85	YES
L0007352	0	0.34010E-06	479967.9	3770377.8	363.6	0.00	3.39	0.85	YES
L0007353	0	0.34010E-06	479960.6	3770377.8	363.4	0.00	3.39	0.85	YES
L0007354	0	0.34010E-06	479953.3	3770377.7	363.1	0.00	3.39	0.85	YES
L0007355	0	0.34010E-06	479946.0	3770377.7	363.0	0.00	3.39	0.85	YES
L0007356	0	0.34010E-06	479938.7	3770377.6	363.0	0.00	3.39	0.85	YES

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ELEV

FASTALL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007357	0	0.34010E-06	479931.4	3770377.6	363.0	0.00	3.39	0.85	YES	
L0007358	0	0.34010E-06	479924.1	3770377.5	363.0	0.00	3.39	0.85	YES	
L0007359	0	0.34010E-06	479916.8	3770377.5	362.9	0.00	3.39	0.85	YES	
L0007360	0	0.34010E-06	479909.6	3770377.4	362.8	0.00	3.39	0.85	YES	
L0007361	0	0.34010E-06	479902.3	3770377.4	362.6	0.00	3.39	0.85	YES	

L0007362	0	0.34010E-06	479895.0	3770377.3	362.4	0.00	3.39	0.85	YES
L0007363	0	0.34010E-06	479887.7	3770377.3	362.3	0.00	3.39	0.85	YES
L0007364	0	0.34010E-06	479880.4	3770377.2	362.2	0.00	3.39	0.85	YES
L0007365	0	0.34010E-06	479873.1	3770377.2	362.1	0.00	3.39	0.85	YES
L0007366	0	0.34010E-06	479865.8	3770377.1	362.1	0.00	3.39	0.85	YES
L0007367	0	0.34010E-06	479858.5	3770377.1	362.0	0.00	3.39	0.85	YES
L0007368	0	0.34010E-06	479851.3	3770377.0	362.0	0.00	3.39	0.85	YES
L0007369	0	0.34010E-06	479844.0	3770377.0	362.0	0.00	3.39	0.85	YES
L0007370	0	0.34010E-06	479836.7	3770376.9	362.0	0.00	3.39	0.85	YES
L0007371	0	0.34010E-06	479829.4	3770376.9	362.0	0.00	3.39	0.85	YES
L0007372	0	0.34010E-06	479822.1	3770376.8	361.7	0.00	3.39	0.85	YES
L0007373	0	0.34010E-06	479814.8	3770376.8	361.5	0.00	3.39	0.85	YES
L0007374	0	0.34010E-06	479807.5	3770376.7	361.2	0.00	3.39	0.85	YES
L0007375	0	0.34010E-06	479800.2	3770376.7	361.0	0.00	3.39	0.85	YES
L0007376	0	0.34010E-06	479793.0	3770376.6	361.0	0.00	3.39	0.85	YES
L0007377	0	0.34010E-06	479785.7	3770376.6	361.0	0.00	3.39	0.85	YES
L0007378	0	0.34010E-06	479778.4	3770376.5	361.0	0.00	3.39	0.85	YES
L0007379	0	0.34010E-06	479771.1	3770376.5	361.0	0.00	3.39	0.85	YES
L0007380	0	0.34010E-06	479763.8	3770376.4	360.8	0.00	3.39	0.85	YES
L0007381	0	0.34010E-06	479756.5	3770376.4	360.6	0.00	3.39	0.85	YES
L0007382	0	0.34010E-06	479749.2	3770376.3	360.3	0.00	3.39	0.85	YES
L0007383	0	0.34010E-06	479741.9	3770376.3	360.1	0.00	3.39	0.85	YES
L0007384	0	0.34010E-06	479734.7	3770376.2	360.0	0.00	3.39	0.85	YES
L0007385	0	0.34010E-06	479727.4	3770376.2	360.0	0.00	3.39	0.85	YES
L0007386	0	0.34010E-06	479720.1	3770376.1	360.0	0.00	3.39	0.85	YES
L0007387	0	0.34010E-06	479712.8	3770376.1	360.0	0.00	3.39	0.85	YES
L0007388	0	0.34010E-06	479705.5	3770376.0	360.0	0.00	3.39	0.85	YES
L0007389	0	0.34010E-06	479698.2	3770376.0	360.0	0.00	3.39	0.85	YES
L0007390	0	0.34010E-06	479690.9	3770375.9	360.0	0.00	3.39	0.85	YES
L0007391	0	0.34010E-06	479683.6	3770375.9	360.0	0.00	3.39	0.85	YES
L0007392	0	0.34010E-06	479676.4	3770375.8	359.9	0.00	3.39	0.85	YES
L0007393	0	0.34010E-06	479669.1	3770375.8	359.6	0.00	3.39	0.85	YES
L0007394	0	0.34010E-06	479661.8	3770375.7	359.4	0.00	3.39	0.85	YES
L0007395	0	0.34010E-06	479654.5	3770375.7	359.2	0.00	3.39	0.85	YES
L0007396	0	0.34010E-06	479647.2	3770375.6	359.0	0.00	3.39	0.85	YES

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**MODELOPTs: NonDEFAULT CONC

ELEV

FASTALL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007397	0	0.34010E-06	479639.9	3770375.6	359.0	0.00	3.39	0.85	YES	

L0007398	0	0.34010E-06	479632.6	3770375.5	359.0	0.00	3.39	0.85	YES
L0007399	0	0.34010E-06	479625.3	3770375.4	359.0	0.00	3.39	0.85	YES
L0007400	0	0.34010E-06	479618.1	3770375.4	359.0	0.00	3.39	0.85	YES
L0007401	0	0.34010E-06	479610.8	3770375.3	359.0	0.00	3.39	0.85	YES
L0007402	0	0.34010E-06	479603.5	3770375.3	359.0	0.00	3.39	0.85	YES
L0007403	0	0.34010E-06	479596.2	3770375.2	359.0	0.00	3.39	0.85	YES
L0007404	0	0.34010E-06	479588.9	3770375.2	359.0	0.00	3.39	0.85	YES
L0007405	0	0.34010E-06	479581.6	3770375.1	358.7	0.00	3.39	0.85	YES
L0007406	0	0.34010E-06	479574.3	3770375.1	358.5	0.00	3.39	0.85	YES
L0007407	0	0.34010E-06	479567.0	3770375.0	358.2	0.00	3.39	0.85	YES
L0007408	0	0.34010E-06	479559.8	3770375.0	358.0	0.00	3.39	0.85	YES
L0007409	0	0.34010E-06	479552.5	3770374.9	358.0	0.00	3.39	0.85	YES
L0007410	0	0.34010E-06	479545.2	3770374.9	358.0	0.00	3.39	0.85	YES
L0007411	0	0.34010E-06	479537.9	3770374.8	358.0	0.00	3.39	0.85	YES
L0007412	0	0.34010E-06	479530.6	3770374.8	358.0	0.00	3.39	0.85	YES
L0007413	0	0.34010E-06	479523.3	3770374.7	358.0	0.00	3.39	0.85	YES
L0007414	0	0.34010E-06	479516.0	3770374.7	358.0	0.00	3.39	0.85	YES
L0007415	0	0.34010E-06	479508.7	3770374.6	358.0	0.00	3.39	0.85	YES
L0007416	0	0.34010E-06	479501.4	3770374.6	358.0	0.00	3.39	0.85	YES
L0007417	0	0.34010E-06	479494.2	3770374.5	357.8	0.00	3.39	0.85	YES
L0007418	0	0.34010E-06	479486.9	3770374.5	357.6	0.00	3.39	0.85	YES
L0007419	0	0.34010E-06	479479.6	3770374.4	357.3	0.00	3.39	0.85	YES
L0007420	0	0.34010E-06	479472.3	3770374.4	357.1	0.00	3.39	0.85	YES
L0007421	0	0.34010E-06	479465.0	3770374.3	357.0	0.00	3.39	0.85	YES
L0007422	0	0.34010E-06	479457.7	3770374.3	357.0	0.00	3.39	0.85	YES
L0007423	0	0.18100E-06	479931.5	3770394.1	363.0	0.00	3.37	0.85	YES
L0007424	0	0.18100E-06	479931.4	3770401.3	363.0	0.00	3.37	0.85	YES
L0007425	0	0.18100E-06	479931.4	3770408.6	363.0	0.00	3.37	0.85	YES
L0007426	0	0.18100E-06	479931.3	3770415.8	363.0	0.00	3.37	0.85	YES
L0007427	0	0.18100E-06	479931.3	3770423.1	363.0	0.00	3.37	0.85	YES
L0007428	0	0.18100E-06	479931.2	3770430.3	363.0	0.00	3.37	0.85	YES
L0007429	0	0.18100E-06	479931.2	3770437.6	363.0	0.00	3.37	0.85	YES
L0007430	0	0.18100E-06	479931.1	3770444.8	363.0	0.00	3.37	0.85	YES
L0007431	0	0.18100E-06	479931.1	3770452.0	363.0	0.00	3.37	0.85	YES
L0007432	0	0.18100E-06	479931.0	3770459.3	363.0	0.00	3.37	0.85	YES
L0007433	0	0.18100E-06	479931.0	3770466.5	363.0	0.00	3.37	0.85	YES
L0007434	0	0.18100E-06	479930.9	3770473.8	363.0	0.00	3.37	0.85	YES
L0007435	0	0.18100E-06	479930.9	3770481.0	363.0	0.00	3.37	0.85	YES
L0007436	0	0.18100E-06	479930.8	3770488.3	363.0	0.00	3.37	0.85	YES

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ELEV

FASTALL

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER PART.	EMISSION RATE (GRAMS/SEC)	X	Y	BASE ELEV.	RELEASE HEIGHT	INIT. SY	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR	VARY
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ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0007437	0	0.18100E-06	479930.8	3770495.5	363.0	0.00	3.37	0.85	YES
L0007438	0	0.18100E-06	479930.7	3770502.8	363.0	0.00	3.37	0.85	YES
L0007439	0	0.18100E-06	479930.7	3770510.0	363.0	0.00	3.37	0.85	YES
L0007440	0	0.18100E-06	479930.6	3770517.3	363.0	0.00	3.37	0.85	YES
L0007441	0	0.18100E-06	479930.6	3770524.5	363.0	0.00	3.37	0.85	YES
L0007442	0	0.18100E-06	479930.5	3770531.8	363.0	0.00	3.37	0.85	YES
L0007443	0	0.18100E-06	479930.5	3770539.0	363.0	0.00	3.37	0.85	YES
L0007444	0	0.18100E-06	479930.4	3770546.3	363.0	0.00	3.37	0.85	YES
L0007445	0	0.18100E-06	479930.4	3770553.5	363.0	0.00	3.37	0.85	YES
L0007446	0	0.18100E-06	479930.3	3770560.8	363.0	0.00	3.37	0.85	YES
L0007447	0	0.18100E-06	479930.3	3770568.0	363.0	0.00	3.37	0.85	YES
L0007448	0	0.18100E-06	479930.2	3770575.3	363.0	0.00	3.37	0.85	YES
L0007449	0	0.18100E-06	479930.2	3770582.5	363.0	0.00	3.37	0.85	YES
L0007450	0	0.18100E-06	479930.1	3770589.8	363.0	0.00	3.37	0.85	YES
L0007451	0	0.18100E-06	479930.1	3770597.0	363.0	0.00	3.37	0.85	YES
L0007452	0	0.18100E-06	479930.0	3770604.3	363.0	0.00	3.37	0.85	YES
L0007453	0	0.18100E-06	479930.0	3770611.5	363.0	0.00	3.37	0.85	YES
L0007454	0	0.18100E-06	479929.9	3770618.7	363.0	0.00	3.37	0.85	YES
L0007455	0	0.18100E-06	479929.9	3770626.0	363.0	0.00	3.37	0.85	YES
L0007456	0	0.18100E-06	479929.8	3770633.2	363.0	0.00	3.37	0.85	YES
L0007457	0	0.18100E-06	479929.8	3770640.5	363.0	0.00	3.37	0.85	YES
L0007458	0	0.18100E-06	479929.7	3770647.7	363.0	0.00	3.37	0.85	YES
L0007459	0	0.18100E-06	479929.7	3770655.0	363.0	0.00	3.37	0.85	YES
L0007460	0	0.18100E-06	479929.6	3770662.2	363.0	0.00	3.37	0.85	YES
L0007461	0	0.18100E-06	479929.6	3770669.5	363.0	0.00	3.37	0.85	YES
L0007462	0	0.18100E-06	479929.5	3770676.7	363.0	0.00	3.37	0.85	YES
L0007463	0	0.18100E-06	479929.5	3770684.0	363.0	0.00	3.37	0.85	YES
L0007464	0	0.18100E-06	479929.4	3770691.2	363.0	0.00	3.37	0.85	YES
L0007465	0	0.18100E-06	479929.4	3770698.5	363.0	0.00	3.37	0.85	YES
L0007466	0	0.18100E-06	479929.3	3770705.7	363.0	0.00	3.37	0.85	YES
L0007467	0	0.18100E-06	479929.3	3770713.0	363.0	0.00	3.37	0.85	YES
L0007468	0	0.18100E-06	479929.2	3770720.2	363.0	0.00	3.37	0.85	YES
L0007469	0	0.18100E-06	479929.2	3770727.5	363.0	0.00	3.37	0.85	YES
L0007470	0	0.18100E-06	479929.1	3770734.7	363.0	0.00	3.37	0.85	YES
L0007471	0	0.18100E-06	479929.0	3770742.0	363.0	0.00	3.37	0.85	YES
L0007472	0	0.18100E-06	479929.0	3770749.2	363.0	0.00	3.37	0.85	YES
L0007473	0	0.18100E-06	479928.9	3770756.5	363.0	0.00	3.37	0.85	YES
L0007474	0	0.18100E-06	479928.9	3770763.7	363.0	0.00	3.37	0.85	YES
L0007475	0	0.13060E-06	479930.4	3770778.7	363.0	0.00	3.38	0.85	YES
L0007476	0	0.13060E-06	479937.7	3770778.7	363.0	0.00	3.38	0.85	YES

