



Meredith International Centre Specific Plan Amendment

GREENHOUSE GAS ANALYSIS

CITY OF ONTARIO

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LIST OF ABBREVIATED TERMS

(1)	Reference
ARB	California Air Resources Board
AQIA	Air Quality Impact Analysis
BAU	Business as Usual
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAP	Climate Action Plan
CAT	Climate Action Team
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CO	Carbon Monoxide
EISA	Energy Independence and Security Act
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
Gg	Gigagrams
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO ₂ e	Million Metric Ton of Carbon Dioxide Equivalent
MTCO ₂ e	Metric Ton of Carbon Dioxide Equivalent
NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration

NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFCs	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Meredith International Centre Specific Plan Amendment
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
TOP	The Ontario Plan
TSF	Thousand Square Feet
UNFCCC	United Nations' Framework Convention on Climate Change
USEPA	United States Environmental Protection Agency
WCI	Western Regional Climate Action Initiative
ZEV	Zero Emission Vehicle

1 INTRODUCTION

This report presents the results of greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc. for the proposed Meredith International Centre Specific Plan Amendment (“Project”). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project. This GHGA quantifies the GHG emissions associated with the Project for two scenarios: first, as if no actions to reduce emissions were taken as compared to the assumptions used in preparing the baseline 2020 emissions for the California Air Resources Board Scoping Plan (California Air Resource Board (CARB) Scoping Plan, Scoping Plan) developed to implement Assembly Bill (AB) 32, (referred to herein as “Business as Usual” or BAU); and second, GHG emissions levels resulting from AB 32 compliance measures complemented by physical design and operational programs to be implemented under the Project.

1.1 SITE LOCATION

The proposed Meredith International Centre Specific Plan Amendment development is located north of the Interstate 10 (I-10) Freeway and east of Vineyard Avenue in the City of Ontario as shown on Exhibit 1-A. Existing land uses within the Project site include a commercial plaza in the eastern portion of the site, west of Archibald Avenue, and the Bernt Elementary School in the northern portion of the site, south of 4th Street.

EXHIBIT 1-A: LOCATION MAP



1.2 STUDY AREA

The Project study area includes single-family and multi-family residential uses located to the west of the Project site, across Vineyard Avenue, as well as neighborhood commercial uses and a construction equipment rental center. Land uses north of the Project site, across 4th Street, include a mix of residential, commercial, and industrial developments. San Bernardino County Flood Control basins are located north/northeast of the site. Commercial uses and the Cucamonga-Guasti Regional Park are located to the east of the Project site, across Archibald Avenue. The I-10 freeway is directly south of the Project site, and the Los Angeles/Ontario International Airport (ONT) is located approximately three-quarter miles south of the Project site. Existing surrounding land uses are graphically presented on Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Meredith International Centre Specific Plan Amendment (Meredith SPA, Specific Plan Amendment, SPA) proposes a mix of industrial, commercial, and residential land uses within five planning areas. The Planning Areas (PA) and associated land uses are discussed below, and presented graphically in Exhibit 1-C.

Planning Area 1 (PA 1) encompasses approximately 146.6 acres in the northwesterly corner of the Project site and is the largest of the Planning Areas. Uses allowed within this Planning Area would include general light industrial and warehouse/distribution operations. The Specific Plan Amendment allows two build-out scenarios within Planning Area 1: Option A assumes removal/demolition of the Bernt School, and development of the former school site as an industrial land use within the Specific Plan Area. Option B assumes continued operations of the Bernt School in its present location, in which case, screening of the School site and buffering of effects of adjacent industrial land uses would be accomplished as reflected in the Meredith SPA. The Option A and Option B site plans for PA 1 are shown on Exhibits 1-D and 1-E, respectively. For the purposes of this analysis, it is assumed that Planning Area 1 will be constructed and occupied by 2017.

At the time this greenhouse gas analysis was prepared, the future specific industrial tenants of Planning Area 1 were unknown. For the purposes of this analysis, Planning Area 1 tenants are assumed to include permitted, conditionally permitted, and ancillary uses described under the SPA's Industrial land use designation, and listed at SPA Table 5-1, *Permitted, Conditional, and Ancillary Uses*.

Planning Area 2 (PA 2) encompasses approximately 43.7 area located in the southwestern portion of the Specific Plan Area. Planning Area 2 is bordered on the north by Inland Empire Boulevard, on the south by the I-10 Freeway, on the west by North Vineyard Avenue, and on the east by the Cucamonga Creek Channel. The Urban Commercial designation of Planning Area 2 allows for a range of commercial uses that benefit from the property's adjacency to the I-10 Freeway and the ONT Airport. Permitted, conditionally permitted, and ancillary uses within the Urban Commercial designation are listed at SPA 5-1, *Permitted, Conditional, and Ancillary Uses*. Planning Area 2 is designed as a highly active area offering a variety of market-driven commercial uses such as retail and fast food restaurants. Up to 200 overnight lodging rooms

also are permitted in Planning Area 2, with the intention of serving the surrounding community and region, such as visitors to the nearby Ontario Convention Center and the ONT Airport. For the purposes of this analysis, it is assumed that PA 2 would be constructed and occupied by 2020.

Planning Area 3 (PA 3) comprises approximately 25.3 acres located in the southeastern portion of the Specific Plan Area. As shown in Exhibit 1-C, Planning Area 3 is bordered on the north by Inland Empire Boulevard, on the south by the I-10 Freeway, on the west by the Deer Creek Channel, and on the east by Archibald Avenue. Similar to Planning Area 2, the Urban Commercial designation of Planning Area 3 allows for a range of commercial uses that benefit from proximity to transportation corridors. Located closer to the SPA's proposed Urban Residential area (within Planning Area 4), and to the potential alignment of the Gold Line transit corridor, Planning Area 3 is envisioned to offer smaller, pedestrian-oriented retail uses. Up to 400 overnight lodging rooms are also permitted in Planning Area 3. Similar to PA 2, specific tenants were unknown at the time of this analysis. For the purposes of this analysis, it is assumed that PA 3 would be constructed and occupied by 2020.

Planning Area 4 (PA 4) comprises approximately 21.4 acres located in the southeastern portion of the Specific Plan area, and would contain Urban Residential uses. As shown in Exhibit 1-B, this area is bordered on the north by San Bernardino County Flood Control District (SBFCD) facilities, on the south by Inland Empire Boulevard, on the west by the Deer Creek Channel, and on the east by Planning Area 5. The Urban Residential designation of Planning Area 4 allows for high-density and medium-high density residential land uses (for-sale or for-rent multi-family residential units). Urban Residential uses implemented under the SPA would be within walking distance to a variety of shopping and employment opportunities, Cucamonga-Guasti Regional Park, and the potential Gold Line transit corridor. For the purposes of this analysis, it is assumed that Planning Area 4 would be constructed and occupied by 2020.

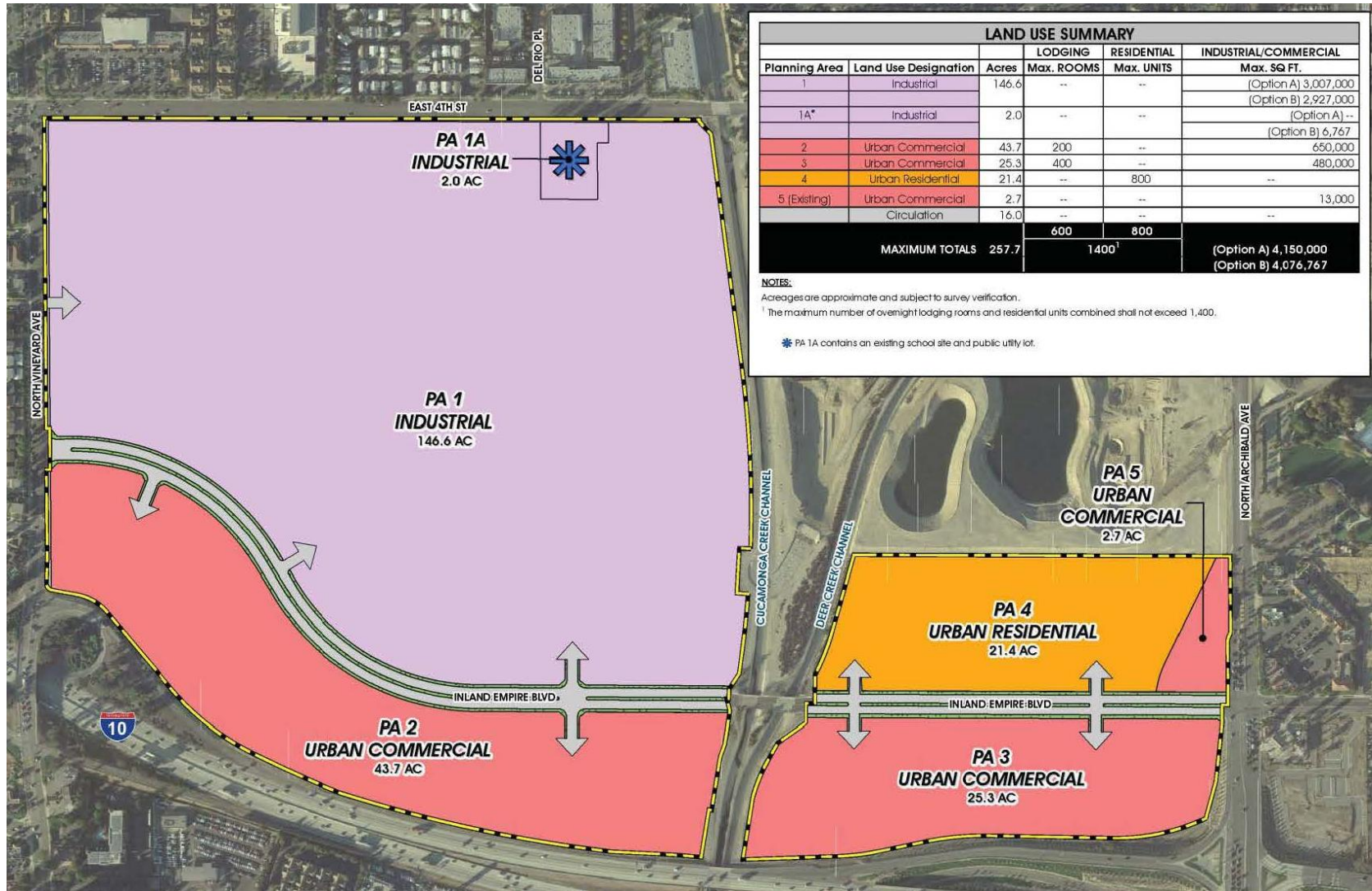
Planning Area 5 (PA 5) encompasses 2.7 acres and is located at the northwest corner of Archibald Avenue and Inland Empire Boulevard. The site is currently developed with retail and service commercial uses, including fast food restaurants, a convenience store, and a self-serve fueling station. For the purposes of this analysis, PA 5 is considered to be fully developed and generating quantifiable emissions as shown in Section 2.9.

EXHIBIT 1-B: EXISTING LAND USES



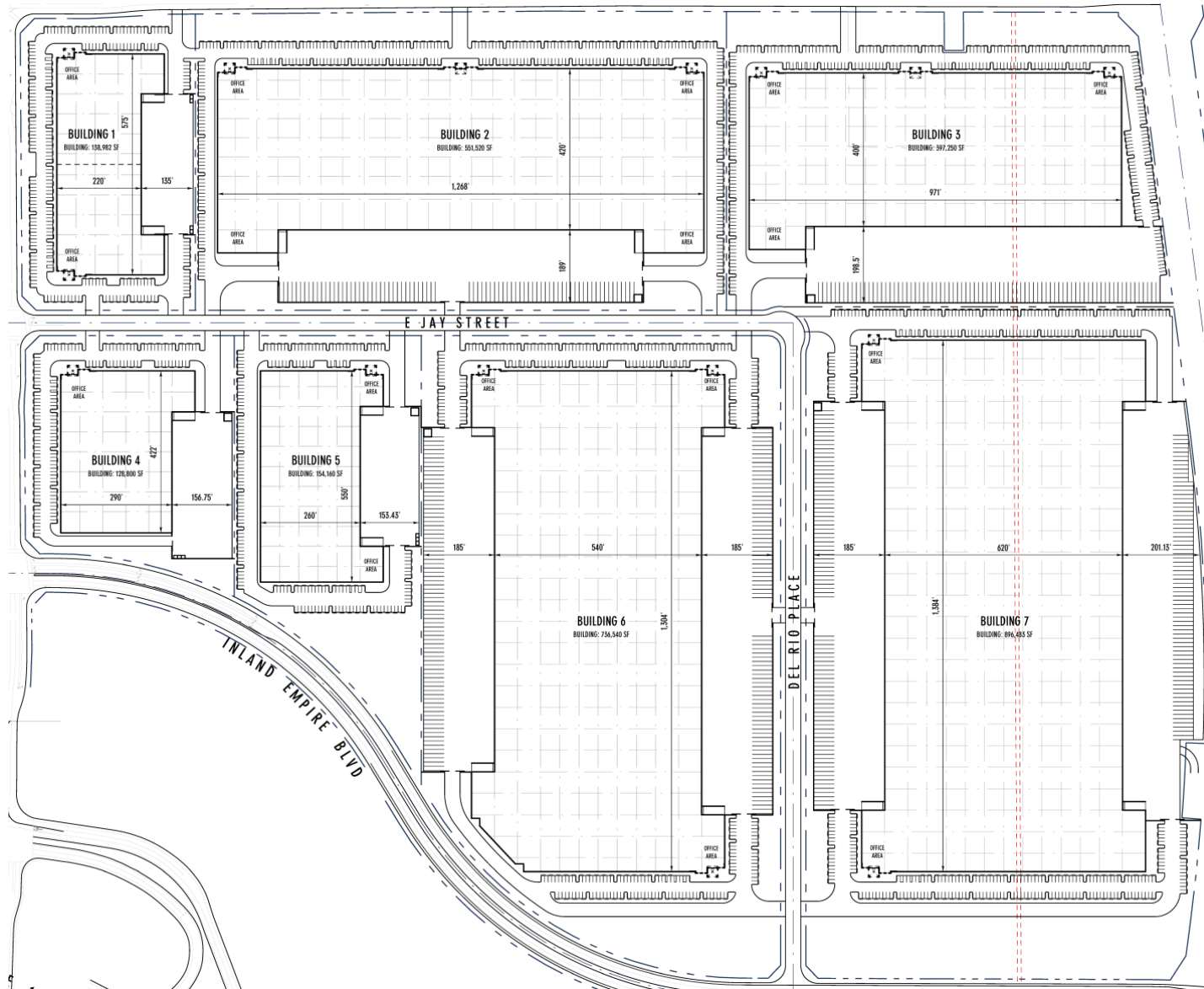
Source: Figure 3.3-1, Applied Planning, Inc.

EXHIBIT 1-C: PLANNING AREAS



Source: Figure 3.4-1, Applied Planning, Inc.