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**MODELOPTs: NonDEFAULT CONC

ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007477	0	0.13060E-06	479944.9	3770778.8	363.0	0.00	3.38	0.85	YES	
L0007478	0	0.13060E-06	479952.2	3770778.9	363.1	0.00	3.38	0.85	YES	
L0007479	0	0.13060E-06	479959.5	3770778.9	363.3	0.00	3.38	0.85	YES	
L0007480	0	0.13060E-06	479966.8	3770779.0	363.6	0.00	3.38	0.85	YES	
L0007481	0	0.13060E-06	479974.0	3770779.0	363.8	0.00	3.38	0.85	YES	
L0007482	0	0.13060E-06	479981.3	3770779.1	364.0	0.00	3.38	0.85	YES	
L0007483	0	0.13060E-06	479988.6	3770779.1	364.0	0.00	3.38	0.85	YES	
L0007484	0	0.13060E-06	479995.9	3770779.2	364.0	0.00	3.38	0.85	YES	
L0007485	0	0.13060E-06	480003.1	3770779.3	364.0	0.00	3.38	0.85	YES	
L0007486	0	0.13060E-06	480010.4	3770779.3	364.0	0.00	3.38	0.85	YES	
L0007487	0	0.13060E-06	480017.7	3770779.4	364.2	0.00	3.38	0.85	YES	
L0007488	0	0.13060E-06	480025.0	3770779.4	364.4	0.00	3.38	0.85	YES	
L0007489	0	0.13060E-06	480032.2	3770779.5	364.7	0.00	3.38	0.85	YES	
L0007490	0	0.13060E-06	480039.5	3770779.6	364.9	0.00	3.38	0.85	YES	
L0007491	0	0.13060E-06	480046.8	3770779.6	364.9	0.00	3.38	0.85	YES	
L0007492	0	0.13060E-06	480054.1	3770779.7	364.9	0.00	3.38	0.85	YES	
L0007493	0	0.13060E-06	480061.3	3770779.7	365.0	0.00	3.38	0.85	YES	
L0007494	0	0.13060E-06	480068.6	3770779.8	365.0	0.00	3.38	0.85	YES	
L0007495	0	0.13060E-06	480075.9	3770779.8	365.2	0.00	3.38	0.85	YES	
L0007496	0	0.13060E-06	480083.1	3770779.9	365.4	0.00	3.38	0.85	YES	
L0007497	0	0.13060E-06	480090.4	3770780.0	365.6	0.00	3.38	0.85	YES	
L0007498	0	0.13060E-06	480097.7	3770780.0	365.8	0.00	3.38	0.85	YES	
L0007499	0	0.13060E-06	480105.0	3770780.1	365.9	0.00	3.38	0.85	YES	
L0007500	0	0.13060E-06	480112.2	3770780.1	365.9	0.00	3.38	0.85	YES	
L0007501	0	0.13060E-06	480119.5	3770780.2	366.0	0.00	3.38	0.85	YES	
L0007502	0	0.13060E-06	480126.8	3770780.2	366.0	0.00	3.38	0.85	YES	
L0007503	0	0.13060E-06	480134.1	3770780.3	366.0	0.00	3.38	0.85	YES	
L0007504	0	0.13060E-06	480141.3	3770780.4	366.0	0.00	3.38	0.85	YES	
L0007505	0	0.13060E-06	480148.6	3770780.4	366.0	0.00	3.38	0.85	YES	
L0007506	0	0.13060E-06	480155.9	3770780.5	366.0	0.00	3.38	0.85	YES	
L0007507	0	0.13060E-06	480163.2	3770780.5	366.1	0.00	3.38	0.85	YES	
L0007508	0	0.13060E-06	480170.4	3770780.6	366.4	0.00	3.38	0.85	YES	
L0007509	0	0.13060E-06	480177.7	3770780.6	366.6	0.00	3.38	0.85	YES	
L0007510	0	0.13060E-06	480185.0	3770780.7	366.8	0.00	3.38	0.85	YES	
L0007511	0	0.13060E-06	480192.3	3770780.8	367.0	0.00	3.38	0.85	YES	
L0007512	0	0.13060E-06	480199.5	3770780.8	367.0	0.00	3.38	0.85	YES	
L0007513	0	0.13060E-06	480206.8	3770780.9	367.0	0.00	3.38	0.85	YES	
L0007514	0	0.13060E-06	480214.1	3770780.9	367.0	0.00	3.38	0.85	YES	
L0007515	0	0.13060E-06	480221.3	3770781.0	367.0	0.00	3.38	0.85	YES	
L0007516	0	0.13060E-06	480228.6	3770781.0	367.0	0.00	3.38	0.85	YES	

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**MODELOPTs: NonDEFAULT CONC

ELEV

FASTALL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007517	0	0.13060E-06	480235.9	3770781.1	367.0	0.00	3.38	0.85	YES	
L0007518	0	0.13060E-06	480243.2	3770781.2	367.0	0.00	3.38	0.85	YES	
L0007519	0	0.13060E-06	480250.4	3770781.2	367.0	0.00	3.38	0.85	YES	
L0007520	0	0.13060E-06	480257.7	3770781.3	367.3	0.00	3.38	0.85	YES	
L0007521	0	0.13060E-06	480265.0	3770781.3	367.5	0.00	3.38	0.85	YES	
L0007522	0	0.13060E-06	480272.3	3770781.4	367.8	0.00	3.38	0.85	YES	
L0007523	0	0.13060E-06	480279.5	3770781.4	368.0	0.00	3.38	0.85	YES	
L0007524	0	0.13060E-06	480286.8	3770781.5	368.0	0.00	3.38	0.85	YES	
L0007525	0	0.13060E-06	480294.1	3770781.6	368.0	0.00	3.38	0.85	YES	
L0007526	0	0.13060E-06	480301.4	3770781.6	368.0	0.00	3.38	0.85	YES	
L0007527	0	0.13060E-06	480308.6	3770781.7	368.0	0.00	3.38	0.85	YES	
L0007528	0	0.13060E-06	480315.9	3770781.7	368.0	0.00	3.38	0.85	YES	
L0007529	0	0.13060E-06	480323.2	3770781.8	368.0	0.00	3.38	0.85	YES	
L0007530	0	0.13060E-06	480330.5	3770781.9	368.0	0.00	3.38	0.85	YES	
L0007531	0	0.13060E-06	480337.7	3770781.9	368.0	0.00	3.38	0.85	YES	
L0007532	0	0.13060E-06	480345.0	3770782.0	368.2	0.00	3.38	0.85	YES	
L0007533	0	0.13060E-06	480352.3	3770782.0	368.4	0.00	3.38	0.85	YES	
L0007534	0	0.13060E-06	480359.5	3770782.1	368.7	0.00	3.38	0.85	YES	
L0007535	0	0.13060E-06	480366.8	3770782.1	368.9	0.00	3.38	0.85	YES	
L0007536	0	0.13060E-06	480374.1	3770782.2	369.0	0.00	3.38	0.85	YES	
L0007537	0	0.13060E-06	480381.4	3770782.3	369.0	0.00	3.38	0.85	YES	
L0007538	0	0.13060E-06	480388.6	3770782.3	369.0	0.00	3.38	0.85	YES	
L0007539	0	0.13060E-06	480395.9	3770782.4	369.0	0.00	3.38	0.85	YES	
L0007540	0	0.13060E-06	480403.2	3770782.4	369.1	0.00	3.38	0.85	YES	
L0007541	0	0.13060E-06	480410.5	3770782.5	369.4	0.00	3.38	0.85	YES	
L0007542	0	0.13060E-06	480417.7	3770782.5	369.6	0.00	3.38	0.85	YES	
L0007543	0	0.13060E-06	480425.0	3770782.6	369.8	0.00	3.38	0.85	YES	
L0007544	0	0.13060E-06	480432.3	3770782.7	370.0	0.00	3.38	0.85	YES	
L0007545	0	0.13060E-06	480439.6	3770782.7	370.0	0.00	3.38	0.85	YES	
L0007546	0	0.13060E-06	480446.8	3770782.8	370.0	0.00	3.38	0.85	YES	
L0007547	0	0.13060E-06	480454.1	3770782.8	370.0	0.00	3.38	0.85	YES	
L0007548	0	0.13060E-06	480461.4	3770782.9	370.0	0.00	3.38	0.85	YES	
L0007549	0	0.13060E-06	480468.7	3770782.9	370.0	0.00	3.38	0.85	YES	
L0007550	0	0.13060E-06	480475.9	3770783.0	370.0	0.00	3.38	0.85	YES	
L0007551	0	0.13060E-06	480483.2	3770783.1	370.0	0.00	3.38	0.85	YES	
L0007552	0	0.13060E-06	480490.5	3770783.1	370.0	0.00	3.38	0.85	YES	
L0007553	0	0.13060E-06	480497.7	3770783.2	370.3	0.00	3.38	0.85	YES	
L0007554	0	0.13060E-06	480505.0	3770783.2	370.5	0.00	3.38	0.85	YES	
L0007555	0	0.13060E-06	480512.3	3770783.3	370.8	0.00	3.38	0.85	YES	
L0007556	0	0.13060E-06	480519.6	3770783.3	371.0	0.00	3.38	0.85	YES	

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**MODELOPTs: NonDEFAULT CONC

ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007557	0	0.13060E-06	480526.8	3770783.4	371.0	0.00	3.38	0.85	YES	
L0007558	0	0.13060E-06	480534.1	3770783.5	371.0	0.00	3.38	0.85	YES	
L0007559	0	0.13060E-06	480541.4	3770783.5	371.0	0.00	3.38	0.85	YES	
L0007560	0	0.13060E-06	480548.7	3770783.6	371.0	0.00	3.38	0.85	YES	
L0007561	0	0.13060E-06	480555.9	3770783.6	371.2	0.00	3.38	0.85	YES	
L0007562	0	0.13060E-06	480563.2	3770783.7	371.4	0.00	3.38	0.85	YES	
L0007563	0	0.13060E-06	480570.5	3770783.8	371.7	0.00	3.38	0.85	YES	
L0007564	0	0.13060E-06	480577.8	3770783.8	371.9	0.00	3.38	0.85	YES	
L0007565	0	0.13060E-06	480585.0	3770783.9	372.0	0.00	3.38	0.85	YES	
L0007566	0	0.13060E-06	480592.3	3770783.9	372.0	0.00	3.38	0.85	YES	
L0007567	0	0.13060E-06	480599.6	3770784.0	372.0	0.00	3.38	0.85	YES	
L0007568	0	0.13060E-06	480606.9	3770784.0	372.0	0.00	3.38	0.85	YES	
L0007569	0	0.13060E-06	480614.1	3770784.1	372.0	0.00	3.38	0.85	YES	
L0007570	0	0.13060E-06	480621.4	3770784.2	372.0	0.00	3.38	0.85	YES	
L0007571	0	0.13060E-06	480628.7	3770784.2	372.0	0.00	3.38	0.85	YES	
L0007572	0	0.13060E-06	480636.0	3770784.3	372.0	0.00	3.38	0.85	YES	
L0007573	0	0.13060E-06	480643.2	3770784.3	372.1	0.00	3.38	0.85	YES	
L0007574	0	0.13060E-06	480650.5	3770784.4	372.4	0.00	3.38	0.85	YES	
L0007575	0	0.13060E-06	480657.8	3770784.4	372.6	0.00	3.38	0.85	YES	
L0007576	0	0.13060E-06	480665.0	3770784.5	372.8	0.00	3.38	0.85	YES	
L0007577	0	0.13060E-06	480672.3	3770784.6	373.0	0.00	3.38	0.85	YES	
L0007578	0	0.13060E-06	480679.6	3770784.6	373.0	0.00	3.38	0.85	YES	
L0007579	0	0.13060E-06	480686.9	3770784.7	373.0	0.00	3.38	0.85	YES	
L0007580	0	0.13060E-06	480694.1	3770784.7	373.0	0.00	3.38	0.85	YES	
L0007581	0	0.13060E-06	480701.4	3770784.8	373.1	0.00	3.38	0.85	YES	
L0007582	0	0.13060E-06	480708.7	3770784.8	373.3	0.00	3.38	0.85	YES	
L0007583	0	0.13060E-06	480716.0	3770784.9	373.5	0.00	3.38	0.85	YES	
L0007584	0	0.13060E-06	480723.2	3770785.0	373.8	0.00	3.38	0.85	YES	
L0007585	0	0.13060E-06	480730.5	3770785.0	374.0	0.00	3.38	0.85	YES	

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**MODELOPTs: NonDEFAULT CONC

ELEV

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs								
ALL	STCK1	, L0000001	, L0000002	, L0000003	, L0000004	, L0000005	, L0000006	, L0000007	,
	L0000008	, L0000009	, L0000010	, L0000011	, L0000012	, L0000013	, L0000014	, L0000015	,
	L0000016	, L0000017	, L0000018	, L0000019	, L0000020	, L0000021	, L0000022	, L0000023	,
	L0000024	, L0000025	, L0000026	, L0000027	, L0000028	, L0000029	, L0000030	, L0000031	,
	L0000032	, L0000033	, L0000034	, L0000035	, L0000036	, L0000037	, L0000038	, L0000039	,
	L0007236	, L0007237	, L0007238	, L0007239	, L0007240	, L0007241	, L0007242	, L0007243	,
	L0007244	, L0007245	, L0007246	, L0007247	, L0007248	, L0007249	, L0007250	, L0007251	,
	L0007252	, L0007253	, L0007254	, L0007255	, L0007256	, L0007257	, L0007258	, L0007259	,
	L0007260	, L0007261	, L0007262	, L0007263	, L0007264	, L0007265	, L0007266	, L0007267	,
	L0007268	, L0007269	, L0007270	, L0007271	, L0007272	, L0007273	, L0007274	, L0007275	,
	L0007276	, L0007277	, L0007278	, L0007279	, L0007280	, L0007281	, L0007282	, L0007283	,
	L0007284	, L0007285	, L0007286	, L0007287	, L0007288	, L0007289	, L0007290	, L0007291	,
	L0007292	, L0007293	, L0007294	, L0007295	, L0007296	, L0007297	, L0007298	, L0007299	,
	L0007300	, L0007301	, L0007302	, L0007303	, L0007304	, L0007305	, L0007306	, L0007307	,
	L0007308	, L0007309	, L0007310	, L0007311	, L0007312	, L0007313	, L0007314	, L0007315	,
	L0007316	, L0007317	, L0007318	, L0007319	, L0007320	, L0007321	, L0007322	, L0007323	,
	L0007324	, L0007325	, L0007326	, L0007327	, L0007328	, L0007329	, L0007330	, L0007331	,
	L0007332	, L0007333	, L0007334	, L0007335	, L0007336	, L0007337	, L0007338	, L0007339	,
	L0007340	, L0007341	, L0007342	, L0007343	, L0007344	, L0007345	, L0007346	, L0007347	,
	L0007348	, L0007349	, L0007350	, L0007351	, L0007352	, L0007353	, L0007354	, L0007355	,

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ELEV

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

L0007356 , L0007357 , L0007358 , L0007359 , L0007360 , L0007361 , L0007362 , L0007363 ,
L0007364 , L0007365 , L0007366 , L0007367 , L0007368 , L0007369 , L0007370 , L0007371 ,
L0007372 , L0007373 , L0007374 , L0007375 , L0007376 , L0007377 , L0007378 , L0007379 ,
L0007380 , L0007381 , L0007382 , L0007383 , L0007384 , L0007385 , L0007386 , L0007387 ,
L0007388 , L0007389 , L0007390 , L0007391 , L0007392 , L0007393 , L0007394 , L0007395 ,
L0007396 , L0007397 , L0007398 , L0007399 , L0007400 , L0007401 , L0007402 , L0007403 ,
L0007404 , L0007405 , L0007406 , L0007407 , L0007408 , L0007409 , L0007410 , L0007411 ,
L0007412 , L0007413 , L0007414 , L0007415 , L0007416 , L0007417 , L0007418 , L0007419 ,
L0007420 , L0007421 , L0007422 , L0007423 , L0007424 , L0007425 , L0007426 , L0007427 ,
L0007428 , L0007429 , L0007430 , L0007431 , L0007432 , L0007433 , L0007434 , L0007435 ,
L0007436 , L0007437 , L0007438 , L0007439 , L0007440 , L0007441 , L0007442 , L0007443 ,
L0007444 , L0007445 , L0007446 , L0007447 , L0007448 , L0007449 , L0007450 , L0007451 ,
L0007452 , L0007453 , L0007454 , L0007455 , L0007456 , L0007457 , L0007458 , L0007459 ,
L0007460 , L0007461 , L0007462 , L0007463 , L0007464 , L0007465 , L0007466 , L0007467 ,
L0007468 , L0007469 , L0007470 , L0007471 , L0007472 , L0007473 , L0007474 , L0007475 ,
L0007476 , L0007477 , L0007478 , L0007479 , L0007480 , L0007481 , L0007482 , L0007483 ,
L0007484 , L0007485 , L0007486 , L0007487 , L0007488 , L0007489 , L0007490 , L0007491 ,
L0007492 , L0007493 , L0007494 , L0007495 , L0007496 , L0007497 , L0007498 , L0007499 ,
L0007500 , L0007501 , L0007502 , L0007503 , L0007504 , L0007505 , L0007506 , L0007507 ,
L0007508 , L0007509 , L0007510 , L0007511 , L0007512 , L0007513 , L0007514 , L0007515 ,

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

L0007516 , L0007517 , L0007518 , L0007519 , L0007520 , L0007521 , L0007522 , L0007523 ,
L0007524 , L0007525 , L0007526 , L0007527 , L0007528 , L0007529 , L0007530 , L0007531 ,
L0007532 , L0007533 , L0007534 , L0007535 , L0007536 , L0007537 , L0007538 , L0007539 ,
L0007540 , L0007541 , L0007542 , L0007543 , L0007544 , L0007545 , L0007546 , L0007547 ,
L0007548 , L0007549 , L0007550 , L0007551 , L0007552 , L0007553 , L0007554 , L0007555 ,
L0007556 , L0007557 , L0007558 , L0007559 , L0007560 , L0007561 , L0007562 , L0007563 ,
L0007564 , L0007565 , L0007566 , L0007567 , L0007568 , L0007569 , L0007570 , L0007571 ,
L0007572 , L0007573 , L0007574 , L0007575 , L0007576 , L0007577 , L0007578 , L0007579 ,
L0007580 , L0007581 , L0007582 , L0007583 , L0007584 , L0007585 ,

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*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	12.2,	499.9,	222.7,	-55.2,	19.4,	2	12.2,	501.2,	297.9,	-97.1,	28.7,
3	12.2,	487.2,	364.1,	-136.1,	37.1,	4	12.2,	458.4,	419.1,	-170.9,	44.4,
5	12.2,	415.7,	461.5,	-200.5,	50.3,	6	12.2,	360.4,	489.8,	-224.1,	54.7,
7	12.2,	294.1,	503.2,	-240.8,	57.4,	8	12.2,	218.8,	501.4,	-250.2,	58.4,
9	12.2,	140.8,	484.3,	-252.1,	58.8,	10	12.2,	222.7,	499.9,	-269.4,	56.2,
11	12.2,	297.9,	501.2,	-279.3,	51.9,	12	12.2,	364.1,	487.2,	-280.7,	46.0,
13	12.2,	419.1,	458.4,	-273.6,	38.7,	14	12.2,	461.5,	415.7,	-258.2,	30.2,
15	12.2,	489.8,	360.4,	-234.9,	20.8,	16	12.2,	503.2,	294.1,	-204.5,	10.8,
17	12.2,	501.4,	218.8,	-167.9,	0.5,	18	12.2,	484.3,	140.8,	-129.2,	-9.9,
19	12.2,	499.9,	222.7,	-167.6,	-19.4,	20	12.2,	501.2,	297.9,	-200.8,	-28.7,
21	12.2,	487.2,	364.1,	-228.0,	-37.1,	22	12.2,	458.4,	419.1,	-248.2,	-44.4,
23	12.2,	415.7,	461.5,	-260.9,	-50.3,	24	12.2,	360.4,	489.8,	-265.7,	-54.7,
25	12.2,	294.1,	503.2,	-262.4,	-57.4,	26	12.2,	218.8,	501.4,	-251.1,	-58.4,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\..\Met data\SNBO2.SFC
Profile file: ..\..\..\Met data\SNBO2.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 0
Name: 474.76
Year: 2005

Met Version: 11059

Upper air station no.: 3190
Name: UNKNOWN
Year: 2005

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
05	01	01	1	01	-0.2	0.017	-9.000	-9.000	-999.	5.	1.9	0.36	1.00	1.00	1.00	0.28	81.	9.1	279.2	5.5		
05	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.36	1.00	1.00	999.00	999.	-9.0	279.9	5.5			
05	01	01	1	03	-0.2	0.017	-9.000	-9.000	-999.	5.	1.9	0.36	1.00	1.00	0.28	94.	9.1	278.8	5.5			
05	01	01	1	04	-0.2	0.017	-9.000	-9.000	-999.	5.	2.2	0.36	1.00	1.00	0.28	43.	9.1	278.8	5.5			
05	01	01	1	05	-0.2	0.017	-9.000	-9.000	-999.	5.	2.6	0.36	1.00	1.00	0.28	20.	9.1	278.8	5.5			
05	01	01	1	06	-0.2	0.019	-9.000	-9.000	-999.	6.	2.8	0.36	1.00	1.00	0.30	69.	9.1	278.8	5.5			
05	01	01	1	07	-0.6	0.031	-9.000	-9.000	-999.	12.	4.6	0.36	1.00	1.00	0.50	46.	9.1	278.8	5.5			
05	01	01	1	08	-0.2	0.019	-9.000	-9.000	-999.	6.	2.3	0.36	1.00	0.52	0.30	157.	9.1	279.2	5.5			
05	01	01	1	09	30.3	0.078	0.394	0.005	70.	51.	-1.4	0.36	1.00	0.31	0.30	22.	9.1	280.4	5.5			
05	01	01	1	10	79.7	0.161	1.204	0.005	764.	149.	-4.6	0.36	1.00	0.24	0.80	17.	9.1	283.1	5.5			
05	01	01	1	11	120.6	0.128	1.527	0.007	1029.	106.	-1.5	0.36	1.00	0.21	0.50	113.	9.1	285.4	5.5			
05	01	01	1	12	133.4	0.222	1.674	0.009	1228.	240.	-7.1	0.36	1.00	0.20	1.20	192.	9.1	284.2	5.5			
05	01	01	1	13	81.5	0.198	1.428	0.009	1246.	203.	-8.3	0.36	1.00	0.20	1.10	190.	9.1	285.4	5.5			
05	01	01	1	14	81.2	0.090	1.433	0.009	1264.	68.	-1.0	0.36	1.00	0.22	0.30	354.	9.1	285.4	5.5			
05	01	01	1	15	36.7	0.122	1.102	0.009	1272.	99.	-4.4	0.36	1.00	0.25	0.60	14.	9.1	284.9	5.5			
05	01	01	1	16	0.8	0.061	0.314	0.009	1272.	36.	-23.8	0.36	1.00	0.34	0.40	359.	9.1	284.2	5.5			
05	01	01	1	17	0.2	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.36	1.00	0.63	999.00	999.	-9.0	283.8	5.5			
05	01	01	1	18	-0.4	0.025	-9.000	-9.000	-999.	9.	3.7	0.36	1.00	1.00	0.40	261.	9.1	283.1	5.5			
05	01	01	1	19	-2.7	0.068	-9.000	-9.000	-999.	41.	10.2	0.36	1.00	1.00	1.10	224.	9.1	282.5	5.5			
05	01	01	1	20	-1.4	0.049	-9.000	-9.000	-999.	25.	7.4	0.36	1.00	1.00	0.80	207.	9.1	282.5	5.5			
05	01	01	1	21	-1.5	0.043	-9.000	-9.000	-999.	21.	4.8	0.36	1.00	1.00	0.70	88.	9.1	282.0	5.5			
05	01	01	1	22	-0.3	0.019	-9.000	-9.000	-999.	6.	2.0	0.36	1.00	1.00	0.30	97.	9.1	280.9	5.5			
05	01	01	1	23	-0.6	0.031	-9.000	-9.000	-999.	12.	4.0	0.36	1.00	1.00	0.50	52.	9.1	279.9	5.5			
05	01	01	1	24	-0.2	0.017	-9.000	-9.000	-999.	5.	2.2	0.36	1.00	1.00	0.28	73.	9.1	279.2	5.5			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05	01	01	01	5.5	0	-999.	-99.00	279.3	99.0	-99.00	-99.00
05	01	01	01	9.1	1	81.	0.10	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

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*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): STCK1 , L0000001 , L0000002 , L0000003 , L0000004 ,

L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 ,

L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 ,

L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
480158.00	3770598.00	0.00262	480390.00	3770641.00	0.00414
480613.00	3770734.00	0.00182	480552.00	3770362.00	0.00213
480223.00	3770160.00	0.00148	479911.00	3770454.00	0.00530
479848.00	3770833.00	0.00109	480165.00	3770832.00	0.00202

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ELEV

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*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 3 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 0.00530 AT (	479911.00, 3770454.00,	362.70, 362.70, 0.00)	DC
	2ND HIGHEST VALUE IS 0.00414 AT (	480390.00, 3770641.00,	369.00, 369.00, 0.00)	DC
	3RD HIGHEST VALUE IS 0.00262 AT (	480158.00, 3770598.00,	366.00, 366.00, 0.00)	DC
	4TH HIGHEST VALUE IS 0.00213 AT (	480552.00, 3770362.00,	372.00, 372.00, 0.00)	DC
	5TH HIGHEST VALUE IS 0.00202 AT (	480165.00, 3770832.00,	366.02, 366.02, 0.00)	DC
	6TH HIGHEST VALUE IS 0.00182 AT (	480613.00, 3770734.00,	372.00, 372.00, 0.00)	DC
	7TH HIGHEST VALUE IS 0.00148 AT (	480223.00, 3770160.00,	368.00, 368.00, 0.00)	DC
	8TH HIGHEST VALUE IS 0.00109 AT (	479848.00, 3770833.00,	362.00, 362.00, 0.00)	DC
	9TH HIGHEST VALUE IS 0.00000 AT (	0.00, 0.00,	0.00, 0.00, 0.00)	
	10TH HIGHEST VALUE IS 0.00000 AT (	0.00, 0.00,	0.00, 0.00, 0.00)	