EXHIBIT 1-D: SITE PLAN (OPTION A)



1.4 PROJECT DESIGN FEATURES

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Meredith SPA. Planning Areas 1 through 4 would provide sustainable design features necessary to achieve a “Certified” rating under the United States Green Building Council’s Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- Industrial land uses within the Specific Plan would incorporate the use of solar panels, providing a minimum of 1,600,000 kWh per year of electricity generation, for use within the office portions of industrial buildings;
- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines (e.g., electric or natural gas).
- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:
 - Pedestrian connections shall be provided to surrounding areas consistent with the City’s General Plan. Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. The Project would provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. The Project would minimize barriers to pedestrian access and interconnectivity
 - The Project’s mixed-use configuration and proposed collocation of Industrial, Urban Commercial and Urban Residential land uses together with supporting amenities would tend to decrease the propensity for, and length of commuter vehicle travel.
- To reduce water demands and associated energy use, subsequent development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)¹. Development proposals within the Specific Plan Area would also be required to implement the following:
 - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the Meredith SPA and/or City requirements;
 - Use of water-efficient irrigation techniques consistent with provisions of the Meredith SPA and/or City requirements;
 - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

¹ Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

2 BACKGROUND

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2011. For the Year 2011 the sum of these emissions totaled approximately 25,285,543 gigagrams (Gg) Carbon Dioxide Equivalent (CO₂e²)(11) (12). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

² The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2011. The primary greenhouse gas emitted by human activities in the United States was CO₂, representing approximately 83 percent of total greenhouse gas emissions (13). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION³

Emitting Countries	GHG Emissions (Gg CO₂e)
China	8,715,307
United States	6,665,700
European Union (27 member countries)	4,550,212
Russian Federation	2,320,834
India	1,725,762
Japan	1,307,728
Total	25,285,543

State of California

CARB compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2008 greenhouse gas emissions inventory, California emitted 474 Million Metric Ton of Carbon Dioxide Equivalent (MMTCO₂e) including emissions resulting from imported electrical power in 2008 (14). Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute (15), California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 MMTCO₂e excluding emissions related to imported power.

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO₂ (Carbon Dioxide), N₂O (Nitrous Oxide), CH₄ (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (16).

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity.

³ Used <http://unfccc.int> data for Annex I countries. Consulted the <http://www.eia.gov> site to reference Non-Annex I countries such as China and India.

Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor to the U.S. emissions inventory total. In 2004, California is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent (CO₂e) greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and 2004, California has significantly slowed the rate of growth of greenhouse gas emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls(15).

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-2 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential values; Global Warming Potential (GWP) values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-2. As shown in the table below, GWP range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride.

TABLE 2-2: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14,800
HFC-134a	14.6	1,430
HFC-152a	1.5	124
Sulfur Hexafluoride (SF6)	3,200	22,800

Source: Environmental Protection Agency (EPA) 2013
(URL: <http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/2013-data-elements.pdf>)

Water Vapor: Water vapor (H₂O) is the most abundant, important, and variable greenhouse gas 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 to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. 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 are also dynamics that hold 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).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide: Carbon dioxide (CO₂) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (17).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO₂ concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the 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(18).

Methane: Methane (CH₄) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N₂O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (19).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide 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 used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: 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 are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, 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 (CHF₃), HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (20). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur 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 (CF₄) and hexafluoroethane (C₂F₆). The U.S. EPA estimates that concentrations of CF₄ in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

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.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006

(California Climate Change Center 2006), that while not adequate for a CEQA project-specific or cumulative analysis, is generally instructive about the statewide impacts of global warming.

The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of global climate change trends in California.

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts

According to the reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report, the impacts of global warming in California have the potential to include, but are not limited to, the following areas:

Air Quality/General Thermal Effects

According to Cal EPA, higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become difficult to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO₂ levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O₃ pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the

abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (21). Exhibit 2-A presents the potential impacts of global warming.

Water Vapor: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

Carbon Dioxide: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (22).

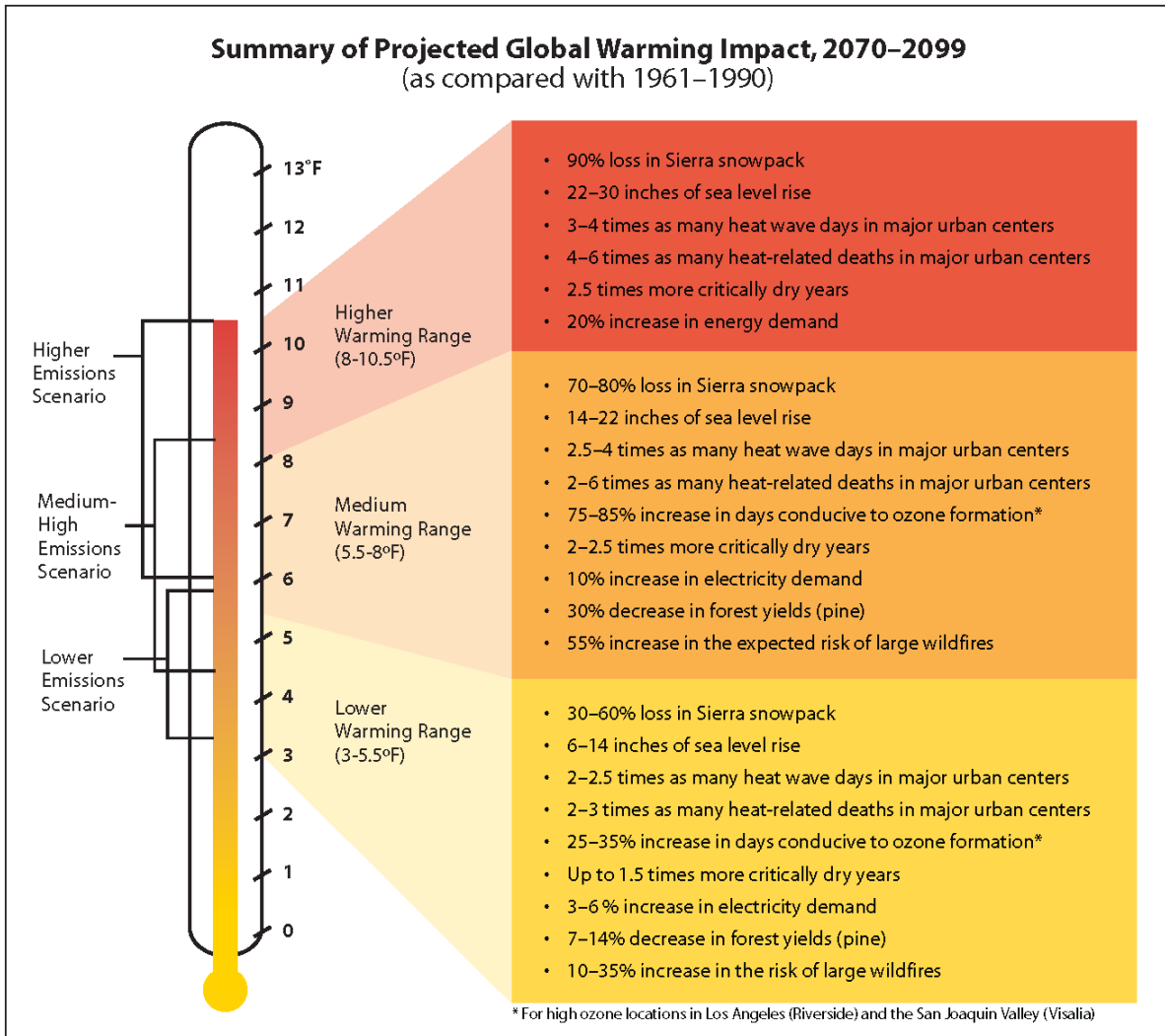
Specific health effects associated with directly emitted GHG emissions are as follows:

Methane: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (23).

Nitrous Oxide: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage(23).

Fluorinated Gases: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (22).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT



Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (24).

2.7 REGULATORY SETTING

International Regulation and the Kyoto Protocol:

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming 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 greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act (25) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 (2007)), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

Title 24 Energy Standards:

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (26) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Commission's

most recent standard, 2013 Building Energy Efficiency Standard, is 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Some improved measures in the Standards include:

Residential:

- Solar-ready roofs to allow homeowners to add solar photovoltaic panels at a future date
- More efficient windows to allow increased sunlight, while decreasing heat gain
- Insulated hot water pipes, to save water and energy and reduce the time it takes to deliver hot water
- Whole house fans to cool homes and attics with evening air reducing the need for air conditioning load
- Air conditioner installation verification to insure efficient operation

Nonresidential:

- High performance windows, sensors and controls that allow buildings to use "daylighting"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date
- Cool roof technologies

CALGreen

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (27). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There

are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

The 2013 CALGreen includes additions and amendments to the water efficiency standards for non residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen has also been rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings.

California Assembly Bill No. 1493 (AB 1493):

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (28). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA

and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by “pooling” California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California’s standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (CARB 2009, <http://www.arb.ca.gov/regact/2009/ghgpv09/ghgpvisor.pdf>) both of these programs are aimed at light-duty auto and light-duty trucks.

Executive Order S-3-05:

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (29). It declares that increased temperatures could reduce the Sierra’s snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California’s resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (30). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO₂ equivalent was established as the emissions limit for 2020. For comparison, CARB’s estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. “Business as usual” conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO₂ emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan’s recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-3 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO₂e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state’s reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons tons of CO₂e (or approximately 1.2 percent of the GHG reduction target).

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 30 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and California Climate Action

TABLE 2-3: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

<i>Recommended Reduction Measures</i>	<i>Reductions Counted toward 2020 Target of 169 MMT CO₂e</i>	<i>Percentage of Statewide 2020 Target</i>
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets ¹	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined ²	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO₂e: million metric tons of CO₂e

¹Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

²According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO₂e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

Team early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO₂ equivalent (MTCO₂e) to 545 MTCO₂e. (30) Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MTCO₂e, or 21.7 percent (down from 30 percent), from the BAU condition.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 MTCO₂e. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 MTCO₂e, or approximately 16 percent (down from 30 percent), from the BAU condition. (30) (31)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MTCO₂e 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO₂e. (32) Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO₂e (down from 509 MTCO₂e), or approximately 15.3 percent (down from 30 percent), from the BAU condition. (30) (31) (32)

Although CARB has released an update to the Scoping Plan and reduction targets from BAU, it is still appropriate to utilize the previous 30% reduction from BAU since the modeling tools available are not able to easily segregate the inclusion of the renewable portfolio standards, and Pavley requirements that are now included in the revised BAU scenario.

California Senate Bill No. 1368 (SB 1368):

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (31). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

Senate Bill 97 (SB 97):

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009 (32). The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a)“A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards.”

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a Project’s incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a Project’s cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Specific GHG language incorporated in the Guidelines' suggested Environmental Checklist (Guidelines Appendix G) is as follows:

VII. GREENHOUSE GAS EMISSIONS

Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Executive Order S-01-07:

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (33). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

Senate Bills 1078 and 107 and Executive Order S-14-08:

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (34). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (33). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (35).

Senate Bill 375:

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation(36). SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs, 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 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (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, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released, this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board (CARB) for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds:

Separate from its Scoping Plan approved in December of 2008 (37), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the

state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, a quantitative threshold of 7,000 metric tons (MT) of CO₂e per year for operational emissions (excluding transportation), and performance standards yet to be defined for construction and transportation emissions are under consideration. However, CARB's proposal is not yet final, and thus cannot be applied to the Project.

South Coast Air Quality Management District Recommendations for Significance Thresholds:

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc (38). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO₂e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO₂e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a Project where the majority of emissions are related to mobile sources. Thus there is no SCAQMD threshold that can be applied to this Project.

In September 2010(39), the Working Group released additional revisions that consist of the following recommended tiered approach:

- Tier 1 consists of evaluating whether or not the Project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a Project is consistent with a greenhouse gas reduction plan. If a Project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of screening values at the discretion of the lead agency; however they should be consistent for all projects within its jurisdiction. Project-related construction emissions should be amortized over 30 years and should be added back the Project's operational emissions. The following thresholds are proposed for consideration:
 - 3,000 MTCO₂e per year for all land use types
 - or

- 3,500 MTCO₂e per year for residential; 1,400 MTCO₂e per year for commercial; or 3,000 MTCO₂e per year for mixed-use projects
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3: A project-level efficiency target of 4.8 MTCO₂e per service population as a 2020 target and 3.0 MTCO₂e per service population as a 2035 target. The recommended plan-level target for 2020 is 6.6 MTCO₂e and the plan level target for 2035 is 4.1 MTCO₂e
- Tier 5 involves mitigation offsets to achieve target significance thresholds

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heater, forestry, and manure management projects, none of which are required by the Project

2.8 CITY OF ONTARIO

As summarized at Tables 2-4 and 2-5, the Project would be consistent with applicable Policy Plan goals and policies; and would comply with and implement Policy Plan EIR Mitigation Measures addressing reduction of air pollutants emissions in general, and GHG emissions in specific.

TABLE 2-4: POLICY PLAN GOALS AND POLICIES CONSISTENCY ANALYSIS

Goals/Policies		Remarks
Environmental Resources Element		
ER3 Energy		
Goal ER3: Reduction in energy demand in its relation to conservation, transportation, development, and generation		
Policies		Remarks
ER3-1	<i>Conservation Strategy.</i> We promote conservation as the first strategy to be employed to meet applicable energy-saving standards.	Consistent: Pursuant to the EIR Mitigation Measures, the Project Applicant shall submit energy usage calculations demonstrating that the increment of Project development for which building permits are being requested will achieve 5% efficiency beyond the incumbent California Building Code Title 24 requirements. Please refer also to Remarks at Policy ER 4-1. Based on the preceding, the Project is considered consistent with Policy ER3-1.
ER3-3	<i>Transportation Energy.</i> We promote the development that reduces the energy associated with getting people to and from buildings. Community facilities should be sited in areas accessible to public transportation.	<p>Consistent: The Project’s immediate access to improved roadways and freeways would tend to reduce the length of vehicle trips and vehicle miles traveled (VMT), with correlating reductions in transportation energy demands.</p> <p>The Project’s mixed-use land use concept collocates residential and business/commercial–retail uses, thereby acting to reduce vehicle miles traveled (VMT) locally and within the region; with corollary reductions in vehicle energy consumption and vehicular-source air pollutant emissions, including GHG emissions.</p> <p>Alignment of the potential Gold Line transit corridor as indicated in the Policy Plan (Policy Plan Mobility Element, Figure M-4, and Transit Plan) would parallel the Cucamonga Creek Channel, roughly bisecting the Specific Plan area. Gold Line transit corridor opportunities made available to the Project site would provide alternatives to use of personal vehicles for residents, employees, and patrons traveling to and from the Specific Plan Area, thereby reducing <i>Transportation Energy</i> demands, and VMT and vehicular-source GHG emissions.</p> <p>Pedestrian connections provided by the Project would encourage people to walk instead of driving, further reducing transportation energy demands. Based on the preceding, the Project is considered consistent with Policy ER3-3.</p>
ER3-6	<i>Generation-Renewable Sources.</i> We promote the use of renewable energy sources (e.g., solar, wind, biomass) in public and private sector development.	Consistent: Industrial land uses proposed by the Project would provide at a minimum 1,600,000 kWh per year of electricity generation through implementation of on-site solar generation. On this basis, the Project is considered consistent with Policy ER3-6. Please refer also to Remarks at Policy ER 4-1.