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

EMFAC2011 for San Bernardino County (SC) PM10 Running Exha Averages at bottom of sheet

Area	Season	Veh	Fuel	ModYr	Speed (Miles/hr)	2015 (gms/mile)	2016 (gms/mile)	2017 (gms/mile)	2018 (gms/mile)	2019 (gms/mile)	2020 (gms/mile)	2021 (gms/mile)	2022 (gms/mile)	2023 (gms/mile)	2024 (gms/mile)	2025 (gms/mile)	2026 (gms/mile)	2027 (gms/mile)	2028 (gms/mile)	2029 (gms/mile)	2030 (gms/mile)	2031 (gms/mile)	2032 (gms/mile)	2033 (gms/mile)	2034 (gms/mile)	2035 (gms/mile)			
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	5	0.0106813	0.0104234	0.0103854	0.010502234	0.0107367	0.0110349	0.0113455	0.011663	0.011968	0.012256	0.0125463	0.0128304	0.0130812	0.0132952	0.0134669	0.0136	0.013698289	0.0137675	0.013813723	0.0138552	0.013837084			
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	5	0.086408	0.0720703	0.0663259	0.061448577	0.04366506	0.0373228	0.0328179	0.028569	0.024792	0.021389	0.0190747	0.01693781	0.01516701	0.0138593	0.0130579	0.012485	0.012189441	0.0118801	0.0117079	0.01155272	0.011399999			
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	10	0.0068387	0.00665995	0.00661534	0.00671253	0.00680483	0.006988	0.0071779	0.007372	0.007558	0.007735	0.0079147	0.0080903	0.0082499	0.0084036	0.0085569	0.0087125	0.0088695	0.0090277	0.0091861	0.0093455	0.0095049	0.0096643		
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	10	0.0761361	0.0634755	0.0542515	0.045192398	0.0380054	0.0329572	0.286901	0.0164473	0.01461442	0.0130379	0.0118588	0.0111741	0.010664	0.01039385	0.010124	0.00996324	0.0097985	0.0096345	0.0094705	0.0093072	0.0091438	0.0089805		
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	15	0.0046166	0.00448469	0.00442265	0.004499375	0.00455322	0.0046676	0.00479	0.004915	0.005035	0.005148	0.0052636	0.00537957	0.00548189	0.0055869	0.0056837	0.0057812	0.0058795	0.0059777	0.0060761	0.0061745	0.0062729	0.0063713		
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	15	0.0620236	0.0511104	0.0418077	0.035585114	0.03009496	0.0258441	0.2244335	0.014442	0.016776	0.0126861	0.01122477	0.00999664	0.0090493	0.0084006	0.008072	0.0077639	0.0074561	0.0071483	0.0068406	0.0065329	0.0062252	0.0059175		
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	20	0.0032845	0.00318319	0.0031453	0.003156982	0.00321081	0.0032876	0.0033709	0.003456	0.0035357	0.0036161	0.0036931	0.0037737	0.0038544	0.0039347	0.0040145	0.0040942	0.004174	0.0042538	0.0043336	0.0044134	0.0044932	0.004573		
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	20	0.0487695	0.04057317	0.03585611	0.0277438	0.02431802	0.0206603	0.0180964	0.015657	0.013489	0.011536	0.0101654	0.00897749	0.0079525	0.007209	0.0067462	0.006414	0.00623906	0.0060582	0.0058827	0.0057191	0.0055545	0.0053899		
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	25	0.0024616	0.00238063	0.00234678	0.002350489	0.00238688	0.0024414	0.0025012	0.002563	0.002621	0.0026765	0.0027328	0.00279172	0.0028436	0.0028976	0.0029522	0.0030073	0.0030628	0.0031183	0.0031738	0.0032293	0.0032848	0.0033403	0.0033958	
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	25	0.0404674	0.0336705	0.02810041	0.023386584	0.02019135	0.0173244	0.0150328	0.01301	0.0121	0.00993	0.0084573	0.0074238	0.00662652	0.0060062	0.0055268	0.005047	0.0046134	0.0042245	0.0038801	0.0035357	0.0031913	0.0028469	0.0025025	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	30	0.0019426	0.00187528	0.00184474	0.001844161	0.00187014	0.001911	0.0019659	0.002003	0.002047	0.002088	0.0021325	0.00217908	0.00222622	0.0022733	0.0023204	0.0023675	0.0024146	0.0024617	0.0025088	0.0025559	0.002603	0.0026501	0.0026972	
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	30	0.0343861	0.02846081	0.02329456	0.02035834	0.0172381	0.0148051	0.0128671	0.011157	0.009636	0.008267	0.0073064	0.0064737	0.00575844	0.0052341	0.0491027	0.004678	0.00455685	0.0044306	0.004307	0.0041842	0.0040615	0.0039388	0.0038161	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	35	0.0016138	0.00155547	0.00152475	0.001524395	0.0015406	0.0015786	0.0016131	0.001651	0.001696	0.0017418	0.0017871	0.0018324	0.0018777	0.001923	0.0019683	0.0020134	0.0020585	0.0021036	0.0021487	0.0021938	0.0022389	0.002284	0.0023291	0.0023742
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	35	0.0295541	0.02497868	0.02090293	0.017222064	0.01512073	0.013027	0.0113556	0.009881	0.00857	0.007398	0.0065604	0.00584288	0.00525398	0.0047742	0.0044958	0.004297	0.0041933	0.0040864	0.004024018	0.00397256	0.00392155	0.00387044	0.00381933	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	40	0.0014109	0.00135827	0.00133179	0.001327804	0.00134031	0.0013707	0.0014018	0.001434	0.001465	0.001497	0.0015283	0.0015584	0.0015885	0.0016187	0.0016489	0.0016791	0.0017093	0.0017395	0.0017697	0.0017999	0.0018301	0.0018603	0.0018905	
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	40	0.0267385	0.02234839	0.01875362	0.016038673	0.01365846	0.0118156	0.0103464	0.00905	0.00798	0.006859	0.006123	0.00550197	0.00496103	0.0044536	0.0040423	0.0037291	0.0034159	0.0031027	0.0027895	0.0024763	0.0021631	0.00185	0.0015369	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	45	0.001298	0.00124849	0.0012277	0.001212744	0.00123109	0.001257	0.0012838	0.001313	0.001339	0.001365	0.0013926	0.0014222	0.0014481	0.0014743	0.0015008	0.0015274	0.001554	0.0015809	0.0016075	0.0016341	0.0016607	0.0016873	0.0017139	
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	45	0.024483	0.02053112	0.01729723	0.014857933	0.0127198	0.011067	0.0095721	0.008252	0.007063	0.0059814	0.00504791	0.00433326	0.00381791	0.00340352	0.0030891	0.0028746	0.0026601	0.0024456	0.0022311	0.0020166	0.0018021	0.0015876	0.0013731	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	50	0.0012565	0.00120792	0.00118213	0.00117608	0.0011818	0.0012123	0.0012391	0.001267	0.0012952	0.001323	0.0013513	0.0013793	0.0014074	0.0014355	0.0014636	0.0014917	0.0015198	0.0015479	0.001576	0.0016041	0.0016322	0.0016603	0.0016884	
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	50	0.0230208	0.0193942	0.01642927	0.014197024	0.01224094	0.0107324	0.0095358	0.008481	0.007542	0.006695	0.0059106	0.0052495	0.0046834	0.0042052	0.003727	0.003249	0.002771	0.002293	0.001815	0.001337	0.000859	0.000381	0.0003028	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	55	0.0012799	0.00123019	0.00120342	0.001196762	0.00120942	0.0012332	0.0012606	0.001288	0.001314	0.001338	0.001363	0.001386	0.001412	0.001433	0.001455	0.001477	0.001498	0.001519	0.00154	0.001561	0.001582	0.001603	0.001624	0.001645
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	55	0.0222646	0.018876	0.01582033	0.014032036	0.0122125	0.0108141	0.0097098	0.008737	0.007811	0.007008	0.006345	0.005749	0.005206	0.004714	0.004271	0.003878	0.003535	0.003242	0.002999	0.002756	0.002513	0.00227	0.002028	
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	60	0.0012721	0.00131897	0.00129018	0.001282919	0.00129654	0.0013222	0.0013517	0.001382	0.001409	0.001435	0.001465	0.001491	0.0015212	0.001548	0.001575	0.001602	0.001629	0.001656	0.001683	0.00171	0.001737	0.001764	0.001791	0.001818
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	60	0.0232204	0.0198475	0.0163286	0.014402269	0.01289803	0.0113739	0.0103447	0.009438	0.008623	0.007901	0.0073993	0.00698237	0.00658476	0.006192	0.005811	0.005439	0.005076	0.004722	0.004377	0.004032	0.003687	0.003342	0.003029	0.002716
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	65	0.0015483	0.00149504	0.00146594	0.001460338	0.00147643	0.0015029	0.0015304	0.0015579	0.0015854	0.0016129	0.0016404	0.0016679	0.0016954	0.0017229	0.0017504	0.0017779	0.0018054	0.0018329	0.0018604	0.0018879	0.0019154	0.0019429	0.0019704	0.0019979
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	65	0.0229084	0.01981345	0.0172992	0.015430828	0.01379692	0.0125579	0.0115962	0.010751	0.009997	0.009313	0.008746	0.008284	0.007822	0.00736	0.006908	0.006456	0.006004	0.005552	0.0051	0.004648	0.004196	0.003744	0.003292	0.00284
San Bernardino (SC)	Annual	LDA	GAS	AIIMYr	70	0.0015802	0.0015273	0.00150023	0.00149368	0.00150824	0.0015347	0.0015612	0.0015877	0.0016142	0.0016407	0.0016672	0.0016937	0.0017202	0.0017467	0.0017732	0.0017997	0.0018262	0.0018527	0.0018792	0.0019057	0.0019322	0.0019587	0.0019852	0.0020117
San Bernardino (SC)	Annual	LDA	DSL	AIIMYr	70	0.0237828	0.02244756	0.0212693	0.020259083	0.01953481	0.018791	0.0182193	0.01774	0.017227	0.01676	0.0163249	0.0159312	0.015597	0.0152729	0.0149581	0.0146433	0.0143284	0.0140136	0.0136988	0.013384	0.0130692	0.0127544	0.0124396	0.0121248
San Bernardino (SC)	Annual	LDT1	GAS	AIIMYr	5	0.1859306	0.13814669	0.12185203	0.106504254	0.08964581	0.0738387	0.0728755	0.06959	0.06571	0.06201	0.047989	0.0408464	0.0328493	0.025364	0.02167	0.01869	0.0157315	0.0130589	0.01061384	0.008426	0.006481	0.0047819	0.0033167	
San Bernardino (SC)	Annual	LDT1	DSL	AIIMYr	10	0.0156264	0.01465575	0.01384732	0.013175969	0.01265158	0.012186	0.0117616	0.011411	0.011051	0.010723	0.010431	0.01019446	0.00997939	0.0097741	0.0095786	0.0093831	0.0091876	0.0089921	0.0087966	0.0086011	0.			

San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	15	0.0043199	0.0039061	0.0035781	0.0032674	0.0029154	0.0026276	0.0023702	0.002172	0.0019732	0.001791	0.0016285	0.0014668	0.0013141	0.0012542	0.0011525	0.001057	0.777E-04	9.06E-04	8.42E-04	7.73E-04	7.17E-04					
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	15	0.0729449	0.0703531	0.0671453	0.0640759	0.0609882	0.0580273	0.0561825	0.054305	0.0525078	0.050749	0.0490723	0.0473789	0.0456674	0.0440371	0.0424901	0.0409661	0.0394776	0.0380263	0.042393046	0.0420266	0.041751809	0.04131462	0.040793734			
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	20	0.0030124	0.0027492	0.00249072	0.00225769	0.00203029	0.0018322	0.0016668	0.001515	0.001375	0.001249	0.0011356	0.00103683	9.51E-04	8.75E-04	8.04E-04	7.37E-04	6.81E-04	6.32E-04	5.92E-04	5.59E-04	5.30E-04	5.04E-04	4.80E-04			
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	20	0.0571714	0.0562832	0.0549371	0.0536969	0.0524652	0.0512395	0.0500242	0.0488162	0.0476184	0.0464291	0.0452483	0.0440769	0.0429147	0.0417621	0.0406184	0.0394837	0.0383587	0.0372437	0.0361382	0.0350429	0.0339476	0.0328523	0.0317671			
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	25	0.0021896	0.00199231	0.00181045	0.001640608	0.001475771	0.0013318	0.001211	0.001101	0.0010375	0.0009824	0.0009254	0.0008684	0.0008114	0.0007544	0.0006974	0.0006404	0.0005834	0.0005264	0.0004694	0.0004124	0.0003554	0.0002984	0.0002414	0.0001844		
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	25	0.0490924	0.04713423	0.04518926	0.043131349	0.04104547	0.0391739	0.0378112	0.036547	0.0352023	0.033972	0.0328106	0.0317683	0.030839	0.029921	0.029018	0.028129	0.027244	0.026363	0.025492	0.024631	0.02378	0.022939	0.022107	0.021284		
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	30	0.001659	0.00150952	0.00137173	0.001243079	0.00111816	0.0010091	9.18E-04	8.34E-04	7.57E-04	6.88E-04	6.25E-04	5.71E-04	5.24E-04	4.82E-04	4.43E-04	4.06E-04	3.75E-04	3.44E-04	3.23E-04	2.99E-04	2.75E-04	2.54E-04	2.34E-04	2.16E-04		
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	30	0.0416251	0.03996482	0.0383157	0.03675078	0.0348202	0.0333263	0.0320359	0.030988	0.029949	0.028905	0.027919	0.0270321	0.026199	0.025423	0.024698	0.024022	0.023418	0.022814	0.02221	0.021615	0.021026	0.020437	0.019848	0.019259		
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	35	0.0013103	0.00119219	0.00108337	9.82E-04	8.830E-04	7.97E-04	7.25E-04	6.59E-04	5.99E-04	5.43E-04	4.94E-04	4.51E-04	4.13E-04	3.80E-04	3.49E-04	3.21E-04	2.96E-04	2.75E-04	2.56E-04	2.34E-04	2.16E-04	1.98E-04	1.82E-04	1.68E-04		
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	35	0.0369788	0.0349367	0.0321028	0.029187195	0.0261495	0.023795	0.021788	0.0202659	0.018917	0.0176413	0.0164375	0.0152989	0.014217	0.0131421	0.0120733	0.0110163	0.0100023	0.0090423	0.0081363	0.0072793	0.0064623	0.0056853	0.0049083	0.0041313		
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	40	0.0010787	9.81E-04	8.92E-04	8.08E-04	7.27E-04	6.56E-04	5.97E-04	5.42E-04	4.93E-04	4.47E-04	4.07E-04	3.71E-04	3.40E-04	3.13E-04	2.88E-04	2.64E-04	2.41E-04	2.20E-04	2.01E-04	1.84E-04	1.69E-04	1.54E-04	1.40E-04	1.27E-04		
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	40	0.031967	0.03069193	0.0294544	0.02808453	0.02672711	0.0253905	0.0242611	0.0232798	0.022302	0.021222	0.0201365	0.0190709	0.0180159	0.0169674	0.0159244	0.0148874	0.0138517	0.0128215	0.011797	0.010773	0.009758	0.008743	0.007728	0.006713		
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	45	0.000939	8.42E-04	7.65E-04	6.94E-04	6.24E-04	5.63E-04	5.12E-04	4.65E-04	4.23E-04	3.84E-04	3.49E-04	3.19E-04	2.92E-04	2.69E-04	2.47E-04	2.27E-04	2.09E-04	1.94E-04	1.80E-04	1.68E-04	1.54E-04	1.40E-04	1.27E-04	1.16E-04		
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	45	0.0289539	0.0277989	0.0266518	0.02543173	0.02420794	0.0230141	0.0222004	0.021555	0.020762	0.020036	0.0193511	0.0186002	0.0178285	0.0170451	0.0162533	0.0154615	0.0146697	0.0138779	0.0130861	0.0122943	0.0115025	0.0107107	0.0099189	0.0091271	0.0083353	
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	50	0.000784	7.53E-04	6.85E-04	6.20E-04	5.58E-04	5.04E-04	4.58E-04	4.18E-04	3.79E-04	3.43E-04	3.12E-04	2.85E-04	2.61E-04	2.40E-04	2.21E-04	2.03E-04	1.87E-04	1.74E-04	1.61E-04	1.48E-04	1.37E-04	1.26E-04	1.16E-04	1.07E-04		
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	50	0.0268081	0.0257388	0.0246781	0.023525498	0.02241389	0.021399	0.0204677	0.019585	0.0187224	0.0178552	0.0170171	0.0161833	0.0153633	0.0145483	0.0137414	0.0129424	0.0121514	0.0113684	0.0105934	0.0098264	0.0090674	0.0083164	0.0075734	0.0068384	0.0061034	
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	55	0.000658	6.03E-04	5.49E-04	4.95E-04	4.45E-04	4.00E-04	3.62E-04	3.28E-04	2.97E-04	2.69E-04	2.44E-04	2.21E-04	2.00E-04	1.81E-04	1.64E-04	1.49E-04	1.36E-04	1.24E-04	1.14E-04	1.05E-04	9.7E-05	8.9E-05	8.2E-05	7.5E-05	6.9E-05	
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	55	0.0225735	0.02143614	0.02035614	0.0192292518	0.01814424	0.01710942	0.0161248	0.0151892	0.0142934	0.0134472	0.0126506	0.0119034	0.0111558	0.0104082	0.0096606	0.008913	0.0081654	0.0074175	0.0066696	0.0059217	0.0051738	0.0044259	0.003678	0.00293	0.002182	
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	60	0.0005498	0.0005059	0.0004629	0.0004204	0.0003779	0.0003354	0.0002929	0.0002504	0.0002079	0.0001654	0.0001229	0.0000804	0.0000379	0.0000304	0.0000229	0.0000154	0.0000079	0.0000054	0.0000029	0.0000004	0.0000004	0.0000004	0.0000004	0.0000004	0.0000004	0.0000004
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	60	0.0245498	0.0235709	0.0225919	0.0216129	0.0206339	0.0196549	0.0186759	0.0176969	0.0167179	0.0157389	0.0147599	0.0137809	0.0128019	0.0118229	0.0108439	0.0098649	0.0088859	0.0079069	0.0069279	0.0059489	0.0049699	0.0039909	0.0030119	0.0020329	0.0010539	
San Bernardino (SC)	Annual	LHD1	GAS	AIMYr	65	0.0004283	0.0003843	0.0003403	0.0002963	0.0002523	0.0002083	0.0001643	0.0001203	0.0000763	0.0000323	0.0000143	0.0000063	0.0000013	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003	0.0000003
San Bernardino (SC)	Annual	LHD1	DSL	AIMYr	65	0.0242813	0.02331274	0.02235075	0.021389274	0.02042778	0.01946629	0.0185048	0.0175433	0.0165818	0.0156203	0.0146588	0.0136973	0.0127358	0.0117743	0.0108128	0.0098513	0.0088898	0.0079283	0.0069668	0.0060053	0.0050438	0.0040823	0.0031208	0.0021593	0.0011978	
San Bernardino (SC)	Annual	LHD2	GAS	AIMYr	5	0.0066465	0.00585711	0.00516285	0.00451811	0.00390907	0.0034468	0.0030552	0.002735	0.002432	0.002169	0.0019375	0.0017187	0.0015199	0.0013481	0.0011967	0.0010619	0.0009423	0.0008377	0.0007471	0.0006605	0.0005779	0.0004993	0.0004247	0.0003531		
San Bernardino (SC)	Annual	LHD2	DSL	AIMYr	5	0.0116088	0.00976669	0.00811357	0.006703201	0.00561028	0.0047891	0.0040644	0.003427	0.0028721	0.002391	0.0019375	0.0015199	0.0011356	0.0007811	0.0004666	0.0002924	0.0001614	0.0000718	0.0000263	0.0000088	0.0000023	0.0000008	0.0000003	0.0000001	0.0000001	
San Bernardino (SC)	Annual	LHD2	GAS	AIMYr	10	0.0063523	0.00471662	0.0041575	0.00358946	0.0031479	0.002757	0.0024063	0.0020203	0.0016959	0.0014177	0.0011603	0.0009147	0.0006833	0.0004641	0.0002666	0.0001414	0.0000718	0.0000263	0.0000088	0.0000023	0.0000008	0.0000003	0.0000001	0.0000001		
San Bernardino (SC)	Annual	LHD2	DSL	AIMYr	10	0.0897816	0.08632487	0.08315894	0.079261816	0.07564529	0.0723634	0.06941799	0.0668457	0.0645713	0.062371	0.060246	0.058176	0.056146	0.054146	0.052176	0.050236	0.048326	0.046446	0.044596	0.042776	0.040986	0.039226	0.037496	0.035786	0.034096	
San Bernardino (SC)	Annual	LHD2	GAS	AIMYr	15	0.0035806	0.0031533	0.0027812	0.00246272	0.0021969	0.0019569	0.0017474	0.001561	0.001398	0.001258	0.001135	0.001036	0.000949	0.000872	0.000805	0.000748	0.000691	0.000634	0.000577	0.00052	0.000463	0.000406	0.000349	0.000292	0.000235	
San Bernardino (SC)	Annual	LHD2	DSL	AIMYr	15	0.0712632	0.06851945	0.06600645	0.062913228	0.06004264	0.0574377	0.05491	0.052479	0.050571	0.048713	0.046825	0.044977	0.043169	0.041401	0.039673	0.037985	0.036337	0.034729	0.033161	0.031633	0.030145	0.028697	0.027289	0.025921	0.024593	
San Bernardino (SC)	Annual	LHD2	GAS	AIMYr	20	0.0024969	0.00220023	0.00193949	0.00172381	0.00146849	0.0012948	0.0011477	0.001028	9.14E-04	8.15E-04	7.42E-04	6.89E-04	6.41E-04	5.98E-04	5.57E-04	5.17E-04	4.87E-04	4.59E-04	4.36E-04	4.14E-04	3.92E-04	3.71E-04	3.50E-04	3.30E-04	3.10E-04	
San Bernardino (SC)	Annual	LHD2	DSL	AIMYr	20	0.0578226	0.0559636	0.05355732	0.051047028	0.04871832	0.0464047	0.044353	0.042601	0.0411033	0.039626	0.038235	0.036913	0.035653	0.034453	0.033303	0.032203	0.031153	0.030103	0.029053	0.028003	0.026953	0.025903	0.024853	0.023803	0.022753	
San Bernardino (SC)	Annual	LHD2	GAS	AIMYr	25	0.0018149	0.00159934	0.00140977	0.001215613	0.00106741	9.41E-04	8.34E-04	7.47E-04	6.64E-04	5.92E-04	5.29E-04	4.78E-04	4.35E-04	4.06E-04	3.80E-04	3.54E-04	3.30E-04	3.07E-04	2.84E-04	2.61E-04	2.39E-04	2.18E-04	1.98E-04	1.79E-04	1.60E-04	
San Bernardino (SC)	Annual	LHD2	DSL	AIMYr	25	0.0479606	0.04611405	0.04442278	0.042421308	0.0404911	0.038656	0.0369458	0.035301	0.033724	0.032127	0.0306082	0.0291457	0.0277292	0.0263517	0.0250142	0.0237167	0.0224592	0.0212417	0.0200642	0.0189267	0.0178292	0.0167717	0.0157542	0.0147767	0.0138292	
San Bernardino (SC)	Annual	LHD2	GAS	AIMYr	30	0.0013751	0.0012178	0.00106915	9.21E-04	8.05E-04	7.13E-04	6.32E-04</																			