Goals/Policies		Remarks
ER4 Air Quality		
Goal ER4: Improved indoor and outdoor air quality and reduced locally generated pollutant emissions		
ER4-1	<p><i>Land Use.</i> We reduce GHG and other local pollutant emissions through compact, mixed use, transit-oriented development that improves the regional jobs/housing balance.</p>	<p>Consistent: Consistent: The Project Economic/Fiscal Impact Analysis substantiates that employment opportunities created by the Project would likely increase the City’s average employment/housing ratio from 2.30 jobs/households currently, to approximately 2.36 jobs/households within the Project’s estimated 20-year development time frame (Economic/Fiscal Impact Analysis, p. ES-4). The Project would therefore support local, county, sub-regional and regional goals furthering employment/housing balance.</p> <p>The Project’s mixed-use land use concept collocates residential and business/commercial–retail uses, thereby acting to reduce vehicle miles traveled (VMT) locally and within the region; with corollary reductions in vehicle energy consumption and vehicular-source air pollutant emissions, including GHG emissions. The Project also accommodates a Class II Bikeway Corridor along Inland Empire Boulevard in accordance with the Policy Plan Mobility Element, and provides sidewalks and pathways adjacent to roadways to promote pedestrian activity. Alternative transportation modes provided by and facilitated through the Project also act to reduce VMT and vehicular-source GHG emissions.</p> <p>More specifically, alignment of the potential Gold Line transit corridor as indicated in the Policy Plan (Policy Plan Mobility Element, Figure M-4, and Transit Plan) would parallel the Cucamonga Creek Channel, roughly bisecting the Specific Plan area. Gold Line transit corridor opportunities made available to the Project site would provide alternatives to use of personal vehicles for residents, employees, and patrons traveling to and from the Specific Plan Area, thereby reducing VMT and vehicular-source GHG emissions.</p> <p>Industrial land uses proposed by the Project would incorporate solar panels providing electricity to industrial building office areas acting to reduce consumption of fossil fuels and related generation of GHG emissions. Additionally, all primary structures within the Specific Plan area would be designed to achieve or surpass Leadership in Energy and Environmental Design (LEED) Certification Minimum Program Requirements (MPRs).</p> <p>The plant palette for the Project incorporates water-efficient/drought tolerant species native to Southern California or naturalized to the arid Southern California climate; and use of turf would be minimized throughout the Specific Plan Area. In this manner, landscaping implemented by the Project would provide for efficient use of water</p>

Goals/Policies		Remarks
		resources. Reduced water consumption translates to reduced energy consumption with related reductions in GHG emissions. Further, “purple pipe” landscape irrigation systems would be implemented throughout the Specific Plan area, and only recycled/reclaimed water would be used for landscape irrigation or other non-potable purposes, thereby reducing demands on potable water resources. Based on the preceding, the Project is considered consistent with Policy ER4-1.
ER4-2	<i>Sensitive Land Uses:</i> We prohibit the future citing of sensitive land uses within the distances defined by the California Air Resources Board for specific source categories without sufficient mitigation.	Consistent: As substantiated in the Project AQIA, mitigated Project construction-source air pollutant emissions would not result in or cause CAAQS or NAAQS violations; and further, that unmitigated Project operational-source air pollutant emissions would not result in or cause CAAQS or NAAQS violations. The Project HRA substantiates the Project-source DPM emissions would not cause or result in potentially significant health hazards. The Project Freeway-Source HRA substantiates that effects of freeway-source pollutants at the Project’s Urban Residential land uses would be less-than-significant as mitigated. Based on the preceding, the Project is considered consistent with Policy ER4-2.
ER4-3	<i>Greenhouse Gases (GHG) Emissions Reduction:</i> We will actively pursue the reduction of GHG emissions in accordance with regional, state, and federal regulations.	Consistent: The Project GHG Analysis substantiates that Project GHG emissions would be reduced by approximately 32.81% when compared to the BAU scenario, and would therefore surpass the statewide GHG emissions reductions of 30 percent established under AB32 and required by the Policy Plan EIR. On this basis, the Project is considered consistent with Policy ER4-3.
ER4-4	<i>Indoor Air Quality:</i> We will require all building material, including interior finishes, in new development and major renovations meet the air quality standards and regulations set forth by the South Coast Air Quality Management District.	Consistent: Pursuant to the EIR Mitigation Measures, only “Zero-Volatile Organic Compounds” paints (no more than 150 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used. On this basis, the Project is considered consistent with Policy ER4-4.
ER4-5	<i>Mobile Sources in Interior Spaces:</i> We encourage the use of low or zero emissions interior mobile equipment within commercial and industrial buildings	Consistent: Pursuant to the Project Description, all on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines (e.g., electric or natural gas). On this basis, the Project is considered consistent with Policy ER4-5.
ER4-6	<i>Transportation:</i> We promote mass transit and nonmotorized mobility options (walking, biking) to reduce air pollutant emissions	Consistent: Please refer to Remarks at ER3-3 and ER 4-1.

Goals/Policies		Remarks
ER4-7	<i>Particulate Matter:</i> We support efforts to reduce particulate matter to meet state and federal clean air standards	Consistent: As substantiated in the Project AQIA With the application of Mitigation Measures, Project construction-source particulate matter (PM ₁₀ /PM _{2.5}) emissions would meet state and federal clean air standards (CAAQS and NAAQS). Unmitigated Project operational-source PM ₁₀ /PM _{2.5} emissions would meet applicable CAAQS and NAAQS. On this basis, the Project is considered consistent with Policy ER4-7.
ER4-9	<i>Tree Planting:</i> We support the protection of healthy trees within the City and the planting of new trees to increase carbon sequestration and help the regional/local air quality	Consistent: As detailed in the Meredith SPA, Perimeter and interior streets would be landscaped with a combination of evergreen and deciduous trees (including flowering varieties), shrubs, and groundcovers in an aesthetically pleasing manner to establish the Project design theme and to complement existing surrounding development. Trees planted by the Project would also act to increase carbon sequestration and improve the regional/local air quality.

TABLE 2-5: POLICY PLAN EIR MITIGATION MEASURES COMPLIANCE

Mitigation Measures		Remarks
5.3 Air Quality		
3-1	The City of Ontario Building Department shall require that all new construction projects incorporate feasible mitigation measures to reduce air quality emissions.	Compliant: Pursuant to the EIR Mitigation Measures mitigation measures the Project’s air quality impacts are reduced to the extent feasible. It is further noted that air pollutant emissions generated by the Project would be substantially reduced when compared to air pollutant emissions generated by the currently entitled 1981 Meredith International Centre Specific Plan; and/or development of the subject site anticipated and evaluated under the Policy Plan EIR. Based on the preceding, the Project would implement and comply with Policy Plan EIR Mitigation Measure 3-1.
3-2	The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit, stops, bike paths, and/or pedestrian paths (e.g., sidewalks).	Compliant: As discussed herein, the Project would provide, and is provided access to alternative modes of transportation, such as transit, stops, bike paths, and/or pedestrian paths. Please refer also to Table X, Remarks at ER3-3, ER4-1, and ER4-6. Based on the preceding, the Project would implement and comply with Policy Plan EIR Mitigation Measure 3-2.

Mitigation Measures		Remarks
3-3	The City of Ontario shall evaluate new development proposals within the City for potential incompatibilities with regard to the California Air Resources Board's <i>Air Quality and Land Use Handbook: A Community Health Perspective</i> (April 2005). New development that is inconsistent with the recommended buffer distances shall only be approved if feasible mitigation measures such as high efficiency Minimum Efficiency Reporting Value filters have been incorporated into the project design to protect future sensitive receptors from harmful concentrations of air pollutants as a result of proximity to existing air pollution sources.	Compliant: Urban Residential land uses proposed by the Project are located approximately 1,000 feet northerly of the I-10 Freeway, and therefore comply with ARB's Air Quality and Land Use Handbook recommendation to: "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day." Mitigation included in the EIR requires that residential units within the Project site be provided high efficiency filters. The Project Freeway-source HRA substantiates that mitigated freeway-source air pollutant emissions received at the Project Urban Residential land uses would be less-than-significant. Based on the preceding, the Project would implement and comply with Policy Plan EIR Mitigation Measure 3-3.
5.6 Global Climate Change		
6-1	The City of Ontario shall prepare a Climate Action Plan within 18 months after adopting The Ontario Plan. The goal of the Climate Action Plan shall be to reduce GHG emissions from all activities within the City boundaries to support the State's efforts under AB 32 and to mitigate the impact of climate change on the City, State, and world. Once completed, the City shall update The Ontario Plan and associated policies, as necessary, to be consistent with the Climate Action Plan and prepare a subsequent or supplemental Environmental Impact Report, if new significant impacts are identified.	Compliant: The Project GHG Analysis substantiates that Project GHG emissions would be reduced by approximately 32.81% when compared to the BAU scenario, and would therefore surpass the statewide GHG emissions reductions of 30 percent established under AB32. The Project would therefore support and would not conflict with the City CAP. Further, the Project does not propose or require elements or operations that would otherwise interfere with or obstruct City development and adoption of its CAP. Based on the preceding, the Project would implement and comply with Policy Plan EIR Mitigation Measure 6-1.
6-2	The Climate Action Plan shall include specific measures to achieve the GHG emissions reduction targets identified in Mitigation Measure 6-1. The Climate Action Plan shall quantify the approximate greenhouse gas emissions reductions of each measure and measures shall be enforceable.	Compliant: Please refer to Remarks at 6-1.
6-3	The City of Ontario will amend the Municipal Code within 18 months after adopting The Ontario Plan, with provisions implementing the GHG emissions reduction concepts outlined in the <i>Mitigation Monitoring Requirements</i> .	Compliant: The Project does not propose or require elements or operations that would obstruct with or otherwise interfere with City amendment of the Municipal Code implementing the GHG emissions reduction concepts outlined in the Policy Plan EIR. Please refer also to Remarks at 6-1. Based on the preceding, the Project would implement and comply with Policy Plan EIR Mitigation Measure 6-3.

Mitigation Measures		Remarks
6-4	Measures listing in Mitigation Measure 6-2 and 6-3 shall be considered by the City while reviewing all new development, as appropriate, between the time of adoption of the Ontario Plan and adoption of the Climate Action Plan (CAP).	Compliant: Please refer to Remarks at 6-1.
6-5	Pursuant to a goal of overall consistency with the Sustainable Communities Strategies, the City of Ontario shall evaluate new development for consistency with the development pattern set forth in the Sustainable Communities Strategies plan, upon adoption of the plan by the Southern California Association of Governments.	Compliant: The Project incorporates and supports Southern California Association of Governments Regional Transportation Plan (RTP) Sustainable Communities Strategies (SCS) Goals and Policies. Please refer to EIR Section 4.1, Land Use, Table 4.1-6, and “Meredith International Centre Specific Plan Amendment Project Consistency with SCAG RTP/SCS Regional Goals.” Based on the preceding, the Project would implement and comply with Policy Plan EIR Mitigation Measure 6-5.
6-6	The City of Ontario shall participate in the County of San Bernardino's Green Valley Initiative.	Compliant: As substantiated within this Analysis and within the EIR in total, the Project would be compatible with and would support the Green Valley Initiative mission “to transform Riverside and San Bernardino counties into a region that integrates people and business with natural resources to create jobs, greater opportunity, and a higher quality of life.” The Project does not propose or require elements or operations that would obstruct or otherwise interfere with City participation in the County of San Bernardino's Green Valley Initiative.

2.9 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

In order to assess the significance of a Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the Project considered herein would directly or indirectly affect global climate change.

AB 32 states, in part, that “[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California.” Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change is considered to be a cumulative impact.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to: a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Or b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Based on the above factors (and particularly the adopted addition of CEQA Guideline § 15064.4, subdivisions (b)(2) and (b)(3), the City of Ontario (the lead agency for the proposed project) has

determined it is appropriate to rely on AB 32 implementation guidance, as stated in the Ontario Plan Draft EIR. In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset its contribution to the cumulative climate change problem. Accordingly, the project's GHG emission levels will be analyzed to determine whether project approval would impede compliance with the GHG emissions reduction mandate established by AB 32 which requires that California's GHG emissions limit be reduced to 1990 levels by 2020. As noted in the scoping Plan (45), and identified in TOP, a reduction of 30 percent below the "business as usual" scenario is required to meet the goals of AB 32 (46).

Specifically, to understand what percentage reduction in emissions would be required to achieve AB 32's goals, CARB first determined that the 1990 baseline GHG emission level is 427 (MMT) CO₂E. CARB then estimated the statewide emissions that would be generated in the 2020 assuming (see Appendix F of CARB 2008). CARB's prediction for 2020 emissions is 596 MMT CO₂E, assuming "business as usual." The 2020 business-as-usual forecast does not take any credit for reductions from GHG measures included in the Scoping Plan, including those enacted before AB 32. Accordingly, AB 32's mandated decrease in GHG emissions from 596 to 427 MMT CO₂E is equivalent to a 28.5% emissions reduction or approximately 30%. Thus, this AB 32 mandate would require an approximate 30% reduction in emissions relative to the 2020 business-as-usual scenario by 2020.

Pursuant to Guidelines Section 15064(h)(3) for a project consistent with AB 32's goal, which would require an approximate 30 percent or greater reduction from BAU, project specific and cumulative climate change impacts would be less than significant. This approach is consistent with guidance released by SCAQMD, Riverside County, San Joaquin Air Pollution Control District (SJVAPCD) and Bay Area Air Quality Management District (BAAQMD). The AB 32 consistency threshold was also upheld in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327. Section 15064.7 of the CEQA Amendments states that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significant previously adopted or recommended by other public agencies or recommended by experts."

3 PROJECT GREENHOUSE GAS IMPACT

3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL™ EMPLOYED TO ESTIMATE GHG EMISSIONS

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod) v2013.2.2. The purpose of this model is to more accurately calculate air quality and greenhouse gas (GHG) emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures (40). The July October CalEEMod was employed to quantify GHG emissions for this Project. The CalEEMod model includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

3.2 EXISTING PROJECT SITE GREENHOUSE GAS EMISSIONS

Planning Area 5 is currently developed with approximately 13,000 square feet of retail and service commercial uses, including fast food restaurants, a convenience store, and a self-serve fueling station. Planning Area 5 encompasses 2.7 acres and is located at the northwest corner of Archibald Avenue and Inland Empire Boulevard. Air pollutant emissions generated by existing land uses and operations within Planning Area 5 are summarized at Table 3-1. Emissions were estimated based on CalEEMod defaults for 13,000 square feet of shopping center land use.

TABLE 3-1: EXISTING LAND USE ANNUAL GHG EMISSIONS SUMMARY

Emission Source	Emissions (metric tons per year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
Area	3.20e-4	--	--	3.40e-4
Energy	49.84	2.50e-3	5.40e-4	50.06
Mobile Sources	545.94	0.03	--	546.47
Waste	2.77	0.16	--	6.21
Water Usage	7.98	0.07	1.74e-3	10.01
Total CO₂E (All Sources)	612.75			

Source: CalEEMod model output, See Appendix 3.1 for detailed model outputs.

Note: Totals obtained from CalEEMod and may not total 100% due to rounding.

3.3 PROJECT RELATED GREENHOUSE GAS EMISSIONS

3.3.1 CONSTRUCTION EMISSIONS

Construction activities associated with the proposed Project will result in emissions of CO₂ and CH₄ from construction activities. The report, [Meredith International Centre Air Quality Impact](#)

Analysis (Urban Crossroads, Inc., 2014) (Project AQIA) provides additional details on the specific construction-related inputs programmed in the CalEEMod model (43).

Project construction activities would generate the GHG emissions CO₂ and CH₄. Construction-source GHG emissions are quantified and amortized over the life of the Project. To this end, and consistent with SCAQMD-recommended methodology, greenhouse gas emissions generated by Project construction activities were totaled and then divided by 30, reflecting an assumed 30 year Project life. The resulting quotient was then summed with annual operational phase GHG emissions.

3.3.2 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO₂, CH₄, and N₂O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution
- On-Site Equipment Emissions

3.3.2.1 AREA SOURCE EMISSIONS

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.3.2.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO₂ and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were used.

3.3.2.3 MOBILE SOURCE EMISSIONS

Vehicles

Project operational (vehicular-source) greenhouse gas impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational greenhouse gas quality impacts derive primarily from vehicle trips generated by the Project – approximately 90.04 percent (by weight) of all Project operational-source emissions are generated by mobile sources (vehicles). Trip characteristics available from the report, Meredith International Centre Specific Plan Amendment Traffic Impact Analysis (Linscott Law & Greenspan Engineers) 2014 were utilized in this analysis (19). It should be noted that the Project’s traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study intersections. Notwithstanding, for purposes of this greenhouse gas study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis. The Project will reduce vehicle miles traveled by: designing a Project that promotes a suburban center setting and increasing the diversity in land uses. Thus the appropriate CalEEMod parameters have been enabled to ensure appropriate credit is taken for these design features.