San Bernardino (SC)	Annual	T6	GAS	AIMYr	30	0.001602	0.00132572	0.00180818	9.00E-04	7.63E-04	6.55E-04	5.61E-04	4.97E-04	4.43E-04	4.00E-04	3.63E-04	3.34E-04	3.11E-04	2.91E-04	2.73E-04	2.56E-04	2.40E-04	2.30E-04	2.21E-04	2.13E-04	
San Bernardino (SC)	Annual	T6	DSL	AIMYr	30	0.0934747	0.07924949	0.06753477	0.058375237	0.0502795	0.0384491	0.0289419	0.028407	0.027532	0.027272	0.0278458	0.02793118	0.02799532	0.0280437	0.028068	0.02809	0.028112375	0.0281275	0.02813421	0.02813416	
San Bernardino (SC)	Annual	T6	GAS	AIMYr	35	0.0012652	0.00104703	8.61E-04	7.11E-04	6.03E-04	5.17E-04	4.43E-04	3.93E-04	3.50E-04	3.16E-04	2.87E-04	2.64E-04	2.46E-04	2.30E-04	2.16E-04	2.04E-04	1.96E-04	1.89E-04	1.81E-04	1.74E-04	1.68E-04
San Bernardino (SC)	Annual	T6	DSL	AIMYr	35	0.0384493	0.0769326	0.06630302	0.06703008	0.05017055	0.0394947	0.0293696	0.029327	0.028439	0.028664	0.0287724	0.0286436	0.0283381	0.028365	0.0280198	0.028038	0.0280324	0.0280302	0.02803429	0.0280354	
San Bernardino (SC)	Annual	T6	GAS	AIMYr	40	0.0010416	6.62E-04	7.09E-04	5.85E-04	4.96E-04	4.26E-04	3.65E-04	3.23E-04	2.88E-04	2.60E-04	2.36E-04	2.17E-04	2.02E-04	1.89E-04	1.78E-04	1.68E-04	1.61E-04	1.55E-04	1.49E-04	1.43E-04	
San Bernardino (SC)	Annual	T6	DSL	AIMYr	40	0.0884414	0.0779807	0.06786461	0.059826281	0.0523872	0.0421511	0.031884	0.031416	0.030478	0.030698	0.0308429	0.03094457	0.03102161	0.0310803	0.0311114	0.031139	0.0311676	0.0311864	0.031197367	0.03119813	0.031196495
San Bernardino (SC)	Annual	T6	GAS	AIMYr	45	8.94E-04	7.40E-04	6.08E-04	4.74E-04	3.85E-04	3.13E-04	2.78E-04	2.47E-04	2.23E-04	2.03E-04	1.87E-04	1.74E-04	1.63E-04	1.52E-04	1.44E-04	1.38E-04	1.33E-04	1.28E-04	1.23E-04	1.19E-04	
San Bernardino (SC)	Annual	T6	DSL	AIMYr	45	0.0934541	0.08338182	0.07301453	0.064445054	0.05692946	0.046184	0.0351854	0.034673	0.033648	0.033894	0.0340574	0.03417183	0.03425873	0.034325	0.0343607	0.034392	0.034424184	0.0344462	0.03445899	0.03446042	0.034459139
San Bernardino (SC)	Annual	T6	GAS	AIMYr	50	8.00E-04	6.62E-04	5.44E-04	4.49E-04	3.81E-04	3.27E-04	2.80E-04	2.48E-04	2.21E-04	1.99E-04	1.81E-04	1.67E-04	1.55E-04	1.45E-04	1.36E-04	1.29E-04	1.24E-04	1.19E-04	1.15E-04	1.10E-04	
San Bernardino (SC)	Annual	T6	DSL	AIMYr	50	0.1034883	0.09280661	0.08148779	0.072059329	0.06379731	0.0522966	0.0396737	0.039099	0.037951	0.03823	0.0384158	0.03854612	0.03864517	0.0387207	0.0387616	0.038798	0.038834295	0.0388595	0.03887426	0.038875187	
San Bernardino (SC)	Annual	T6	GAS	AIMYr	55	7.45E-04	6.17E-04	5.07E-04	4.19E-04	3.55E-04	3.05E-04	2.61E-04	2.31E-04	2.06E-04	1.86E-04	1.69E-04	1.56E-04	1.45E-04	1.36E-04	1.27E-04	1.20E-04	1.15E-04	1.11E-04	1.07E-04	1.03E-04	9.91E-05
San Bernardino (SC)	Annual	T6	DSL	AIMYr	55	0.118538	0.10625508	0.09328438	0.082496104	0.07299077	0.0597856	0.043368	0.044694	0.043982	0.043706	0.0439182	0.04406747	0.04418091	0.0442674	0.0443142	0.044356	0.04439474	0.0444263	0.04444346	0.04444565	0.044444638
San Bernardino (SC)	Annual	T6	GAS	AIMYr	60	7.25E-04	6.00E-04	4.93E-04	4.07E-04	3.45E-04	2.96E-04	2.54E-04	2.25E-04	2.00E-04	1.81E-04	1.64E-04	1.51E-04	1.41E-04	1.32E-04	1.24E-04	1.17E-04	1.12E-04	1.08E-04	1.04E-04	9.99E-05	9.63E-05
San Bernardino (SC)	Annual	T6	DSL	AIMYr	60	0.1386092	0.12372722	0.10840431	0.095674381	0.08450983	0.0688854	0.0522108	0.051457	0.049952	0.050332	0.0505645	0.05073585	0.05086698	0.050965	0.0510186	0.051066	0.051113781	0.0511467	0.05116601	0.05116859	0.051167493
San Bernardino (SC)	Annual	T6	GAS	AIMYr	65	7.34E-04	6.07E-04	4.99E-04	4.12E-04	3.50E-04	3.00E-04	2.57E-04	2.28E-04	2.03E-04	1.83E-04	1.66E-04	1.53E-04	1.43E-04	1.34E-04	1.25E-04	1.18E-04	1.14E-04	1.09E-04	1.05E-04	1.01E-04	9.78E-05
San Bernardino (SC)	Annual	T6	DSL	AIMYr	65	0.1636999	0.14522303	0.12684757	0.111675159	0.0983545	0.0795981	0.0602597	0.059389	0.05765	0.058074	0.0583947	0.05855127	0.05870035	0.0588136	0.0588746	0.058929	0.058983155	0.0590205	0.05904247	0.05904909	0.059043751
San Bernardino (SC)	Annual	T6	GAS	AIMYr	70					3.69E-04	3.17E-04	2.71E-04	2.41E-04	2.14E-04	1.93E-04	1.76E-04	1.62E-04	1.51E-04	1.41E-04	1.32E-04	1.25E-04	1.20E-04	1.15E-04	1.11E-04	1.07E-04	1.03E-04
San Bernardino (SC)	Annual	T6	DSL	AIMYr	70					0.11452476	0.0919176	0.0694955	0.06849	0.06648	0.066967	0.0672888	0.06751374	0.0678404	0.0678132	0.0678823	0.067944	0.068005617	0.0680479	0.068072573	0.06807514	0.068073413
San Bernardino (SC)	Annual	T7	GAS	AIMYr	5	0.0032593	0.00270473	0.00241712	0.002079367	0.00193613	0.0017176	0.0015421	0.001448	0.001351	0.001281	0.0012038	0.0011555	0.0011019	0.0010834	0.0010458	0.001014	9.80E-04	9.65E-04	9.42E-04	9.38E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	5	0.2874885	0.15739351	0.12506118	0.118613923	0.11244018	0.0987239	0.0895697	0.088356	0.087228	0.087367	0.0874953	0.08215066	0.08207723	0.0810018	0.0808878	0.080797	0.080712227	0.0806436	0.080547622	0.08045273	0.080390446
San Bernardino (SC)	Annual	T7	GAS	AIMYr	10	0.0026247	0.00217807	0.00194647	0.001674477	0.00155913	0.0013832	0.0012418	0.001166	0.001088	0.001032	9.69E-04	9.31E-04	8.94E-04	8.42E-04	8.16E-04	7.89E-04	7.77E-04	7.66E-04	7.59E-04	7.52E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	10	0.2150698	0.12645277	0.10374133	0.096654444	0.09560272	0.086771	0.0806258	0.079822	0.078947	0.079151	0.079349	0.07451201	0.07451529	0.0735988	0.0735637	0.073549	0.073546286	0.0735511	0.073536343	0.07352122	0.073526861
San Bernardino (SC)	Annual	T7	GAS	AIMYr	15	0.0017559	0.00145709	0.00130215	0.001120193	0.00104303	9.25E-04	8.31E-04	7.80E-04	7.29E-04	6.89E-04	6.48E-04	6.22E-04	5.98E-04	5.84E-04	5.83E-04	5.46E-04	5.29E-04	5.20E-04	5.12E-04	5.05E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	15	0.158676	0.10155639	0.08620098	0.083884468	0.08143257	0.0762225	0.0727429	0.071911	0.071237	0.071481	0.0717181	0.06736054	0.06741824	0.0666376	0.0666576	0.066698	0.066752822	0.0668006	0.066852875	0.06689471	0.066948446
San Bernardino (SC)	Annual	T7	GAS	AIMYr	20	0.0012244	0.00101607	9.08E-04	7.81E-04	7.27E-04	6.45E-04	5.79E-04	5.44E-04	5.08E-04	4.81E-04	4.52E-04	4.34E-04	4.17E-04	4.07E-04	3.93E-04	3.81E-04	3.68E-04	3.62E-04	3.57E-04	3.54E-04	3.52E-04
San Bernardino (SC)	Annual	T7	DSL	AIMYr	20	0.1576478	0.07891287	0.06479438	0.05432003	0.061415	0.0569878	0.0543678	0.053126	0.052386	0.050698	0.05046327	0.05040796	0.05425644	0.053196	0.0540254	0.054133	0.054830028	0.0549323	0.055026231	0.05511365	0.055205817
San Bernardino (SC)	Annual	T7	GAS	AIMYr	25	8.90E-04	7.39E-04	6.60E-04	5.68E-04	5.29E-04	4.69E-04	4.21E-04	3.95E-04	3.69E-04	3.50E-04	3.29E-04	3.16E-04	3.03E-04	2.96E-04	2.86E-04	2.77E-04	2.68E-04	2.63E-04	2.60E-04	2.57E-04	2.56E-04
San Bernardino (SC)	Annual	T7	DSL	AIMYr	25	0.101543	0.07436132	0.06612372	0.065433178	0.0644734	0.0627065	0.0614182	0.060784	0.060321	0.060585	0.0608426	0.05715633	0.05725637	0.0566376	0.0567033	0.056787	0.056888848	0.0569836	0.057072592	0.05715946	0.057250127
San Bernardino (SC)	Annual	T7	GAS	AIMYr	30	8.74E-04	5.60E-04	5.00E-04	4.30E-04	4.01E-04	3.55E-04	3.19E-04	3.00E-04	2.80E-04	2.65E-04	2.49E-04	2.30E-04	2.24E-04	2.16E-04	2.10E-04	2.03E-04	2.00E-04	1.97E-04	1.95E-04	1.94E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	30	0.0935042	0.07115034	0.06401855	0.063605297	0.06289313	0.0616916	0.0607759	0.060167	0.059736	0.060013	0.060284	0.05683578	0.05674767	0.0561448	0.0562205	0.056314	0.056424194	0.0563302	0.056629508	0.05672652	0.056826321
San Bernardino (SC)	Annual	T7	GAS	AIMYr	35	5.33E-04	4.42E-04	3.95E-04	3.40E-04	3.16E-04	2.81E-04	2.42E-04	2.37E-04	2.21E-04	2.09E-04	1.97E-04	1.81E-04	1.77E-04	1.71E-04	1.66E-04	1.60E-04	1.58E-04	1.56E-04	1.54E-04	1.53E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	35	0.0900351	0.07113081	0.06470777	0.064524425	0.06400442	0.0632515	0.0626285	0.062022	0.061608	0.06191	0.0622069	0.05844811	0.05857693	0.0579649	0.0580528	0.058159	0.05828258	0.058401	0.058513369	0.05862331	0.058735614
San Bernardino (SC)	Annual	T7	GAS	AIMYr	40	4.38E-04	3.64E-04	3.25E-04	2.80E-04	2.60E-04	2.31E-04	2.07E-04	1.95E-04	1.82E-04	1.72E-04	1.62E-04	1.49E-04	1.46E-04	1.41E-04	1.36E-04	1.32E-04	1.30E-04	1.28E-04	1.26E-04	1.24E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	40	0.0911358	0.07430273	0.06819138	0.06819056	0.06780728	0.0673681	0.0669976	0.066549	0.0665935	0.066277	0.0666114	0.06259333	0.06274414	0.062058	0.0622002	0.062322	0.062462005	0.062596	0.062724174	0.06284984	0.062978008
San Bernardino (SC)	Annual	T7	GAS	AIMYr	45	3.76E-04	3.12E-04	2.79E-04	2.40E-04	2.23E-04	1.98E-04	1.78E-04	1.67E-04	1.56E-04	1.48E-04	1.39E-04	1.30E-04	1.26E-04	1.25E-04	1.21E-04	1.17E-04	1.13E-04	1.11E-04	1.09E-04	1.08E-04	
San Bernardino (SC)	Annual	T7	DSL	AIMYr	45	0.0968063	0.08066611	0.07446937	0.074603702	0.07430171	0.0740956	0.0738184	0.073148	0.072718	0.073112	0.0734975	0.06907142	0.06924929	0.068544	0.0686626	0.068803	0.0689261	0.0691151	0.069261923	0.0694061	0.069553902
San Bernardino (SC)	Annual	T7	GAS	AIMYr	50	3.37E-04	2.79E-04	2.50E-04	2.15E-04	2.00E-04	1.77E-04	1.59E-04	1.50E-04	1.40E-04	1.32E-04	1.24E-04	1.19E-04	1.15E-04	1.12E-04	1.08E-04	1.05E-04	1.01E-04	9.96E-05	9.82E-05	9.73E-05	9.68E-05
San Bernardino (SC)	Annual	T7	DSL	AIMYr	50	0.1074066	0.09022093	0.08354174	0.083763853	0.0834877	0.0833799	0.0831556	0.082419	0.081957	0.082416	0.0828651	0.0778824	0.07809								

San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	5	0.0084593	0.0086745	0.00750075	0.007175978	0.00698698	0.006736	0.0064343	0.006267	0.00585	0.005448	0.0053586	0.00528073	0.0049614	0.0048906	0.004821	0.003923	0.003867072	0.003812	0.003664413	0.00257517	0.002034879	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	5	0.7255075	0.71052484	0.6939649	0.679264627	0.66422991	0.6187728	0.6026314	0.591935	0.579815	0.562258	0.5054927	0.49517073	0.48818271	0.4790885	0.4706065	0.464186	0.442907807	0.435027	0.428486361	0.39888769	0.388810847	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	10	0.0068121	0.00649657	0.00640422	0.005782887	0.00562649	0.0054244	0.0051814	0.005047	0.004711	0.004387	0.0043152	0.00425247	0.0039532	0.0039383	0.0038823	0.003159	0.003114084	0.0030687	0.002950886	0.00207374	0.001638651	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	10	0.6152302	0.60252487	0.58848204	0.576016235	0.56326582	0.5247192	0.5110313	0.501961	0.491683	0.476793	0.4286577	0.41994069	0.41337883	0.405267	0.3990742	0.393629	0.375585708	0.3688028	0.363363632	0.33825667	0.329711503	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	15	0.0045572	0.00434608	0.00404079	0.00386583	0.00376401	0.0036288	0.0034663	0.003376	0.003152	0.002935	0.0028868	0.00284482	0.00267279	0.0026347	0.0025872	0.002113	0.002083262	0.0020536	0.001974086	0.00138729	0.001096226	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	15	0.4541813	0.44480192	0.43443503	0.425232426	0.4158204	0.3873634	0.3772586	0.370563	0.362975	0.351983	0.3164479	0.30998619	0.30561155	0.2999184	0.2946085	0.290589	0.27278604	0.2723351	0.268240537	0.24971119	0.243402887	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	20	0.0031779	0.00303064	0.00281775	0.00269575	0.00262475	0.0025305	0.0024171	0.002354	0.002198	0.002047	0.002013	0.00198377	0.00186381	0.0018372	0.0018111	0.001474	0.001452716	0.001432	0.001376584	9.67E-04	7.64E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	20	0.3472331	0.34006234	0.33213663	0.325100959	0.31790524	0.2961491	0.2884238	0.283305	0.277503	0.2691	0.2419325	0.2369923	0.23364778	0.2292952	0.2252357	0.222163	0.211978881	0.2082071	0.205076694	0.19091054	0.186087679	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	25	0.0023099	0.0022029	0.00204816	0.001959474	0.00190787	0.0018393	0.0017659	0.001711	0.001598	0.001488	0.0014632	0.00144196	0.00135478	0.0013354	0.0013164	0.001071	0.001055944	0.0010409	0.00100606	7.03E-04	5.56E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	25	0.2749245	0.26924694	0.26287172	0.257401191	0.25170391	0.2344783	0.2283617	0.224309	0.219715	0.213663	0.1915519	0.18784045	0.18499242	0.1815462	0.1783321	0.175899	0.167835906	0.1648495	0.162371034	0.15115487	0.147336333	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	30	0.0017502	0.00166908	0.00155184	0.001484846	0.00144554	0.0013936	0.0013312	0.001297	0.00121	0.001127	0.0011087	0.00109254	0.00102647	0.0010118	9.97E-04	8.12E-04	8.00E-04	7.89E-04	7.58E-04	5.33E-04	4.21E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	30	0.225427	0.2207717	0.21562622	0.211058604	0.20638708	0.1922628	0.1872474	0.183924	0.180158	0.174702	0.1570648	0.15385763	0.15188634	0.1488606	0.1462251	0.14423	0.137618692	0.13517	0.133137714	0.12394092	0.120809869	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	35	0.0013822	0.00131821	0.00122561	0.001172545	0.00114166	0.0011006	0.0010513	0.001024	9.58E-04	8.90E-04	8.76E-04	8.63E-04	8.11E-04	7.99E-04	7.88E-04	6.41E-04	6.32E-04	6.23E-04	5.99E-04	4.21E-04	3.32E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	35	0.1914251	0.18747193	0.18310256	0.179223926	0.17525701	0.1632631	0.1590042	0.156182	0.152984	0.148351	0.1333742	0.13065075	0.12890697	0.1264075	0.1241695	0.122475	0.116861184	0.1147818	0.113056096	0.10524648	0.102587693	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	40	0.0011379	0.00108521	0.00100896	9.65E-04	9.40E-04	9.06E-04	8.66E-04	8.43E-04	7.87E-04	7.33E-04	7.21E-04	6.70E-04	6.67E-04	6.58E-04	6.49E-04	5.28E-04	5.20E-04	5.13E-04	4.93E-04	3.46E-04	2.74E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	40	0.1683418	0.16486534	0.16102287	0.157611922	0.15412337	0.1435758	0.1398805	0.137349	0.134536	0.130462	0.1172911	0.11489604	0.11327459	0.1111644	0.1091963	0.107706	0.102769301	0.1009407	0.099423057	0.0925517	0.090217006	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	45	9.76E-04	9.31E-04	8.66E-04	8.28E-04	8.07E-04	7.78E-04	7.43E-04	7.23E-04	6.75E-04	6.29E-04	6.19E-04	6.10E-04	5.73E-04	5.65E-04	5.57E-04	4.53E-04	4.46E-04	4.40E-04	4.23E-04	2.97E-04	2.35E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	45	0.1533153	0.15014915	0.14664965	0.143543165	0.14036602	0.1307599	0.1273489	0.125089	0.122527	0.118817	0.1068214	0.10464019	0.10316348	0.1012417	0.0994492	0.098092	0.093595917	0.0919305	0.090548357	0.08429352	0.082164057	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	50	8.73E-04	8.33E-04	7.74E-04	7.41E-04	7.21E-04	6.96E-04	6.64E-04	6.47E-04	6.04E-04	5.63E-04	5.53E-04	5.45E-04	5.12E-04	5.05E-04	4.98E-04	4.05E-04	3.99E-04	3.94E-04	3.78E-04	2.66E-04	2.10E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	50	0.1446036	0.1416174	0.13831676	0.135386809	0.13239017	0.1233299	0.1201128	0.117981	0.115565	0.112065	0.1007517	0.09866435	0.09730156	0.0954889	0.0937984	0.092519	0.088277632	0.0867069	0.085403241	0.07950381	0.077495354	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	55	8.14E-04	7.77E-04	7.22E-04	6.91E-04	6.73E-04	6.48E-04	6.19E-04	6.03E-04	5.63E-04	5.16E-04	5.08E-04	4.78E-04	4.71E-04	4.64E-04	3.78E-04	3.72E-04	3.67E-04	3.53E-04	2.48E-04	1.96E-04		
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	55	0.1412451	0.1383282	0.13510421	0.132242315	0.12931528	0.1204655	0.117323	0.115241	0.112881	0.109463	0.0984116	0.09640208	0.09504161	0.0932711	0.0916198	0.09037	0.086227295	0.084683	0.083419675	0.07765726	0.075656445	
San Bernardino (SC)	Annual	UBUS	GAS	AIIMYr	60	7.92E-04	7.55E-04	7.02E-04	6.71E-04	6.54E-04	6.30E-04	6.02E-04	5.86E-04	5.47E-04	5.10E-04	5.01E-04	4.94E-04	4.64E-04	4.58E-04	4.51E-04	3.67E-04	3.61E-04	3.57E-04	3.40E-04	2.41E-04	1.90E-04	
San Bernardino (SC)	Annual	UBUS	DSL	AIIMYr	60	0.1428788	0.13992815	0.1366688	0.133771854	0.13081099	0.1218588	0.11868	0.116574	0.114187	0.110729	0.0995499	0.09751709	0.0961409	0.0943499	0.0926795	0.091415	0.087224624	0.0856726	0.084384524	0.07855547	0.076570967	
70-year Average DPM Emission Factors (2015-2084)																											
10 mph 35 mph																											
Vehicle Class (g/mi) (g/mi)																											
LHDT1 0.056304 0.022104																											
LHDT2 0.053224 0.020895																											
T6 (MHDT) 0.045575 0.032399																											
T7 (HHDT) 0.079131 0.060694																											

EMFAC2011 Idling Emission Factors		(2015 - 2085)	
Idling Emission Factors for LHDT1 and LHDT2 are derived by multiplying the Running Exhaust Emission Factor (g/mi) times 5 mph to get g/hr			
Idling Emission Factors for MHDT and HHDT derived directly from the CARB HDT Idling Emission Factor Database			
	70-year		70-year
Vehicle Class	Ave Emission Factor at 5 mph	Speed (mph)	Emission Factor (g/mi)
LHDT2	0.0213	5	0.1066
	T6 Idling Factors (g/hr)	T7 Idling Factors (g/hr)	
2015	0.337	0.268	
2016	0.277	0.147	
2017	0.235	0.125	
2018	0.205	0.123	
2019	0.178	0.12	
2020	0.112	0.117	
2021	0.098	0.114	
2022	0.096	0.112	
2023	0.093	0.11	
2024	0.092	0.11	
2025	0.092	0.11	
2026	0.092	0.109	
2027	0.092	0.109	
2028	0.091	0.109	
2029	0.091	0.109	
2030	0.091	0.109	
2031	0.091	0.108	
2032	0.091	0.108	
2033	0.091	0.108	
2034	0.091	0.108	
2035	0.09	0.108	
	70-Year Ave Idling Emission Factor (g/hr)		
T6 (MHDT)	0.103		
T7 (HHDT)	0.113		

APPENDIX D

CalEEMod Model Annual Emissions Printouts

**Alabama Venture 1, 5416 warehouse
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	313.47	1000sqft	7.20	313,470.00	0
Parking Lot	238.00	Space	2.14	95,200.00	0
Other Non-Asphalt Surfaces	5.47	Acre	5.47	238,273.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 313,470 1000 sq ft of warehouse on 14.81 238 space parking lot and 4.73 acres of other non-asphalt surfaces.

Construction Phase - Project schedule provided by applicant

Trips and VMT - 6 vendor trucks per day added to the Site Preparation and Grading phases to account for water truck emissions

Architectural Coating - Per SCAQMD Rule 1113, architectural coatings that are applied after January 1, 2014 will be limited to 50 grams of VOC per liter

Vehicle Trips - Trip Rate set to 1.68 per 1000 sq ft to match TIA. C-W Trip length extended to 40 miles and percentage adjusted to 20

Vehicle Emission Factors - Vehicle mix revised to match TIA

Vehicle Emission Factors - Vehicle mix revised to match TIA

Vehicle Emission Factors - Vehicle mix revised to match TIA

Water And Wastewater - Indoor water use 10,518,697 gallons per year. Outdoor water use 3,576,357 gallons per year

Construction Off-road Equipment Mitigation - Water exposed areas a minimum of 3 times per day

Grading - Site is 14.81 acres

Area Coating - SCAQMD Rule 1113 50g/L VOC

Sequestration - ~1 tree per 3 parking spaces = 238 spaces / 3 spaces = 80 trees

Mobile Land Use Mitigation - 1.9 miles to downtown Redlands. Warehouse will create an average of 15 jobs per acre. Sidewalks adjacent to site and connecting off-site.

Mobile Commute Mitigation - 80% of project traffic is light vehicle, all those vehicles are eligible for ride share and van pool

Area Mitigation - SCAQMD Rule 1113

Energy Mitigation - 2013 Title 24 is 30% more efficient than 2008 Title 24

Water Mitigation - Green Building standards

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblConstructionPhase	NumDays	20.00	49.00
tblConstructionPhase	NumDays	300.00	262.00
tblConstructionPhase	NumDays	20.00	52.00

tblConstructionPhase	PhaseEndDate	10/23/2015	10/25/2015
tblGrading	AcresOfGrading	75.00	14.81
tblProjectCharacteristics	OperationalYear	2014	2015
tblSequestration	NumberOfNewTrees	0.00	80.00
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	HHD	0.04	0.12
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDA	0.47	0.43
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD2	9.1200e-003	5.0000e-003
tblVehicleEF	LHD2	9.1200e-003	5.0000e-003
tblVehicleEF	LHD2	9.1200e-003	5.0000e-003
tblVehicleEF	MCY	4.8710e-003	4.0000e-003
tblVehicleEF	MCY	4.8710e-003	4.0000e-003
tblVehicleEF	MCY	4.8710e-003	4.0000e-003
tblVehicleEF	MDV	0.16	0.14
tblVehicleEF	MDV	0.16	0.14
tblVehicleEF	MDV	0.16	0.14

tblVehicleEF	MH	2.9140e-003	0.00
tblVehicleEF	MH	2.9140e-003	0.00
tblVehicleEF	MH	2.9140e-003	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	OBUS	1.1190e-003	0.00
tblVehicleEF	OBUS	1.1190e-003	0.00
tblVehicleEF	OBUS	1.1190e-003	0.00
tblVehicleEF	SBUS	7.2300e-004	0.00
tblVehicleEF	SBUS	7.2300e-004	0.00
tblVehicleEF	SBUS	7.2300e-004	0.00
tblVehicleEF	UBUS	1.3380e-003	0.00
tblVehicleEF	UBUS	1.3380e-003	0.00
tblVehicleEF	UBUS	1.3380e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	80.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	CW_TTP	59.00	20.00
tblVehicleTrips	ST_TR	2.59	1.68
tblVehicleTrips	SU_TR	2.59	1.68
tblVehicleTrips	WD_TR	2.59	1.68

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8526	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147
Energy	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	330.6800	330.6800	0.0142	3.4600e-003	332.0519
Mobile	0.5544	3.6978	7.3979	0.0164	0.9288	0.0582	0.9869	0.2495	0.0535	0.3030	0.0000	1,388.4498	1,388.4498	0.0436	0.0000	1,389.3651
Waste						0.0000	0.0000		0.0000	0.0000	59.8133	0.0000	59.8133	3.5349	0.0000	134.0455
Water						0.0000	0.0000		0.0000	0.0000	22.9977	270.1105	293.1082	2.3745	0.0583	361.0590
Total	3.4105	3.7307	7.4329	0.0166	0.9288	0.0607	0.9895	0.2495	0.0560	0.3055	82.8110	1,989.2542	2,072.0652	5.9672	0.0618	2,216.5362

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	2.4670	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147
Energy	2.5500e-003	0.0232	0.0195	1.4000e-004		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	307.9811	307.9811	0.0135	3.1500e-003	309.2412
Mobile	0.4809	2.6987	5.9549	0.0116	0.6484	0.0411	0.6895	0.1742	0.0378	0.2119	0.0000	979.3833	979.3833	0.0314	0.0000	980.0425
Waste						0.0000	0.0000		0.0000	0.0000	59.8133	0.0000	59.8133	3.5349	0.0000	134.0455
Water						0.0000	0.0000		0.0000	0.0000	18.3982	216.0884	234.4866	1.8993	0.0466	288.8179
Total	2.9504	2.7219	5.9817	0.0117	0.6484	0.0429	0.6913	0.1742	0.0395	0.2137	78.2115	1,503.4666	1,581.6781	5.4790	0.0498	1,712.1617