For Planning Area 1 (Industrial land use), the vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project would be approximately 78.60% passenger cars and approximately 21.40% total trucks. For analysis purposes, 37.38% of all trucks are assumed to be Light-Heavy-Duty (LHD), 18.22% of all trucks are assumed to be Medium-Heavy-Duty (MHD), and 44.40% of all trucks are assumed to be Heavy-Heavy-Duty (HHD). This proportional truck mix by axle type is based on information provided in the Project’s traffic study. The Project was input as a single category or type of land-use (General Light Industry) in the CalEEMod™ emissions inventory

For Planning Area 1 (High-Cube Warehouse land use), the vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 79.58% passenger cars and approximately 20.42% total trucks. For analysis purposes 16.94% of all trucks are assumed to be Light-Heavy-Duty (LHD), 22.71% of all trucks are assumed to be Medium-Heavy-Duty (MHD), and 60.35% of all trucks are assumed to be Heavy-Heavy-Duty (HHD). The Project was input as a single category or type of land-use (Warehouse-No Rail) in the CalEEMod™ emissions inventory

For Planning Areas 2, 3, 4 & 5, CalEEMod defaults were utilized for fleet mix and trip rates from the Project’s traffic study were utilized.

Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results

in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Fontana Commerce Development Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this GHGA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (46). The SCAQMD asserts that the model-default trip length in CalEEMod and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this GHGA report generate vehicular-source emissions that would represent a maximum impact scenario Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates (47)(48) (49). To maintain analytic consistency and establish the maximum impact

scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project.

For passenger car trips, the San Bernardino County CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the limits of the South Coast Air Basin (SCAB) as follows. It is appropriate to terminate the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative, this approach is also consistent with professional industry practice.

- Project site to the Port of Los Angeles/Long Beach: 51 miles;
- Project site to Banning Pass: 39 miles;
- Project site to San Diego County line: 50 miles;
- Project site to Cajon Pass: 11 miles;
- Project site to downtown Los Angeles: 47 miles.

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, and the remainder as distribution trips to all other locations, the average truck trip length is calculated as 44 miles.

For industrial land uses, two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars within San Bernardino County and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 44 miles and a fleet mix illustrative of a light industrial or high-cube warehouse (depending on the modeled land use) as described previously. The estimated emissions resulting from vehicle operations are summarized in Table 3-7 (presented later in this report.) Detailed emission calculations are provided in Appendix “3.1”.

3.3.2.4 SOLID WASTE

Industrial, commercial retail, and residential land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod model using default parameters.

3.3.2.5 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

3.3.2.6 ON-STE EQUIPMENT EMISSIONS

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (50); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space.

For this particular Project, on-site modeled operational equipment for light industrial land uses includes three 200 hp yard tractors operating at 4 hours a day for 260 days of the year⁴, using a non-diesel fuel. The emissions associated with on-site equipment were calculated using the CalEEMod model. On-site modeled operational equipment for high-cube warehouse land uses includes nine 200 hp yard tractors operating at 4 hours a day for 260 days of the year, using a non-diesel fuel. The emissions associated with on-site equipment were calculated using the CalEEMod model.

3.4 EMISSIONS SUMMARY

3.4.1 EXISTING EMISSIONS

The total amount of Existing Land use-related GHG emissions from direct and indirect sources combined would total 612.75 MTCO₂e as year as shown on Table 3-1 as previously presented.

3.4.2 BAU SCENARIO

The BAU scenario presented here is consistent with the California Air Resources Board's definition of BAU⁵. More specifically, the BAU scenario evaluated herein reflects development of the Project site absent design features, operational programs, mitigation measures, and state requirements established by AB 32 which would collectively act to reduce GHG emissions.

The total amount of Project-related GHG emissions under a BAU scenario, without accounting for any design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total approximately 109,828.93 MTCO₂e, as shown on Table 3-2.

3.4.3 PROJECT SCENARIO

Annual Project Scenario GHG emissions are summarized at Table 3-3. Table 3-3 reflects Project GHG emissions with incorporation of the previously noted GHG-reducing attributes and

4 4 hour daily on-site operation of the yard trucks is based on the Port of Long Beach Air Emissions Inventory document (July 2013)

5 CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002-2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

requirements. As indicated in Table 3-3 Project GHG emissions would be reduced by approximately 32.81% when compared to the BAU scenario. Thus, with implementation of the Project's design features, application of proposed air pollutant mitigation measures, and realization of regulatory developments, the Project's GHG reduction (32.81 %) would exceed the statewide GHG emissions reductions of 30 percent established under AB32 and required by the Ontario Plan Draft EIR.

TABLE 3-2: ANNUAL GREENHOUSE GAS EMISSIONS "BUSINESS AS USUAL" SCENARIO

Emission Source	Emissions (metric tons per year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
Annual construction-related emissions amortized over 30 years	1,1176.61	0.13	--	1,120.30
<i>Planning Area 1 (Light Industrial & High-Cube Warehouse Use)</i>				
Area	0.08	3.70e-4	--	0.09
Energy	5,658.99	0.23	0.07	5,684.27
Mobile (Passenger Cars)	11,121.51	1.24	--	11,147.65
Mobile (Trucks)	35,275.48	1.38	--	35,304.38
On-Site Equipment	553.20	0.05	--	554.41
Waste	611.53	36.14	--	1,370.48
Water Usage	203	1.65	3.84e-2	250.99
Planning Area 1 Sub-total	53,424.55	40.69	0.11	54,312.27
<i>Planning Areas 2, 3, & 4</i>				
Area	205.69	0.03	3.52e-3	207.32
Energy	8,694.73	0.35	0.10	8,733.09
Mobile Sources	44,039.37	4.19	--	44,127.37
Waste	301.88	17.84	--	676.53
Water Usage	529.33	4.29	0.11	652.04
Planning Areas 2, 3, & 4 Sub-total	53,770.99	26.69	0.21	54,396.36
Total CO₂E (All Sources) Planning Areas 1, 2, 3, & 4	109,828.93			

Source: CalEEMod model output, See Appendix 3.1 for detailed model outputs.

Note: Totals obtained from CalEEMod and may not total 100% due to rounding.

Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{*b*}) and is followed by the value of the exponent

TABLE 3-3: ANNUAL GREENHOUSE GAS EMISSIONS 2020 PROJECT SCENARIO WITH APPLICABLE REGULATORY DEVELOPMENTS, DESIGN FEATURES AND MITIGATION

Emission Source	Emissions (metric tons per year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
Annual construction-related emissions amortized over 30 years	1,1176.61	0.13	--	1,120.30
<i>Planning Area 1 (Light Industrial & High-Cube Warehouse Use)</i>				
Area	0.08	2.00e-4	--	0.09
Energy	3,697.17	0.17	0.05	3,717.68
Mobile (Passenger Cars)	6,999.76	0.29	--	7,005.80
Mobile (Trucks)	28,842.18	0.24	--	28,847.24
On-Site Equipment	458.00	0.15	--	461.12
Waste	611.53	36.14	--	1,370.48
Water Usage	120.11	1.32	0.04	157.87
Planning Area 1 Sub-total	38,238.01	38.16	0.06	41,560.28
<i>Planning Areas 2, 3, & 4</i>				
Area	205.69	0.02	3.52e-3	207.3
Energy	5,893.91	0.30	0.08	5,926.33
Mobile Sources	23,947.17	0.84	--	23,964.92
Waste	301.88	17.84	--	676.53
Water Usage	312.01	3.43	0.08	410.13
Planning Areas 2, 3, & 4 Sub-total	30,660.67	22.43	0.17	31,185.04
Total CO₂E (All Sources) Planning Areas 1, 2, 3, & 4	73,865.62			
BAU Scenario Total CO₂E (All Sources)	109,828.93			
Difference/Percent Reduction	35,963.31 / 32.81%			

Source: CalEEMod model output, See Appendix 3.1 for detailed model outputs.

Note: Totals obtained from CalEEMod and may not total 100% due to rounding.

Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as $\times 10^b$) and is followed by the value of the exponent

4 REQUIREMENTS, MITIGATION, FINDINGS, AND CONCLUSIONS

4.1 OTHER REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air pollutant emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions include:

- Global Warming Solutions Act of 2006 (AB32)(2)
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375)(3). Supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities.
- Paveley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (4).
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (5).
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances (6).
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020 (10).

4.2 CONSTRUCTION-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

The Project Air Quality Impact Analysis (AQIA) establishes construction activity mitigation measures that would globally reduce air pollutant emissions generated by subsequent development proposals within the Project site. Although these measures could act to reduce GHG emissions, there is insufficient data to support any reductions associated with the construction activity mitigation measures identified in the AQIA. Thus, as a conservative measure no reduction in GHG emissions are taken for construction activity mitigation measures identified in the AQIA.

4.3 OPERATIONAL-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

The Project AQIA establishes operational activity mitigation measures that would globally reduce air pollutant emissions generated by subsequent development proposals within the Project site. These same measures would act to reduce GHG emissions, and are restated here:

MM AQ-5

Prior to the issuance of building permits, the Project Applicant shall submit energy demand calculations to the City (Planning and Building Departments) demonstrating that the increment of the Project for which building permits are being requested would achieve a minimum 5% increase in energy efficiencies beyond incumbent California Building Code Title 24 performance standards. Representative energy efficiency/energy conservation measures to be incorporated in the Project would include, but would not be not limited to, those listed below (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that would reduce energy consumption and promote energy conservation would also be acceptable):

- Increase in insulation such that heat transfer and thermal bridging is minimized;
- Limit air leakage through the structure and/or within the heating and cooling distribution system;
- Use of energy-efficient space heating and cooling equipment;
- Installation of electrical hook-ups at loading dock areas;
- Installation of dual-paned or other energy efficient windows;
- Use of interior and exterior energy efficient lighting that exceeds then incumbent California Title 24 Energy Efficiency performance standards;
- Installation of automatic devices to turn off lights where they are not needed;
- Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings;
- Design of buildings with “cool roofs” using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors;
- Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems;
- Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products;

4.4 SUMMARY AND CONCLUSIONS

PROJECT IS CONSISTENT WITH AND SUPPORTS AB32 AND CARB SCOPING PLAN

The analysis demonstrates that the Project is consistent with, or otherwise not in conflict with, recommended measures and actions in the CARB Scoping Plan. The Scoping Plan establishes strategies and measures that would achieve GHG reductions goals set forth in the Global Warming Solutions Act of 2006 (AB 32). More specifically, the CARB Scoping Plan calls for an

approximately 30 percent reduction in GHG emissions when compared to BAU conditions. As substantiated herein, Project GHG emissions would be reduced by approximately 32.81% when compared to the BAU scenario. This reduction is consistent with the target reduction percentage of 30% based on CARB’s analysis supporting AB 32.

As shown on Table 4-1, the total amount of Project-related GHG emissions for BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 109,828.93 MTCO2e. The total amount of Project-related GHG emissions when accounting for applicable regulatory developments, project design features, and mitigation measures that would reduce GHG emissions from direct and indirect sources combined would total 73,865.62 MTCO2e. This results in a 32.81% reduction from BAU, thus with implementation of the Project’s design features and regulatory developments, the Project’s GHG reduction would exceed the applicable AB 32 and City of Ontario reduction target of approximately 30%.

As stated previously, the CARB Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32. The CARB Scoping Plan recommendations serve as statewide measures to reduce GHG emissions levels. Project consistency with applicable CARB Scoping Plan GHG emissions reduction measures is summarized at Table 4-2.

Table 4-3 summarizes the GHG emissions reductions by source and identifies the applicable state measures and mitigation measures attributable reductions from the BAU scenario.

TABLE 4-1: SUMMARY OF GHG EMISSIONS FOR BAU VS PROJECT

Category	CO2e Emissions	
	BAU	Project
	Metric Tons per Year	
Construction	1,120.30	1,120.30
Area	207.41	207.41
Energy Use	14,417.36	9,644.01
Mobile Sources (Traffic)	90,579.40	59,817.96
On-Site Equipment	554.41	461.12
Waste Disposed	2,047.01	2,047.01
Water Use	903.03	568.00
Total	109,828.93	73,865.62
Project Improvement over BAU	32.81%	

TABLE 4-2: PROJECT CONSISTENCY WITH SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION

Scoping Plan Measure	Measure Number	Remarks
Pavley Motor Vehicle Standards (AB 1493)	T-1	Employees, customers, and residences would purchase vehicles in compliance with incumbent CARB vehicle standards
Limit High GWP Use in Consumer Products	H-4	Employees, customers, and residences would use consumer products that would comply with the incumbent regulations
Motor Vehicle Air Conditioning Systems – Reduction from Non-Professional Servicing	H-1	Employees, customers, and residences would be prohibited from performing air conditioning repairs and required to use professional servicing.
Tire Pressure Program	T-4	Motor vehicles driven by employees, customers, and residences would maintain proper tire pressure when vehicles are serviced.
Low Carbon Fuel Standard	T-2	Motor vehicles driven by employees, customers, and residences would use fuels that are compliant with incumbent standards.
Water Use Efficiency	W-1	Development proposals within the Project site would implement measures to minimize water use and maximize efficiency.
Green Buildings	GB-1	Development proposals within the Project site would be constructed in compliance with incumbent state or local green building standards.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	Motor vehicles driven by employees, customers, and residences would comply with the leak test requirements during smog checks.
Energy Efficiency Measures (Electricity)	E-1	The Project would comply with incumbent electrical energy efficiency standards
Energy Efficiency (Natural Gas)	CR-1	Development proposals within the Project site would comply with incumbent natural gas energy efficiency standards
Greening New Residential and Commercial Construction	GB-1	Development proposals within the Project site would comply with incumbent green building standards
Greening Existing Homes and Commercial Buildings	GB-1	Development proposals within the Project site would meet retrofit standards as they become effective.