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	13.49	27.04	19.52	29.41	30.19	29.38	30.14	30.18	29.41	30.04	5.55	24.42	23.67	8.18	19.50	22.76

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	56.6400
Total	56.6400

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2014	8/11/2014	5	30	
2	Building Construction	Building Construction	8/12/2014	8/12/2015	5	262	
3	Paving	Paving	8/13/2015	10/25/2015	5	52	
4	Architectural Coating	Architectural Coating	10/26/2015	12/31/2015	5	49	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.81

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 831,899; Non-Residential Outdoor: 277,300 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	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	125	0.42
Paving	Paving Equipment	2	8.00	130	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
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	272.00	106.00	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	54.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2014

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					0.0982	0.0000	0.0982	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1027	1.2108	0.7738	9.3000e-004		0.0582	0.0582		0.0535	0.0535	0.0000	89.1967	89.1967	0.0264	0.0000	89.7502
Total	0.1027	1.2108	0.7738	9.3000e-004	0.0982	0.0582	0.1564	0.0505	0.0535	0.1040	0.0000	89.1967	89.1967	0.0264	0.0000	89.7502

3.2 Grading - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	2.1900e-003	0.0228	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	3.1417	3.1417	1.9000e-004	0.0000	3.1457
Total	1.4600e-003	2.1900e-003	0.0228	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	3.1417	3.1417	1.9000e-004	0.0000	3.1457

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					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1027	1.2108	0.7738	9.3000e-004		0.0582	0.0582		0.0535	0.0535	0.0000	89.1966	89.1966	0.0264	0.0000	89.7501
Total	0.1027	1.2108	0.7738	9.3000e-004	0.0383	0.0582	0.0965	0.0197	0.0535	0.0732	0.0000	89.1966	89.1966	0.0264	0.0000	89.7501

3.2 Grading - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	2.1900e-003	0.0228	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	3.1417	3.1417	1.9000e-004	0.0000	3.1457
Total	1.4600e-003	2.1900e-003	0.0228	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	3.1417	3.1417	1.9000e-004	0.0000	3.1457

3.3 Building Construction - 2014

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	0.1973	1.5939	0.9654	1.3700e-003		0.1136	0.1136		0.1070	0.1070	0.0000	125.3449	125.3449	0.0319	0.0000	126.0141
Total	0.1973	1.5939	0.9654	1.3700e-003		0.1136	0.1136		0.1070	0.1070	0.0000	125.3449	125.3449	0.0319	0.0000	126.0141

3.3 Building Construction - 2014

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	0.0647	0.6402	0.7513	1.1700e-003	0.0334	0.0123	0.0458	9.5600e-003	0.0113	0.0209	0.0000	108.3946	108.3946	9.6000e-004	0.0000	108.4146
Worker	0.0674	0.1011	1.0551	1.7900e-003	0.1521	1.2900e-003	0.1534	0.0404	1.1700e-003	0.0416	0.0000	145.2730	145.2730	8.7200e-003	0.0000	145.4561
Total	0.1321	0.7413	1.8064	2.9600e-003	0.1855	0.0136	0.1991	0.0500	0.0125	0.0625	0.0000	253.6676	253.6676	9.6800e-003	0.0000	253.8708

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	0.1973	1.5939	0.9654	1.3700e-003		0.1136	0.1136		0.1070	0.1070	0.0000	125.3447	125.3447	0.0319	0.0000	126.0140
Total	0.1973	1.5939	0.9654	1.3700e-003		0.1136	0.1136		0.1070	0.1070	0.0000	125.3447	125.3447	0.0319	0.0000	126.0140

3.3 Building Construction - 2014

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	0.0647	0.6402	0.7513	1.1700e-003	0.0334	0.0123	0.0458	9.5600e-003	0.0113	0.0209	0.0000	108.3946	108.3946	9.6000e-004	0.0000	108.4146
Worker	0.0674	0.1011	1.0551	1.7900e-003	0.1521	1.2900e-003	0.1534	0.0404	1.1700e-003	0.0416	0.0000	145.2730	145.2730	8.7200e-003	0.0000	145.4561
Total	0.1321	0.7413	1.8064	2.9600e-003	0.1855	0.0136	0.1991	0.0500	0.0125	0.0625	0.0000	253.6676	253.6676	9.6800e-003	0.0000	253.8708

3.3 Building Construction - 2015

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	0.2927	2.4024	1.4996	2.1500e-003		0.1693	0.1693		0.1592	0.1592	0.0000	195.1955	195.1955	0.0490	0.0000	196.2239
Total	0.2927	2.4024	1.4996	2.1500e-003		0.1693	0.1693		0.1592	0.1592	0.0000	195.1955	195.1955	0.0490	0.0000	196.2239

3.3 Building Construction - 2015

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	0.0866	0.8789	1.0653	1.8400e-003	0.0524	0.0148	0.0672	0.0150	0.0136	0.0286	0.0000	169.0796	169.0796	1.3500e-003	0.0000	169.1081
Worker	0.0941	0.1412	1.4835	2.8300e-003	0.2386	1.9000e-003	0.2405	0.0634	1.7400e-003	0.0651	0.0000	221.1936	221.1936	0.0125	0.0000	221.4568
Total	0.1807	1.0201	2.5487	4.6700e-003	0.2910	0.0167	0.3077	0.0784	0.0154	0.0937	0.0000	390.2733	390.2733	0.0139	0.0000	390.5649

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	0.2927	2.4024	1.4996	2.1500e-003		0.1693	0.1693		0.1592	0.1592	0.0000	195.1952	195.1952	0.0490	0.0000	196.2237
Total	0.2927	2.4024	1.4996	2.1500e-003		0.1693	0.1693		0.1592	0.1592	0.0000	195.1952	195.1952	0.0490	0.0000	196.2237

3.3 Building Construction - 2015

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	0.0866	0.8789	1.0653	1.8400e-003	0.0524	0.0148	0.0672	0.0150	0.0136	0.0286	0.0000	169.0796	169.0796	1.3500e-003	0.0000	169.1081
Worker	0.0941	0.1412	1.4835	2.8300e-003	0.2386	1.9000e-003	0.2405	0.0634	1.7400e-003	0.0651	0.0000	221.1936	221.1936	0.0125	0.0000	221.4568
Total	0.1807	1.0201	2.5487	4.6700e-003	0.2910	0.0167	0.3077	0.0784	0.0154	0.0937	0.0000	390.2733	390.2733	0.0139	0.0000	390.5649

3.4 Paving - 2015

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	0.0603	0.6546	0.3894	5.8000e-004		0.0368	0.0368		0.0338	0.0338	0.0000	55.1907	55.1907	0.0165	0.0000	55.5367
Paving	2.8000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0631	0.6546	0.3894	5.8000e-004		0.0368	0.0368		0.0338	0.0338	0.0000	55.1907	55.1907	0.0165	0.0000	55.5367

3.4 Paving - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6900e-003	2.5300e-003	0.0266	5.0000e-005	4.2800e-003	3.0000e-005	4.3100e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	3.9644	3.9644	2.2000e-004	0.0000	3.9691
Total	1.6900e-003	2.5300e-003	0.0266	5.0000e-005	4.2800e-003	3.0000e-005	4.3100e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	3.9644	3.9644	2.2000e-004	0.0000	3.9691

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	0.0603	0.6546	0.3894	5.8000e-004		0.0368	0.0368		0.0338	0.0338	0.0000	55.1907	55.1907	0.0165	0.0000	55.5367
Paving	2.8000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0631	0.6546	0.3894	5.8000e-004		0.0368	0.0368		0.0338	0.0338	0.0000	55.1907	55.1907	0.0165	0.0000	55.5367

3.4 Paving - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6900e-003	2.5300e-003	0.0266	5.0000e-005	4.2800e-003	3.0000e-005	4.3100e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	3.9644	3.9644	2.2000e-004	0.0000	3.9691
Total	1.6900e-003	2.5300e-003	0.0266	5.0000e-005	4.2800e-003	3.0000e-005	4.3100e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	3.9644	3.9644	2.2000e-004	0.0000	3.9691

3.5 Architectural Coating - 2015

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	1.2853					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9600e-003	0.0630	0.0466	7.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	6.2555	6.2555	8.1000e-004	0.0000	6.2726
Total	1.2952	0.0630	0.0466	7.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	6.2555	6.2555	8.1000e-004	0.0000	6.2726

3.5 Architectural Coating - 2015

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	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	0.0000
Worker	5.7200e-003	8.5800e-003	0.0902	1.7000e-004	0.0145	1.2000e-004	0.0146	3.8500e-003	1.1000e-004	3.9600e-003	0.0000	13.4485	13.4485	7.6000e-004	0.0000	13.4645	
Total	5.7200e-003	8.5800e-003	0.0902	1.7000e-004	0.0145	1.2000e-004	0.0146	3.8500e-003	1.1000e-004	3.9600e-003	0.0000	13.4485	13.4485	7.6000e-004	0.0000	13.4645	

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	1.2853					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9600e-003	0.0630	0.0466	7.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	6.2555	6.2555	8.1000e-004	0.0000	6.2726
Total	1.2952	0.0630	0.0466	7.0000e-005		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	6.2555	6.2555	8.1000e-004	0.0000	6.2726

3.5 Architectural Coating - 2015

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	5.7200e-003	8.5800e-003	0.0902	1.7000e-004	0.0145	1.2000e-004	0.0146	3.8500e-003	1.1000e-004	3.9600e-003	0.0000	13.4485	13.4485	7.6000e-004	0.0000	13.4645
Total	5.7200e-003	8.5800e-003	0.0902	1.7000e-004	0.0145	1.2000e-004	0.0146	3.8500e-003	1.1000e-004	3.9600e-003	0.0000	13.4485	13.4485	7.6000e-004	0.0000	13.4645

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Employee Vanpool/Shuttle

Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive 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	0.4809	2.6987	5.9549	0.0116	0.6484	0.0411	0.6895	0.1742	0.0378	0.2119	0.0000	979.3833	979.3833	0.0314	0.0000	980.0425
Unmitigated	0.5544	3.6978	7.3979	0.0164	0.9288	0.0582	0.9869	0.2495	0.0535	0.3030	0.0000	1,388.4498	1,388.4498	0.0436	0.0000	1,389.3651

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	526.63	526.63	526.63	2,417,328	1,687,644
Parking Lot	0.00	0.00	0.00		
Total	526.63	526.63	526.63	2,417,328	1,687,644

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	40.00	8.40	6.90	20.00	0.00	80.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.432000	0.060000	0.157000	0.142000	0.030000	0.005000	0.046000	0.123000	0.000000	0.000000	0.004000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	282.7721	282.7721	0.0130	2.6900e-003	283.8787
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	294.8822	294.8822	0.0136	2.8000e-003	296.0362
NaturalGas Mitigated	2.5500e-003	0.0232	0.0195	1.4000e-004		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	25.2090	25.2090	4.8000e-004	4.6000e-004	25.3624
NaturalGas Unmitigated	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.7978	35.7978	6.9000e-004	6.6000e-004	36.0157

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					
Unrefrigerated Warehouse-No Fuel	670826	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.7978	35.7978	6.9000e-004	6.6000e-004	36.0157
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.7978	35.7978	6.9000e-004	6.6000e-004	36.0157

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					
Unrefrigerated Warehouse-No Fuel	472399	2.5500e-003	0.0232	0.0195	1.4000e-004		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	25.2090	25.2090	4.8000e-004	4.6000e-004	25.3624
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.5500e-003	0.0232	0.0195	1.4000e-004		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	25.2090	25.2090	4.8000e-004	4.6000e-004	25.3624

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	83776	23.9739	1.1000e-003	2.3000e-004	24.0677
Unrefrigerated Warehouse-No Rail	946679	270.9083	0.0125	2.5800e-003	271.9685
Total		294.8822	0.0136	2.8100e-003	296.0362

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	83776	23.9739	1.1000e-003	2.3000e-004	24.0677
Unrefrigerated Warehouse-No Rail	904361	258.7982	0.0119	2.4600e-003	259.8110
Total		282.7721	0.0130	2.6900e-003	283.8787

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	2.4670	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147
Unmitigated	2.8526	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147

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	0.5141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3377					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.3000e-004	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147
Total	2.8526	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147

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	0.1285					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3377					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.3000e-004	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147
Total	2.4670	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0138	0.0138	4.0000e-005	0.0000	0.0147

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	234.4866	1.8993	0.0466	288.8179
Unmitigated	293.1082	2.3745	0.0583	361.0590

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	72.4899 / 0	293.1082	2.3745	0.0583	361.0590
Total		293.1082	2.3745	0.0583	361.0590

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	57.992 / 0	234.4866	1.8993	0.0466	288.8179
Total		234.4866	1.8993	0.0466	288.8179

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.8133	3.5349	0.0000	134.0455
Unmitigated	59.8133	3.5349	0.0000	134.0455

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	294.66	59.8133	3.5349	0.0000	134.0455
Total		59.8133	3.5349	0.0000	134.0455

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	294.66	59.8133	3.5349	0.0000	134.0455
Total		59.8133	3.5349	0.0000	134.0455

9.0 Operational Offroad

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	56.6400	0.0000	0.0000	56.6400

10.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	80	56.6400	0.0000	0.0000	56.6400
Total		56.6400	0.0000	0.0000	56.6400



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