TABLE 4-3: GHG EMISSIONS REDUCTIONS BY SOURCE AND REDUCTION MEASURES BAU SCENARIO VS. PROJECT SCENARIO

GHG Source	CO2e Emissions (Metric Tons per Year)				
	BAU GHG Emissions	GHG Reduction resulting from State Measures	GHG Reduction resulting from Project Design, and AQ Mitigation Measures	Total GHG Reduction	Net Project GHG Emissions (2020)
Construction	1,120.30	0.00	0.00	0.00	1,120.30
Area	207.41	0.00	0.00	0.00	207.41
Energy Use	14,417.36	4,245.06 - Renewable Portfolio Standards - 2013 Title 24 Requirements	528.29 - Mitigation Measure (Exceed Title 24 by 5%) - Project Design Feature 1,600,000 kWh/yr generated from solar generation	4,773.35	9,644.01
Mobile Sources (Traffic)	90,579.40	22,275.03 - Pavely Fuel Efficiency Standards (AB1493) - Title 17 California Code of Regulations (Low Carbon Fuel Standard)	8,486.41 - Project Design Features (Increase Diversity)	30,761.44	59,817.96
On-Site Equipment	554.41	93.29 - Natural turn-over of equipment/vehicles to more efficient pollutant emitting engines	0.00	93.29	461.12
Waste Disposed	2,047.01	0.00	0.00	0.00	2,047.01
Water Use	903.03	175.58 - Renewable Portfolio Standards create an indirect reduction in water use demand that is a result of a decrease in energy intensity. This is due to the fact that water demand is correlated to the energy needed to collect, move, and treat water throughout the state.	159.45 -Project Design Feature (reduction of water use 20% indoor)	335.03	568.00
Total	109,828.93	26,788.96	9,174.15	35,963.11	73,865.62

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6 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Meredith International Centre Specific Plan Amendment Project. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

APPENDIX 3.1:
CALEEMOD EMISSIONS MODEL OUTPUTS

CALEEMOD EMISSIONS MODEL OUTPUTS
ANNUAL CONSTRUCTION (*NOT AMMORTIZED*)

**Merideth International Centre (Planning Area 1B Construction)
San Bernardino-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	620.03	1000sqft	14.23	620,027.00	0
Unrefrigerated Warehouse-No Rail	2,386.97	1000sqft	54.80	2,386,973.00	0
Other Asphalt Surfaces	6.44	Acre	6.44	280,526.40	0
Regional Shopping Center	86.00	1000sqft	1.97	86,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on information provided by the applicant

Construction Phase - based on a 2017 opening year

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - Equipment adjusted to account for Project realignment activities during PA1 construction activities

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - no operational emissions modeled

Vehicle Emission Factors - no operational emissions modeled

Vehicle Emission Factors - no operational emissions modeled

Vehicle Emission Factors - no operational emissions modeled

Area Coating -

Energy Use - no operational emissions modeled

Water And Wastewater - no operational emissions modeled

Solid Waste - no operational emissions modeled

Construction Off-road Equipment Mitigation - tier 3 mitigation to all equipment greater than 150 HP

Area Mitigation - 150g/L low VOC Paints

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	260.00
tblConstructionPhase	NumDays	1,550.00	475.00
tblConstructionPhase	NumDays	155.00	45.00
tblConstructionPhase	NumDays	110.00	45.00
tblConstructionPhase	PhaseEndDate	10/26/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	3/2/2018	12/29/2017
tblConstructionPhase	PhaseStartDate	10/28/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	12/30/2017	10/28/2017
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.02	0.00

tblEnergyUse	T24NG	2.11	0.00
tblGrading	AcresOfGrading	900.00	450.00
tblLandUse	LandUseSquareFeet	620,030.00	620,027.00
tblLandUse	LandUseSquareFeet	2,386,970.00	2,386,973.00
tblOffRoadEquipment	HorsePower	122.00	189.00
tblOffRoadEquipment	LoadFactor	0.44	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	16.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	SolidWasteGenerationRate	768.84	0.00

tblSolidWaste	SolidWasteGenerationRate	90.30	0.00
tblSolidWaste	SolidWasteGenerationRate	2,243.75	0.00
tblTripsAndVMT	WorkerTripNumber	115.00	58.00
tblTripsAndVMT	WorkerTripNumber	60.00	30.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD2	9.0390e-003	0.00
tblVehicleEF	LHD2	9.0390e-003	0.00
tblVehicleEF	LHD2	9.0390e-003	0.00
tblVehicleEF	MCY	4.9210e-003	0.00
tblVehicleEF	MCY	4.9210e-003	0.00
tblVehicleEF	MCY	4.9210e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00

tblVehicleEF	MH	2.9320e-003	0.00
tblVehicleEF	MH	2.9320e-003	0.00
tblVehicleEF	MH	2.9320e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1220e-003	0.00
tblVehicleEF	OBUS	1.1220e-003	0.00
tblVehicleEF	OBUS	1.1220e-003	0.00
tblVehicleEF	SBUS	7.1200e-004	0.00
tblVehicleEF	SBUS	7.1200e-004	0.00
tblVehicleEF	SBUS	7.1200e-004	0.00
tblVehicleEF	UBUS	1.3340e-003	0.00
tblVehicleEF	UBUS	1.3340e-003	0.00
tblVehicleEF	UBUS	1.3340e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	ST_TR	1.32	0.00

tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	42.94	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
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tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	143,381,937.50	0.00
tblWater	IndoorWaterUseRate	6,370,236.85	0.00
tblWater	IndoorWaterUseRate	551,986,812.50	0.00

tblWater	OutdoorWaterUseRate	3,904,338.71	0.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.0809	12.9462	7.8397	9.8800e-003	1.3366	0.5787	1.9153	0.6253	0.5324	1.1578	0.0000	938.7338	938.7338	0.2771	0.0000	944.5532
2016	3.2962	24.7891	29.8599	0.0548	3.7743	1.2220	4.9964	1.2819	1.1442	2.4261	0.0000	4,607.2462	4,607.2462	0.4604	0.0000	4,616.9143
2017	42.5413	25.1576	30.2997	0.0581	2.4366	1.3684	3.8050	0.6547	1.3025	1.9572	0.0000	4,770.5827	4,770.5827	0.4949	0.0000	4,780.9764
Total	46.9185	62.8929	67.9992	0.1228	7.5475	3.1692	10.7167	2.5619	2.9792	5.5411	0.0000	10,316.5627	10,316.5627	1.2324	0.0000	10,342.4439

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.3305	5.4922	5.4467	9.8800e-003	0.5298	0.2255	0.7553	0.2461	0.2201	0.4663	0.0000	938.7327	938.7327	0.2771	0.0000	944.5521
2016	2.8266	20.0698	29.8282	0.0548	2.9676	0.9920	3.9596	0.9027	0.9392	1.8419	0.0000	4,607.2446	4,607.2446	0.4604	0.0000	4,616.9127
2017	42.2128	21.9253	30.4603	0.0581	2.4366	1.2128	3.6494	0.6547	1.1646	1.8193	0.0000	4,770.5805	4,770.5805	0.4949	0.0000	4,780.9742
Total	45.3699	47.4872	65.7351	0.1228	5.9339	2.4303	8.3643	1.8036	2.3240	4.1275	0.0000	10,316.5578	10,316.5578	1.2324	0.0000	10,342.4389

	ROG	NOx	CO	SO2	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	3.30	24.50	3.33	0.00	21.38	23.31	21.95	29.60	21.99	25.51	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	16.1032	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	16.1032	3.8000e-004	0.0403	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814

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	14.5396	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	14.5396	3.8000e-004	0.0403	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814

	ROG	NOx	CO	SO2	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	9.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/1/2015	1/1/2016	5	45	
2	Building Construction	Building Construction	1/2/2016	10/27/2017	5	475	
3	Architectural Coating	Architectural Coating	1/1/2017	12/29/2017	5	260	
4	Paving	Paving	10/28/2017	12/29/2017	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 5,060,290; Non-Residential Outdoor: 1,686,763 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	8	8.00	174	0.41
Grading	Off-Highway Tractors	6	8.00	189	0.50
Grading	Rubber Tired Dozers	8	8.00	255	0.40
Grading	Scrapers	16	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	6	8.00	226	0.29
Building Construction	Forklifts	10	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	10	8.00	97	0.37
Building Construction	Welders	4	8.00	46	0.45
Architectural Coating	Air Compressors	12	8.00	78	0.48
Paving	Pavers	8	8.00	125	0.42
Paving	Paving Equipment	8	8.00	130	0.36
Paving	Rollers	8	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	46	58.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	34	1,408.00	553.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	12	282.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	24	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading - 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					
Fugitive Dust					1.3226	0.0000	1.3226	0.6216	0.0000	0.6216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0754	12.9379	7.7527	9.7100e-003		0.5786	0.5786		0.5323	0.5323	0.0000	925.7631	925.7631	0.2764	0.0000	931.5671
Total	1.0754	12.9379	7.7527	9.7100e-003	1.3226	0.5786	1.9012	0.6216	0.5323	1.1539	0.0000	925.7631	925.7631	0.2764	0.0000	931.5671

3.2 Grading - 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	5.5200e-003	8.2800e-003	0.0870	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7200e-003	1.0000e-004	3.8200e-003	0.0000	12.9707	12.9707	7.3000e-004	0.0000	12.9862
Total	5.5200e-003	8.2800e-003	0.0870	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7200e-003	1.0000e-004	3.8200e-003	0.0000	12.9707	12.9707	7.3000e-004	0.0000	12.9862

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					0.5158	0.0000	0.5158	0.2424	0.0000	0.2424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3249	5.4839	5.3597	9.7100e-003		0.2254	0.2254		0.2200	0.2200	0.0000	925.7620	925.7620	0.2764	0.0000	931.5660
Total	0.3249	5.4839	5.3597	9.7100e-003	0.5158	0.2254	0.7412	0.2424	0.2200	0.4625	0.0000	925.7620	925.7620	0.2764	0.0000	931.5660

3.2 Grading - 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	5.5200e-003	8.2800e-003	0.0870	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7200e-003	1.0000e-004	3.8200e-003	0.0000	12.9707	12.9707	7.3000e-004	0.0000	12.9862
Total	5.5200e-003	8.2800e-003	0.0870	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7200e-003	1.0000e-004	3.8200e-003	0.0000	12.9707	12.9707	7.3000e-004	0.0000	12.9862

3.2 Grading - 2016

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					1.3226	0.0000	1.3226	0.6216	0.0000	0.6216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.2778	0.1689	2.2000e-004		0.0124	0.0124		0.0114	0.0114	0.0000	20.8099	20.8099	6.2800e-003	0.0000	20.9417
Total	0.0233	0.2778	0.1689	2.2000e-004	1.3226	0.0124	1.3350	0.6216	0.0114	0.6330	0.0000	20.8099	20.8099	6.2800e-003	0.0000	20.9417

3.2 Grading - 2016

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	1.1000e-004	1.7000e-004	1.7700e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2842	0.2842	2.0000e-005	0.0000	0.2845	0.2845
Total	1.1000e-004	1.7000e-004	1.7700e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2842	0.2842	2.0000e-005	0.0000	0.2845	0.2845

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					0.5158	0.0000	0.5158	0.2424	0.0000	0.2424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.1213	0.1211	2.2000e-004		4.9500e-003	4.9500e-003		4.8400e-003	4.8400e-003	0.0000	20.8099	20.8099	6.2800e-003	0.0000	20.9417
Total	7.1400e-003	0.1213	0.1211	2.2000e-004	0.5158	4.9500e-003	0.5208	0.2424	4.8400e-003	0.2473	0.0000	20.8099	20.8099	6.2800e-003	0.0000	20.9417

3.2 Grading - 2016

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	1.1000e-004	1.7000e-004	1.7700e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2842	0.2842	2.0000e-005	0.0000	0.2845
Total	1.1000e-004	1.7000e-004	1.7700e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2842	0.2842	2.0000e-005	0.0000	0.2845

3.3 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9241	16.8766	10.1083	0.0152		1.0901	1.0901		1.0229	1.0229	0.0000	1,375.5175	1,375.5175	0.3474	0.0000	1,382.8127
Total	1.9241	16.8766	10.1083	0.0152		1.0901	1.0901		1.0229	1.0229	0.0000	1,375.5175	1,375.5175	0.3474	0.0000	1,382.8127

3.3 Building Construction - 2016

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	0.6443	6.5716	8.3926	0.0156	0.4445	0.1044	0.5488	0.1272	0.0960	0.2232	0.0000	1,417.002 4	1,417.002 4	0.0104	0.0000	1,417.220 1	
Worker	0.7044	1.0629	11.1883	0.0238	2.0070	0.0152	2.0222	0.5330	0.0140	0.5470	0.0000	1,793.632 2	1,793.632 2	0.0963	0.0000	1,795.655 4	
Total	1.3487	7.6346	19.5809	0.0394	2.4514	0.1195	2.5710	0.6602	0.1099	0.7701	0.0000	3,210.634 6	3,210.634 6	0.1067	0.0000	3,212.875 4	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4707	12.3138	10.1244	0.0152		0.8675	0.8675		0.8244	0.8244	0.0000	1,375.515 9	1,375.515 9	0.3474	0.0000	1,382.811 0
Total	1.4707	12.3138	10.1244	0.0152		0.8675	0.8675		0.8244	0.8244	0.0000	1,375.515 9	1,375.515 9	0.3474	0.0000	1,382.811 0

3.3 Building Construction - 2016

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	0.6443	6.5716	8.3926	0.0156	0.4445	0.1044	0.5488	0.1272	0.0960	0.2232	0.0000	1,417.002 4	1,417.002 4	0.0104	0.0000	1,417.220 1
Worker	0.7044	1.0629	11.1883	0.0238	2.0070	0.0152	2.0222	0.5330	0.0140	0.5470	0.0000	1,793.632 2	1,793.632 2	0.0963	0.0000	1,795.655 4
Total	1.3487	7.6346	19.5809	0.0394	2.4514	0.1195	2.5710	0.6602	0.1099	0.7701	0.0000	3,210.634 6	3,210.634 6	0.1067	0.0000	3,212.875 4

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4458	12.8656	8.1391	0.0126		0.8134	0.8134		0.7631	0.7631	0.0000	1,124.498 6	1,124.498 6	0.2825	0.0000	1,130.430 4
Total	1.4458	12.8656	8.1391	0.0126		0.8134	0.8134		0.7631	0.7631	0.0000	1,124.498 6	1,124.498 6	0.2825	0.0000	1,130.430 4

3.3 Building Construction - 2017

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	0.4916	4.9386	6.6233	0.0129	0.3676	0.0770	0.4445	0.1052	0.0708	0.1760	0.0000	1,152.4608	1,152.4608	8.2900e-003	0.0000	0.0000	1,152.6348
Worker	0.5149	0.7875	8.2831	0.0197	1.6596	0.0121	1.6717	0.4408	0.0112	0.4519	0.0000	1,424.8478	1,424.8478	0.0730	0.0000	0.0000	1,426.3815
Total	1.0065	5.7261	14.9064	0.0325	2.0272	0.0891	2.1162	0.5460	0.0819	0.6279	0.0000	2,577.3085	2,577.3085	0.0813	0.0000	0.0000	2,579.0163

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Off-Road	1.1173	9.6334	8.2997	0.0126		0.6578	0.6578		0.6251	0.6251	0.0000	1,124.4972	1,124.4972	0.2825	0.0000	0.0000	1,130.4291
Total	1.1173	9.6334	8.2997	0.0126		0.6578	0.6578		0.6251	0.6251	0.0000	1,124.4972	1,124.4972	0.2825	0.0000	0.0000	1,130.4291

3.3 Building Construction - 2017

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	0.4916	4.9386	6.6233	0.0129	0.3676	0.0770	0.4445	0.1052	0.0708	0.1760	0.0000	1,152.4608	1,152.4608	8.2900e-003	0.0000	1,152.6348
Worker	0.5149	0.7875	8.2831	0.0197	1.6596	0.0121	1.6717	0.4408	0.0112	0.4519	0.0000	1,424.8478	1,424.8478	0.0730	0.0000	1,426.3815
Total	1.0065	5.7261	14.9064	0.0325	2.0272	0.0891	2.1162	0.5460	0.0819	0.6279	0.0000	2,577.3085	2,577.3085	0.0813	0.0000	2,579.0163

3.4 Architectural Coating - 2017

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	39.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6912	4.5449	3.8856	6.1800e-003		0.3605	0.3605		0.3605	0.3605	0.0000	531.0768	531.0768	0.0561	0.0000	532.2543
Total	39.7820	4.5449	3.8856	6.1800e-003		0.3605	0.3605		0.3605	0.3605	0.0000	531.0768	531.0768	0.0561	0.0000	532.2543

3.4 Architectural Coating - 2017

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	0.1247	0.1907	2.0062	4.7600e-003	0.4020	2.9300e-003	0.4049	0.1068	2.7000e-003	0.1095	0.0000	345.1039	345.1039	0.0177	0.0000	345.4753	
Total	0.1247	0.1907	2.0062	4.7600e-003	0.4020	2.9300e-003	0.4049	0.1068	2.7000e-003	0.1095	0.0000	345.1039	345.1039	0.0177	0.0000	345.4753	

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	39.0907					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6912	4.5449	3.8856	6.1800e-003		0.3605	0.3605		0.3605	0.3605	0.0000	531.0762	531.0762	0.0561	0.0000	532.2536
Total	39.7819	4.5449	3.8856	6.1800e-003		0.3605	0.3605		0.3605	0.3605	0.0000	531.0762	531.0762	0.0561	0.0000	532.2536

3.4 Architectural Coating - 2017

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	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	0.1247	0.1907	2.0062	4.7600e-003	0.4020	2.9300e-003	0.4049	0.1068	2.7000e-003	0.1095	0.0000	345.1039	345.1039	0.0177	0.0000	345.4753	
Total	0.1247	0.1907	2.0062	4.7600e-003	0.4020	2.9300e-003	0.4049	0.1068	2.7000e-003	0.1095	0.0000	345.1039	345.1039	0.0177	0.0000	345.4753	

3.5 Paving - 2017

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	0.1717	1.8267	1.3254	2.0100e-003		0.1025	0.1025		0.0943	0.0943	0.0000	186.2408	186.2408	0.0571	0.0000	187.4391
Paving	8.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1801	1.8267	1.3254	2.0100e-003		0.1025	0.1025		0.0943	0.0943	0.0000	186.2408	186.2408	0.0571	0.0000	187.4391

3.5 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-003	3.5100e-003	0.0369	9.0000e-005	7.4000e-003	5.0000e-005	7.4600e-003	1.9700e-003	5.0000e-005	2.0200e-003	0.0000	6.3542	6.3542	3.3000e-004	0.0000	6.3610
Total	2.3000e-003	3.5100e-003	0.0369	9.0000e-005	7.4000e-003	5.0000e-005	7.4600e-003	1.9700e-003	5.0000e-005	2.0200e-003	0.0000	6.3542	6.3542	3.3000e-004	0.0000	6.3610

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	0.1717	1.8267	1.3254	2.0100e-003		0.1025	0.1025		0.0943	0.0943	0.0000	186.2405	186.2405	0.0571	0.0000	187.4389
Paving	8.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1801	1.8267	1.3254	2.0100e-003		0.1025	0.1025		0.0943	0.0943	0.0000	186.2405	186.2405	0.0571	0.0000	187.4389

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
General Light Industry	0.00	0.00	0.00	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	16.30	64.70	19.00	54	35	11
Unrefrigerated Warehouse-No	0.00	0.00	0.00	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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	14.5396	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814
Unmitigated	16.1032	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814

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	3.9091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.8900e-003	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814
Total	16.1032	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814

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	2.3454					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.8900e-003	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814
Total	14.5396	3.8000e-004	0.0403	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0769	0.0769	2.1000e-004	0.0000	0.0814

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

**Merideth International Centre (Planning Area 2-4 Construction)
San Bernardino-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	280.00	1000sqft	6.43	280,000.00	0
Parking Lot	2,800.00	Space	25.20	1,120,000.00	0
Hotel	600.00	Room	20.00	345,000.00	0
Apartments Low Rise	800.00	Dwelling Unit	50.00	800,000.00	2288
Regional Shopping Center	518.00	1000sqft	11.89	518,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
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 - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - assumed 2 parking spaces per hotel room

Construction Phase - based on a 2020 opening year

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - based on consultation with the applicant

Off-road Equipment - based on consultation with the applicant
 Off-road Equipment - based on consultation with the applicant
 Off-road Equipment - based on consultation with the applicant
 Off-road Equipment - based on consultation with the applicant
 Off-road Equipment - based on consultation with the applicant
 Off-road Equipment - based on consultation with the applicant
 Off-road Equipment - based on information provided by the applicant
 Off-road Equipment - based on information provided by the applicant
 Off-road Equipment - based on information provided by the applicant
 Trips and VMT -
 Grading -
 Architectural Coating -
 Vehicle Trips - no operational emissions modeled
 Vehicle Emission Factors - no operational emissions modeled
 Vehicle Emission Factors - no operational emissions modeled
 Vehicle Emission Factors - no operational emissions modeled
 Woodstoves - operational emissions not modeled
 Area Coating -
 Energy Use - no operational emissions modeled
 Water And Wastewater - no operational emissions modeled
 Solid Waste - no operational emissions modeled
 Construction Off-road Equipment Mitigation - tier 3 mitigation to all equipment greater than 150 HP
 Area Mitigation - 150 g/L low VOC paint

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150

tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	150
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	150
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	24.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	24.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	220.00	400.00
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tblConstructionPhase	NumDays	3,100.00	400.00
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tblConstructionPhase	NumDays	310.00	45.00
tblConstructionPhase	NumDays	220.00	270.00
tblConstructionPhase	NumDays	220.00	271.00
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tblConstructionPhase	PhaseEndDate	4/13/2021	1/17/2020
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tblConstructionPhase	PhaseEndDate	4/23/2021	9/11/2020
tblConstructionPhase	PhaseEndDate	9/27/2021	11/13/2020
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tblConstructionPhase	PhaseStartDate	1/8/2020	10/1/2018
tblConstructionPhase	PhaseStartDate	5/5/2018	3/3/2018
tblConstructionPhase	PhaseStartDate	7/7/2018	5/5/2018
tblConstructionPhase	PhaseStartDate	10/2/2019	7/7/2018
tblConstructionPhase	PhaseStartDate	9/14/2019	5/5/2018
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tblConstructionPhase	PhaseStartDate	9/12/2020	11/1/2019
tblConstructionPhase	PhaseStartDate	11/14/2020	1/1/2020
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tblEnergyUse	LightingElect	7.62	0.00
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tblEnergyUse	NT24E	6.23	0.00
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tblEnergyUse	NT24E	2.44	0.00
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tblEnergyUse	NT24NG	0.30	0.00
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tblEnergyUse	T24NG	2.02	0.00
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tblFireplaces	NumberWood	40.00	0.00
tblLandUse	LandUseSquareFeet	871,200.00	345,000.00
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tblOffRoadEquipment	HorsePower	400.00	189.00
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tblSolidWaste	SolidWasteGenerationRate	543.90	0.00
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tblVehicleEF	LDT2	0.17	0.00
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tblWater	OutdoorWaterUseRate	1,691,118.00	0.00
tblWater	OutdoorWaterUseRate	30,501,404.49	0.00
tblWater	OutdoorWaterUseRate	23,516,830.85	0.00

tblWoodstoves	NumberCatalytic	40.00	0.00
tblWoodstoves	NumberNoncatalytic	40.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	21.3912	51.1376	61.5184	0.1239	9.3303	2.3628	11.6932	3.3039	2.2205	5.5245	0.0000	9,950.8920	9,950.8920	1.1817	0.0000	9,975.7076
2019	38.3281	43.3056	67.0106	0.1503	7.4557	2.0135	9.4692	1.9996	1.9174	3.9170	0.0000	11,543.3846	11,543.3846	0.9819	0.0000	11,564.0047
2020	4.4538	10.2420	11.8451	0.0207	0.3526	0.5454	0.8980	0.0940	0.5051	0.5992	0.0000	1,717.5924	1,717.5924	0.4438	0.0000	1,726.9130
Total	64.1731	104.6852	140.3742	0.2949	17.1386	4.9217	22.0603	5.3976	4.6431	10.0407	0.0000	23,211.8690	23,211.8690	2.6075	0.0000	23,266.6252

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	19.9011	37.8150	59.3768	0.1239	6.9100	1.7248	8.6348	2.1664	1.6634	3.8298	0.0000	9,950.8873	9,950.8873	1.1817	0.0000	9,975.7030
2019	37.8504	38.9984	68.0378	0.1503	7.4557	1.8148	9.2705	1.9996	1.7456	3.7452	0.0000	11,543.3804	11,543.3804	0.9819	0.0000	11,564.0005
2020	4.4458	10.1745	11.8694	0.0207	0.3526	0.5424	0.8950	0.0940	0.5026	0.5966	0.0000	1,717.5907	1,717.5907	0.4438	0.0000	1,726.9113
Total	62.1973	86.9880	139.2840	0.2949	14.7183	4.0820	18.8002	4.2600	3.9115	8.1716	0.0000	23,211.8585	23,211.8585	2.6075	0.0000	23,266.6147

	ROG	NOx	CO	SO2	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	3.08	16.91	0.78	0.00	14.12	17.06	14.78	21.08	15.76	18.62	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	13.0015	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	13.0015	0.0962	8.3315	4.4000e-004	0.0000	0.0457	0.0457	0.0000	0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625

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	12.8942	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	12.8942	0.0962	8.3315	4.4000e-004	0.0000	0.0457	0.0457	0.0000	0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading (PA 2)	Grading	1/1/2018	3/2/2018	5	45	
2	Grading (PA 3)	Grading	3/3/2018	5/4/2018	5	45	
3	Building Construction (PA 2)	Building Construction	3/3/2018	9/13/2019	5	400	
4	Grading (PA 4)	Grading	5/5/2018	7/6/2018	5	45	
5	Building Construction (PA 3)	Building Construction	5/5/2018	11/15/2019	5	400	
6	Architectural Coating (PA 2)	Architectural Coating	6/1/2018	10/1/2019	5	348	
7	Building Construction (PA 4)	Building Construction	7/7/2018	1/17/2020	5	400	
8	Architectural Coating (PA 3)	Architectural Coating	8/1/2018	1/7/2020	5	375	
9	Architectural Coating (PA 4)	Architectural Coating	10/1/2018	4/10/2020	5	400	
10	Paving (PA 2)	Paving	9/1/2019	9/11/2020	5	270	
11	Paving (PA 3)	Paving	11/1/2019	11/13/2020	5	271	
12	Paving (PA 4)	Paving	1/1/2020	12/4/2020	5	243	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,620,000; Residential Outdoor: 540,000; Non-Residential Indoor: 1,764,900; Non-Residential Outdoor: 588,300 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading (PA 2)	Excavators	0	8.00	162	0.38
Grading (PA 2)	Graders	4	8.00	174	0.41
Grading (PA 2)	Off-Highway Trucks	4	8.00	189	0.50
Grading (PA 2)	Rubber Tired Dozers	8	8.00	255	0.40
Grading (PA 2)	Scrapers	8	8.00	361	0.48

Grading (PA 2)	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading (PA 3)	Excavators	0	8.00	162	0.38
Grading (PA 3)	Graders	4	8.00	174	0.41
Grading (PA 3)	Off-Highway Trucks	4	8.00	189	0.50
Grading (PA 3)	Rubber Tired Dozers	8	8.00	255	0.40
Grading (PA 3)	Scrapers	8	8.00	361	0.48
Grading (PA 3)	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction (PA 2)	Cranes	4	8.00	226	0.29
Building Construction (PA 2)	Forklifts	6	8.00	89	0.20
Building Construction (PA 2)	Generator Sets	4	8.00	84	0.74
Building Construction (PA 2)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction (PA 2)	Welders	4	8.00	46	0.45
Grading (PA 4)	Excavators	0	8.00	162	0.38
Grading (PA 4)	Graders	4	8.00	174	0.41
Grading (PA 4)	Off-Highway Trucks	4	8.00	189	0.50
Grading (PA 4)	Rubber Tired Dozers	8	8.00	255	0.40
Grading (PA 4)	Scrapers	8	8.00	361	0.48
Grading (PA 4)	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction (PA 3)	Cranes	4	8.00	226	0.29
Building Construction (PA 3)	Forklifts	6	8.00	89	0.20
Building Construction (PA 3)	Generator Sets	4	8.00	84	0.74
Building Construction (PA 3)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction (PA 3)	Welders	4	8.00	46	0.45
Architectural Coating (PA 2)	Air Compressors	6	8.00	78	0.48
Building Construction (PA 4)	Cranes	4	8.00	226	0.29
Building Construction (PA 4)	Forklifts	6	8.00	89	0.20
Building Construction (PA 4)	Generator Sets	4	8.00	84	0.74
Building Construction (PA 4)	Tractors/Loaders/Backhoes	6	8.00	97	0.37

Building Construction (PA 4)	Welders	4	8.00	46	0.45
Architectural Coating (PA 3)	Air Compressors	6	8.00	78	0.48
Architectural Coating (PA 4)	Air Compressors	6	8.00	78	0.48
Paving (PA 2)	Pavers	4	8.00	125	0.42
Paving (PA 2)	Paving Equipment	4	8.00	130	0.36
Paving (PA 2)	Rollers	4	8.00	80	0.38
Paving (PA 3)	Pavers	4	8.00	125	0.42
Paving (PA 3)	Paving Equipment	4	8.00	130	0.36
Paving (PA 3)	Rollers	4	8.00	80	0.38
Paving (PA 4)	Pavers	4	8.00	125	0.42
Paving (PA 4)	Paving Equipment	4	8.00	130	0.36
Paving (PA 4)	Rollers	4	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading (PA 2)	28	70.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading (PA 3)	28	70.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (PA 2)	24	1,447.00	456.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading (PA 4)	28	70.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (PA 3)	24	1,447.00	456.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (PA 2)	6	289.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (PA 4)	24	1,447.00	456.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (PA 3)	6	289.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (PA 4)	6	289.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (PA 2)	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (PA 3)	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (PA 4)	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Grading (PA 2) - 2018

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					1.3226	0.0000	1.3226	0.6216	0.0000	0.6216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5467	6.1203	4.0309	5.8500e-003		0.2762	0.2762		0.2541	0.2541	0.0000	534.2557	534.2557	0.1663	0.0000	537.7484
Total	0.5467	6.1203	4.0309	5.8500e-003	1.3226	0.2762	1.5988	0.6216	0.2541	0.8758	0.0000	534.2557	534.2557	0.1663	0.0000	537.7484

3.2 Grading (PA 2) - 2018

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	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798	
Total	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798	

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					0.5158	0.0000	0.5158	0.2424	0.0000	0.2424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1935	3.0445	3.1330	5.8500e-003		0.1275	0.1275		0.1245	0.1245	0.0000	534.2551	534.2551	0.1663	0.0000	537.7478
Total	0.1935	3.0445	3.1330	5.8500e-003	0.5158	0.1275	0.6434	0.2424	0.1245	0.3669	0.0000	534.2551	534.2551	0.1663	0.0000	537.7478

3.2 Grading (PA 2) - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798
Total	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798

3.3 Grading (PA 3) - 2018

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					1.3226	0.0000	1.3226	0.6216	0.0000	0.6216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5467	6.1203	4.0309	5.8500e-003		0.2762	0.2762		0.2541	0.2541	0.0000	534.2557	534.2557	0.1663	0.0000	537.7484
Total	0.5467	6.1203	4.0309	5.8500e-003	1.3226	0.2762	1.5988	0.6216	0.2541	0.8758	0.0000	534.2557	534.2557	0.1663	0.0000	537.7484

3.3 Grading (PA 3) - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798
Total	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798

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					0.5158	0.0000	0.5158	0.2424	0.0000	0.2424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1935	3.0445	3.1330	5.8500e-003		0.1275	0.1275		0.1245	0.1245	0.0000	534.2551	534.2551	0.1663	0.0000	537.7478
Total	0.1935	3.0445	3.1330	5.8500e-003	0.5158	0.1275	0.6434	0.2424	0.1245	0.3669	0.0000	534.2551	534.2551	0.1663	0.0000	537.7478

3.3 Grading (PA 3) - 2018

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	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	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798	
Total	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798	

3.4 Building Construction (PA 2) - 2018

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	0.9383	8.1107	5.7868	9.3800e-003		0.4892	0.4892		0.4630	0.4630	0.0000	822.3664	822.3664	0.1879	0.0000	826.3123
Total	0.9383	8.1107	5.7868	9.3800e-003		0.4892	0.4892		0.4630	0.4630	0.0000	822.3664	822.3664	0.1879	0.0000	826.3123

3.4 Building Construction (PA 2) - 2018

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	0.3763	3.7492	5.2198	0.0107	0.3045	0.0600	0.3644	0.0871	0.0552	0.1423	0.0000	938.3853	938.3853	6.8200e-003	0.0000	0.0000	938.5285
Worker	0.4723	0.7335	7.7042	0.0203	1.7135	0.0122	1.7257	0.4551	0.0113	0.4664	0.0000	1,415.4164	1,415.4164	0.0696	0.0000	0.0000	1,416.8787
Total	0.8486	4.4827	12.9240	0.0309	2.0180	0.0722	2.0901	0.5422	0.0664	0.6087	0.0000	2,353.8017	2,353.8017	0.0765	0.0000	0.0000	2,355.4073

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	0.7570	6.3864	6.0193	9.3800e-003		0.4083	0.4083		0.3922	0.3922	0.0000	822.3655	822.3655	0.1879	0.0000	0.0000	826.3113
Total	0.7570	6.3864	6.0193	9.3800e-003		0.4083	0.4083		0.3922	0.3922	0.0000	822.3655	822.3655	0.1879	0.0000	0.0000	826.3113

3.4 Building Construction (PA 2) - 2018

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	0.0000
Vendor	0.3763	3.7492	5.2198	0.0107	0.3045	0.0600	0.3644	0.0871	0.0552	0.1423	0.0000	938.3853	938.3853	6.8200e-003	0.0000	0.0000	938.5285
Worker	0.4723	0.7335	7.7042	0.0203	1.7135	0.0122	1.7257	0.4551	0.0113	0.4664	0.0000	1,415.4164	1,415.4164	0.0696	0.0000	0.0000	1,416.8787
Total	0.8486	4.4827	12.9240	0.0309	2.0180	0.0722	2.0901	0.5422	0.0664	0.6087	0.0000	2,353.8017	2,353.8017	0.0765	0.0000	0.0000	2,355.4073

3.4 Building Construction (PA 2) - 2019

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	0.7034	6.2294	4.7910	7.9900e-003		0.3587	0.3587		0.3396	0.3396	0.0000	693.6118	693.6118	0.1565	0.0000	0.0000	696.8979
Total	0.7034	6.2294	4.7910	7.9900e-003		0.3587	0.3587		0.3396	0.3396	0.0000	693.6118	693.6118	0.1565	0.0000	0.0000	696.8979

3.4 Building Construction (PA 2) - 2019

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	0.3037	2.9313	4.3196	9.0000e-003	0.2593	0.0490	0.3083	0.0742	0.0451	0.1193	0.0000	781.0636	781.0636	5.6200e-003	0.0000	0.0000	781.1816
Worker	0.3652	0.5691	5.9417	0.0172	1.4597	0.0101	1.4698	0.3877	9.3900e-003	0.3971	0.0000	1,154.9747	1,154.9747	0.0547	0.0000	0.0000	1,156.1232
Total	0.6688	3.5005	10.2613	0.0262	1.7190	0.0591	1.7781	0.4619	0.0545	0.5163	0.0000	1,936.0383	1,936.0383	0.0603	0.0000	0.0000	1,937.3048

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	0.5730	5.0535	5.0714	7.9900e-003		0.3044	0.3044		0.2927	0.2927	0.0000	693.6109	693.6109	0.1565	0.0000	0.0000	696.8971
Total	0.5730	5.0535	5.0714	7.9900e-003		0.3044	0.3044		0.2927	0.2927	0.0000	693.6109	693.6109	0.1565	0.0000	0.0000	696.8971

3.4 Building Construction (PA 2) - 2019

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	0.3037	2.9313	4.3196	9.0000e-003	0.2593	0.0490	0.3083	0.0742	0.0451	0.1193	0.0000	781.0636	781.0636	5.6200e-003	0.0000	781.1816
Worker	0.3652	0.5691	5.9417	0.0172	1.4597	0.0101	1.4698	0.3877	9.3900e-003	0.3971	0.0000	1,154.9747	1,154.9747	0.0547	0.0000	1,156.1232
Total	0.6688	3.5005	10.2613	0.0262	1.7190	0.0591	1.7781	0.4619	0.0545	0.5163	0.0000	1,936.0383	1,936.0383	0.0603	0.0000	1,937.3048

3.5 Grading (PA 4) - 2018

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					1.3226	0.0000	1.3226	0.6216	0.0000	0.6216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5467	6.1203	4.0309	5.8500e-003		0.2762	0.2762		0.2541	0.2541	0.0000	534.2557	534.2557	0.1663	0.0000	537.7484
Total	0.5467	6.1203	4.0309	5.8500e-003	1.3226	0.2762	1.5988	0.6216	0.2541	0.8758	0.0000	534.2557	534.2557	0.1663	0.0000	537.7484

3.5 Grading (PA 4) - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798
Total	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798

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					0.5158	0.0000	0.5158	0.2424	0.0000	0.2424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1935	3.0445	3.1330	5.8500e-003		0.1275	0.1275		0.1245	0.1245	0.0000	534.2551	534.2551	0.1663	0.0000	537.7478
Total	0.1935	3.0445	3.1330	5.8500e-003	0.5158	0.1275	0.6434	0.2424	0.1245	0.3669	0.0000	534.2551	534.2551	0.1663	0.0000	537.7478

3.5 Grading (PA 4) - 2018

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	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	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798	
Total	4.7600e-003	7.3900e-003	0.0777	2.0000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	14.2650	14.2650	7.0000e-004	0.0000	14.2798	

3.6 Building Construction (PA 3) - 2018

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	0.7428	6.4210	4.5812	7.4300e-003		0.3873	0.3873		0.3666	0.3666	0.0000	651.0401	651.0401	0.1488	0.0000	654.1639
Total	0.7428	6.4210	4.5812	7.4300e-003		0.3873	0.3873		0.3666	0.3666	0.0000	651.0401	651.0401	0.1488	0.0000	654.1639

3.6 Building Construction (PA 3) - 2018

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	0.2979	2.9681	4.1323	8.4300e-003	0.2410	0.0475	0.2885	0.0690	0.0437	0.1126	0.0000	742.8883	742.8883	5.4000e-003	0.0000	0.0000	743.0018
Worker	0.3739	0.5807	6.0991	0.0161	1.3565	9.6400e-003	1.3662	0.3603	8.9200e-003	0.3692	0.0000	1,120.5380	1,120.5380	0.0551	0.0000	0.0000	1,121.6957
Total	0.6718	3.5488	10.2315	0.0245	1.5976	0.0571	1.6547	0.4293	0.0526	0.4818	0.0000	1,863.4264	1,863.4264	0.0605	0.0000	0.0000	1,864.6974

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	0.5993	5.0559	4.7653	7.4300e-003		0.3233	0.3233		0.3105	0.3105	0.0000	651.0393	651.0393	0.1488	0.0000	0.0000	654.1631
Total	0.5993	5.0559	4.7653	7.4300e-003		0.3233	0.3233		0.3105	0.3105	0.0000	651.0393	651.0393	0.1488	0.0000	0.0000	654.1631

3.6 Building Construction (PA 3) - 2018

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	0.0000
Vendor	0.2979	2.9681	4.1323	8.4300e-003	0.2410	0.0475	0.2885	0.0690	0.0437	0.1126	0.0000	742.8883	742.8883	5.4000e-003	0.0000	0.0000	743.0018
Worker	0.3739	0.5807	6.0991	0.0161	1.3565	9.6400e-003	1.3662	0.3603	8.9200e-003	0.3692	0.0000	1,120.5380	1,120.5380	0.0551	0.0000	0.0000	1,121.6957
Total	0.6718	3.5488	10.2315	0.0245	1.5976	0.0571	1.6547	0.4293	0.0526	0.4818	0.0000	1,863.4264	1,863.4264	0.0605	0.0000	0.0000	1,864.6974

3.6 Building Construction (PA 3) - 2019

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	0.8754	7.7529	5.9627	9.9500e-003		0.4464	0.4464		0.4226	0.4226	0.0000	863.2451	863.2451	0.1948	0.0000	0.0000	867.3349
Total	0.8754	7.7529	5.9627	9.9500e-003		0.4464	0.4464		0.4226	0.4226	0.0000	863.2451	863.2451	0.1948	0.0000	0.0000	867.3349

3.6 Building Construction (PA 3) - 2019

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	0.3779	3.6483	5.3761	0.0112	0.3227	0.0610	0.3837	0.0923	0.0561	0.1484	0.0000	972.0846	972.0846	6.9900e-003	0.0000	0.0000	972.2314
Worker	0.4545	0.7083	7.3948	0.0214	1.8166	0.0126	1.8293	0.4825	0.0117	0.4942	0.0000	1,437.4414	1,437.4414	0.0681	0.0000	0.0000	1,438.8707
Total	0.8324	4.3566	12.7709	0.0326	2.1394	0.0736	2.2130	0.5748	0.0678	0.6426	0.0000	2,409.5259	2,409.5259	0.0751	0.0000	0.0000	2,411.1022

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	0.7131	6.2895	6.3117	9.9500e-003		0.3789	0.3789		0.3642	0.3642	0.0000	863.2440	863.2440	0.1948	0.0000	0.0000	867.3339
Total	0.7131	6.2895	6.3117	9.9500e-003		0.3789	0.3789		0.3642	0.3642	0.0000	863.2440	863.2440	0.1948	0.0000	0.0000	867.3339

3.6 Building Construction (PA 3) - 2019

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	0.3779	3.6483	5.3761	0.0112	0.3227	0.0610	0.3837	0.0923	0.0561	0.1484	0.0000	972.0846	972.0846	6.9900e-003	0.0000	972.2314
Worker	0.4545	0.7083	7.3948	0.0214	1.8166	0.0126	1.8293	0.4825	0.0117	0.4942	0.0000	1,437.4414	1,437.4414	0.0681	0.0000	1,438.8707
Total	0.8324	4.3566	12.7709	0.0326	2.1394	0.0736	2.2130	0.5748	0.0678	0.6426	0.0000	2,409.5259	2,409.5259	0.0751	0.0000	2,411.1022

3.7 Architectural Coating (PA 2) - 2018

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	7.3215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1816	1.2195	1.1274	1.8100e-003		0.0915	0.0915		0.0915	0.0915	0.0000	155.2381	155.2381	0.0148	0.0000	155.5479
Total	7.5031	1.2195	1.1274	1.8100e-003		0.0915	0.0915		0.0915	0.0915	0.0000	155.2381	155.2381	0.0148	0.0000	155.5479

3.7 Architectural Coating (PA 2) - 2018

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	0.0664	0.1031	1.0828	2.8500e-003	0.2408	1.7100e-003	0.2425	0.0640	1.5800e-003	0.0656	0.0000	198.9314	198.9314	9.7900e-003	0.0000	199.1369
Total	0.0664	0.1031	1.0828	2.8500e-003	0.2408	1.7100e-003	0.2425	0.0640	1.5800e-003	0.0656	0.0000	198.9314	198.9314	9.7900e-003	0.0000	199.1369

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	7.3215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1816	1.2195	1.1274	1.8100e-003		0.0915	0.0915		0.0915	0.0915	0.0000	155.2379	155.2379	0.0148	0.0000	155.5477
Total	7.5031	1.2195	1.1274	1.8100e-003		0.0915	0.0915		0.0915	0.0915	0.0000	155.2379	155.2379	0.0148	0.0000	155.5477

3.7 Architectural Coating (PA 2) - 2018

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	0.0664	0.1031	1.0828	2.8500e-003	0.2408	1.7100e-003	0.2425	0.0640	1.5800e-003	0.0656	0.0000	198.9314	198.9314	9.7900e-003	0.0000	199.1369
Total	0.0664	0.1031	1.0828	2.8500e-003	0.2408	1.7100e-003	0.2425	0.0640	1.5800e-003	0.0656	0.0000	198.9314	198.9314	9.7900e-003	0.0000	199.1369

3.7 Architectural Coating (PA 2) - 2019

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	9.4409					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2089	1.4389	1.4436	2.3300e-003		0.1010	0.1010		0.1010	0.1010	0.0000	200.1751	200.1751	0.0169	0.0000	200.5302
Total	9.6498	1.4389	1.4436	2.3300e-003		0.1010	0.1010		0.1010	0.1010	0.0000	200.1751	200.1751	0.0169	0.0000	200.5302

3.7 Architectural Coating (PA 2) - 2019

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	0.0777	0.1211	1.2641	3.6600e-003	0.3105	2.1600e-003	0.3127	0.0825	2.0000e-003	0.0845	0.0000	245.7197	245.7197	0.0116	0.0000	245.9641
Total	0.0777	0.1211	1.2641	3.6600e-003	0.3105	2.1600e-003	0.3127	0.0825	2.0000e-003	0.0845	0.0000	245.7197	245.7197	0.0116	0.0000	245.9641

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	9.4409					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2089	1.4389	1.4436	2.3300e-003		0.1010	0.1010		0.1010	0.1010	0.0000	200.1749	200.1749	0.0169	0.0000	200.5299
Total	9.6498	1.4389	1.4436	2.3300e-003		0.1010	0.1010		0.1010	0.1010	0.0000	200.1749	200.1749	0.0169	0.0000	200.5299

3.7 Architectural Coating (PA 2) - 2019

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	0.0777	0.1211	1.2641	3.6600e-003	0.3105	2.1600e-003	0.3127	0.0825	2.0000e-003	0.0845	0.0000	245.7197	245.7197	0.0116	0.0000	245.9641
Total	0.0777	0.1211	1.2641	3.6600e-003	0.3105	2.1600e-003	0.3127	0.0825	2.0000e-003	0.0845	0.0000	245.7197	245.7197	0.0116	0.0000	245.9641

3.8 Building Construction (PA 4) - 2018

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	0.5473	4.7313	3.3756	5.4700e-003		0.2853	0.2853		0.2701	0.2701	0.0000	479.7138	479.7138	0.1096	0.0000	482.0155
Total	0.5473	4.7313	3.3756	5.4700e-003		0.2853	0.2853		0.2701	0.2701	0.0000	479.7138	479.7138	0.1096	0.0000	482.0155

3.8 Building Construction (PA 4) - 2018

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	0.2195	2.1870	3.0449	6.2100e-003	0.1776	0.0350	0.2126	0.0508	0.0322	0.0830	0.0000	547.3914	547.3914	3.9800e-003	0.0000	0.0000	547.4750
Worker	0.2755	0.4278	4.4941	0.0118	0.9996	7.1100e-003	1.0067	0.2655	6.5800e-003	0.2720	0.0000	825.6596	825.6596	0.0406	0.0000	0.0000	826.5126
Total	0.4950	2.6149	7.5390	0.0180	1.1772	0.0421	1.2192	0.3163	0.0388	0.3550	0.0000	1,373.0510	1,373.0510	0.0446	0.0000	0.0000	1,373.9876

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	0.4416	3.7254	3.5113	5.4700e-003		0.2382	0.2382		0.2288	0.2288	0.0000	479.7132	479.7132	0.1096	0.0000	0.0000	482.0149
Total	0.4416	3.7254	3.5113	5.4700e-003		0.2382	0.2382		0.2288	0.2288	0.0000	479.7132	479.7132	0.1096	0.0000	0.0000	482.0149

3.8 Building Construction (PA 4) - 2018

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	0.2195	2.1870	3.0449	6.2100e-003	0.1776	0.0350	0.2126	0.0508	0.0322	0.0830	0.0000	547.3914	547.3914	3.9800e-003	0.0000	547.4750
Worker	0.2755	0.4278	4.4941	0.0118	0.9996	7.1100e-003	1.0067	0.2655	6.5800e-003	0.2720	0.0000	825.6596	825.6596	0.0406	0.0000	826.5126
Total	0.4950	2.6149	7.5390	0.0180	1.1772	0.0421	1.2192	0.3163	0.0388	0.3550	0.0000	1,373.0510	1,373.0510	0.0446	0.0000	1,373.9876

3.8 Building Construction (PA 4) - 2019

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	0.9978	8.8362	6.7959	0.0113		0.5088	0.5088		0.4817	0.4817	0.0000	983.8732	983.8732	0.2220	0.0000	988.5345
Total	0.9978	8.8362	6.7959	0.0113		0.5088	0.5088		0.4817	0.4817	0.0000	983.8732	983.8732	0.2220	0.0000	988.5345

3.8 Building Construction (PA 4) - 2019

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	0.4307	4.1581	6.1273	0.0128	0.3678	0.0695	0.4373	0.1052	0.0639	0.1692	0.0000	1,107.9217	1,107.9217	7.9700e-003	0.0000	0.0000	1,108.0891
Worker	0.5180	0.8073	8.4281	0.0244	2.0705	0.0144	2.0849	0.5499	0.0133	0.5632	0.0000	1,638.3065	1,638.3065	0.0776	0.0000	0.0000	1,639.9356
Total	0.9487	4.9654	14.5554	0.0372	2.4383	0.0839	2.5222	0.6551	0.0773	0.7324	0.0000	2,746.2282	2,746.2282	0.0856	0.0000	0.0000	2,748.0247

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	0.8128	7.1683	7.1937	0.0113		0.4318	0.4318		0.4151	0.4151	0.0000	983.8720	983.8720	0.2220	0.0000	988.5334
Total	0.8128	7.1683	7.1937	0.0113		0.4318	0.4318		0.4151	0.4151	0.0000	983.8720	983.8720	0.2220	0.0000	988.5334

3.8 Building Construction (PA 4) - 2019

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	0.0000
Vendor	0.4307	4.1581	6.1273	0.0128	0.3678	0.0695	0.4373	0.1052	0.0639	0.1692	0.0000	1,107.9217	1,107.9217	7.9700e-003	0.0000	0.0000	1,108.0891
Worker	0.5180	0.8073	8.4281	0.0244	2.0705	0.0144	2.0849	0.5499	0.0133	0.5632	0.0000	1,638.3065	1,638.3065	0.0776	0.0000	0.0000	1,639.9356
Total	0.9487	4.9654	14.5554	0.0372	2.4383	0.0839	2.5222	0.6551	0.0773	0.7324	0.0000	2,746.2282	2,746.2282	0.0856	0.0000	0.0000	2,748.0247

3.8 Building Construction (PA 4) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0446	0.4012	0.3310	5.6000e-004		0.0220	0.0220		0.0208	0.0208	0.0000	48.3625	48.3625	0.0109	0.0000	48.5905
Total	0.0446	0.4012	0.3310	5.6000e-004		0.0220	0.0220		0.0208	0.0208	0.0000	48.3625	48.3625	0.0109	0.0000	48.5905

3.8 Building Construction (PA 4) - 2020

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	0.0203	0.1801	0.2956	6.4000e-004	0.0183	3.1600e-003	0.0215	5.2400e-003	2.9100e-003	8.1500e-003	0.0000	53.9200	53.9200	3.9000e-004	0.0000	53.9281	
Worker	0.0240	0.0371	0.3889	1.2100e-003	0.1031	7.1000e-004	0.1038	0.0274	6.6000e-004	0.0281	0.0000	78.2618	78.2618	3.6400e-003	0.0000	78.3383	
Total	0.0442	0.2172	0.6845	1.8500e-003	0.1215	3.8700e-003	0.1253	0.0326	3.5700e-003	0.0362	0.0000	132.1818	132.1818	4.0300e-003	0.0000	132.2664	

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	0.0367	0.3337	0.3554	5.6000e-004		0.0190	0.0190		0.0183	0.0183	0.0000	48.3625	48.3625	0.0109	0.0000	48.5905	
Total	0.0367	0.3337	0.3554	5.6000e-004		0.0190	0.0190		0.0183	0.0183	0.0000	48.3625	48.3625	0.0109	0.0000	48.5905	

3.8 Building Construction (PA 4) - 2020

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	0.0000
Vendor	0.0203	0.1801	0.2956	6.4000e-004	0.0183	3.1600e-003	0.0215	5.2400e-003	2.9100e-003	8.1500e-003	0.0000	53.9200	53.9200	3.9000e-004	0.0000	53.9281	
Worker	0.0240	0.0371	0.3889	1.2100e-003	0.1031	7.1000e-004	0.1038	0.0274	6.6000e-004	0.0281	0.0000	78.2618	78.2618	3.6400e-003	0.0000	78.3383	
Total	0.0442	0.2172	0.6845	1.8500e-003	0.1215	3.8700e-003	0.1253	0.0326	3.5700e-003	0.0362	0.0000	132.1818	132.1818	4.0300e-003	0.0000	132.2664	

3.9 Architectural Coating (PA 3) - 2018

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	4.8723					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.1302	0.8745	0.8084	1.3000e-003		0.0656	0.0656		0.0656	0.0656	0.0000	111.3221	111.3221	0.0106	0.0000	111.5442	
Total	5.0025	0.8745	0.8084	1.3000e-003		0.0656	0.0656		0.0656	0.0656	0.0000	111.3221	111.3221	0.0106	0.0000	111.5442	

3.9 Architectural Coating (PA 3) - 2018

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	0.0476	0.0739	0.7765	2.0400e-003	0.1727	1.2300e-003	0.1739	0.0459	1.1400e-003	0.0470	0.0000	142.6548	142.6548	7.0200e-003	0.0000	142.8022
Total	0.0476	0.0739	0.7765	2.0400e-003	0.1727	1.2300e-003	0.1739	0.0459	1.1400e-003	0.0470	0.0000	142.6548	142.6548	7.0200e-003	0.0000	142.8022

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	4.8723					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1302	0.8745	0.8084	1.3000e-003		0.0656	0.0656		0.0656	0.0656	0.0000	111.3219	111.3219	0.0106	0.0000	111.5441
Total	5.0025	0.8745	0.8084	1.3000e-003		0.0656	0.0656		0.0656	0.0656	0.0000	111.3219	111.3219	0.0106	0.0000	111.5441

3.9 Architectural Coating (PA 3) - 2018

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	0.0476	0.0739	0.7765	2.0400e-003	0.1727	1.2300e-003	0.1739	0.0459	1.1400e-003	0.0470	0.0000	142.6548	142.6548	7.0200e-003	0.0000	142.8022
Total	0.0476	0.0739	0.7765	2.0400e-003	0.1727	1.2300e-003	0.1739	0.0459	1.1400e-003	0.0470	0.0000	142.6548	142.6548	7.0200e-003	0.0000	142.8022

3.9 Architectural Coating (PA 3) - 2019

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	11.6667					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2782	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5597	266.5597	0.0225	0.0000	267.0325
Total	11.9449	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5597	266.5597	0.0225	0.0000	267.0325

3.9 Architectural Coating (PA 3) - 2019

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	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338
Total	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338

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	11.6667					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2782	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5594	266.5594	0.0225	0.0000	267.0322
Total	11.9449	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5594	266.5594	0.0225	0.0000	267.0322

3.9 Architectural Coating (PA 3) - 2019

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	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338
Total	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338

3.9 Architectural Coating (PA 3) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8400e-003	0.0337	0.0366	6.0000e-005		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	5.1065	5.1065	4.0000e-004	0.0000	5.1148
Total	0.2283	0.0337	0.0366	6.0000e-005		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	5.1065	5.1065	4.0000e-004	0.0000	5.1148

3.9 Architectural Coating (PA 3) - 2020

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	1.8400e-003	2.8500e-003	0.0299	9.0000e-005	7.9200e-003	5.0000e-005	7.9800e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.0118	6.0118	2.8000e-004	0.0000	6.0177
Total	1.8400e-003	2.8500e-003	0.0299	9.0000e-005	7.9200e-003	5.0000e-005	7.9800e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.0118	6.0118	2.8000e-004	0.0000	6.0177

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8400e-003	0.0337	0.0366	6.0000e-005		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	5.1065	5.1065	4.0000e-004	0.0000	5.1148
Total	0.2283	0.0337	0.0366	6.0000e-005		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	5.1065	5.1065	4.0000e-004	0.0000	5.1148

3.9 Architectural Coating (PA 3) - 2020

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	1.8400e-003	2.8500e-003	0.0299	9.0000e-005	7.9200e-003	5.0000e-005	7.9800e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.0118	6.0118	2.8000e-004	0.0000	6.0177
Total	1.8400e-003	2.8500e-003	0.0299	9.0000e-005	7.9200e-003	5.0000e-005	7.9800e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.0118	6.0118	2.8000e-004	0.0000	6.0177

3.10 Architectural Coating (PA 4) - 2018

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	2.7658					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0788	0.5295	0.4895	7.8000e-004		0.0398	0.0398		0.0398	0.0398	0.0000	67.4060	67.4060	6.4000e-003	0.0000	67.5405
Total	2.8447	0.5295	0.4895	7.8000e-004		0.0398	0.0398		0.0398	0.0398	0.0000	67.4060	67.4060	6.4000e-003	0.0000	67.5405

3.10 Architectural Coating (PA 4) - 2018

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	0.0288	0.0448	0.4702	1.2400e-003	0.1046	7.4000e-004	0.1053	0.0278	6.9000e-004	0.0285	0.0000	86.3781	86.3781	4.2500e-003	0.0000	86.4674
Total	0.0288	0.0448	0.4702	1.2400e-003	0.1046	7.4000e-004	0.1053	0.0278	6.9000e-004	0.0285	0.0000	86.3781	86.3781	4.2500e-003	0.0000	86.4674

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	2.7658					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0788	0.5295	0.4895	7.8000e-004		0.0398	0.0398		0.0398	0.0398	0.0000	67.4059	67.4059	6.4000e-003	0.0000	67.5404
Total	2.8447	0.5295	0.4895	7.8000e-004		0.0398	0.0398		0.0398	0.0398	0.0000	67.4059	67.4059	6.4000e-003	0.0000	67.5404

3.10 Architectural Coating (PA 4) - 2018

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	0.0288	0.0448	0.4702	1.2400e-003	0.1046	7.4000e-004	0.1053	0.0278	6.9000e-004	0.0285	0.0000	86.3781	86.3781	4.2500e-003	0.0000	86.4674
Total	0.0288	0.0448	0.4702	1.2400e-003	0.1046	7.4000e-004	0.1053	0.0278	6.9000e-004	0.0285	0.0000	86.3781	86.3781	4.2500e-003	0.0000	86.4674

3.10 Architectural Coating (PA 4) - 2019

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	10.9375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2782	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5597	266.5597	0.0225	0.0000	267.0325
Total	11.2157	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5597	266.5597	0.0225	0.0000	267.0325

3.10 Architectural Coating (PA 4) - 2019

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	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338
Total	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338

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	10.9375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2782	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5594	266.5594	0.0225	0.0000	267.0322
Total	11.2157	1.9161	1.9223	3.1000e-003		0.1344	0.1344		0.1344	0.1344	0.0000	266.5594	266.5594	0.0225	0.0000	267.0322

3.10 Architectural Coating (PA 4) - 2019

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	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338
Total	0.1035	0.1612	1.6833	4.8700e-003	0.4135	2.8700e-003	0.4164	0.1098	2.6600e-003	0.1125	0.0000	327.2084	327.2084	0.0155	0.0000	327.5338

3.10 Architectural Coating (PA 4) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.0592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0707	0.4917	0.5348	8.7000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	74.5550	74.5550	5.7700e-003	0.0000	74.6762
Total	3.1299	0.4917	0.5348	8.7000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	74.5550	74.5550	5.7700e-003	0.0000	74.6762

3.10 Architectural Coating (PA 4) - 2020

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	0.0269	0.0416	0.4362	1.3600e-003	0.1157	8.0000e-004	0.1165	0.0307	7.4000e-004	0.0315	0.0000	87.7725	87.7725	4.0900e-003	0.0000	87.8583
Total	0.0269	0.0416	0.4362	1.3600e-003	0.1157	8.0000e-004	0.1165	0.0307	7.4000e-004	0.0315	0.0000	87.7725	87.7725	4.0900e-003	0.0000	87.8583

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	3.0592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0707	0.4917	0.5348	8.7000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	74.5549	74.5549	5.7700e-003	0.0000	74.6761
Total	3.1299	0.4917	0.5348	8.7000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	74.5549	74.5549	5.7700e-003	0.0000	74.6761

3.10 Architectural Coating (PA 4) - 2020

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	0.0269	0.0416	0.4362	1.3600e-003	0.1157	8.0000e-004	0.1165	0.0307	7.4000e-004	0.0315	0.0000	87.7725	87.7725	4.0900e-003	0.0000	87.8583
Total	0.0269	0.0416	0.4362	1.3600e-003	0.1157	8.0000e-004	0.1165	0.0307	7.4000e-004	0.0315	0.0000	87.7725	87.7725	4.0900e-003	0.0000	87.8583

3.11 Paving (PA 2) - 2019

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	0.1241	1.2994	1.2498	1.9400e-003		0.0704	0.0704		0.0648	0.0648	0.0000	174.3434	174.3434	0.0552	0.0000	175.5017
Paving	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1347	1.2994	1.2498	1.9400e-003		0.0704	0.0704		0.0648	0.0648	0.0000	174.3434	174.3434	0.0552	0.0000	175.5017

3.11 Paving (PA 2) - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5800e-003	5.5800e-003	0.0583	1.7000e-004	0.0143	1.0000e-004	0.0144	3.8000e-003	9.0000e-005	3.8900e-003	0.0000	11.3221	11.3221	5.4000e-004	0.0000	11.3334
Total	3.5800e-003	5.5800e-003	0.0583	1.7000e-004	0.0143	1.0000e-004	0.0144	3.8000e-003	9.0000e-005	3.8900e-003	0.0000	11.3221	11.3221	5.4000e-004	0.0000	11.3334

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	0.1241	1.2994	1.2498	1.9400e-003		0.0704	0.0704		0.0648	0.0648	0.0000	174.3432	174.3432	0.0552	0.0000	175.5015
Paving	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1347	1.2994	1.2498	1.9400e-003		0.0704	0.0704		0.0648	0.0648	0.0000	174.3432	174.3432	0.0552	0.0000	175.5015

3.11 Paving (PA 2) - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5800e-003	5.5800e-003	0.0583	1.7000e-004	0.0143	1.0000e-004	0.0144	3.8000e-003	9.0000e-005	3.8900e-003	0.0000	11.3221	11.3221	5.4000e-004	0.0000	11.3334
Total	3.5800e-003	5.5800e-003	0.0583	1.7000e-004	0.0143	1.0000e-004	0.0144	3.8000e-003	9.0000e-005	3.8900e-003	0.0000	11.3221	11.3221	5.4000e-004	0.0000	11.3334

3.11 Paving (PA 2) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2434	2.5226	2.6265	4.0800e-003		0.1352	0.1352		0.1244	0.1244	0.0000	358.7177	358.7177	0.1160	0.0000	361.1540
Paving	0.0224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2658	2.5226	2.6265	4.0800e-003		0.1352	0.1352		0.1244	0.1244	0.0000	358.7177	358.7177	0.1160	0.0000	361.1540

3.11 Paving (PA 2) - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9900e-003	0.0108	0.1135	3.5000e-004	0.0301	2.1000e-004	0.0303	7.9900e-003	1.9000e-004	8.1900e-003	0.0000	22.8408	22.8408	1.0600e-003	0.0000	22.8631
Total	6.9900e-003	0.0108	0.1135	3.5000e-004	0.0301	2.1000e-004	0.0303	7.9900e-003	1.9000e-004	8.1900e-003	0.0000	22.8408	22.8408	1.0600e-003	0.0000	22.8631

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	0.2434	2.5226	2.6265	4.0800e-003		0.1352	0.1352		0.1244	0.1244	0.0000	358.7173	358.7173	0.1160	0.0000	361.1536
Paving	0.0224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2658	2.5226	2.6265	4.0800e-003		0.1352	0.1352		0.1244	0.1244	0.0000	358.7173	358.7173	0.1160	0.0000	361.1536

3.11 Paving (PA 2) - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9900e-003	0.0108	0.1135	3.5000e-004	0.0301	2.1000e-004	0.0303	7.9900e-003	1.9000e-004	8.1900e-003	0.0000	22.8408	22.8408	1.0600e-003	0.0000	22.8631
Total	6.9900e-003	0.0108	0.1135	3.5000e-004	0.0301	2.1000e-004	0.0303	7.9900e-003	1.9000e-004	8.1900e-003	0.0000	22.8408	22.8408	1.0600e-003	0.0000	22.8631

3.12 Paving (PA 3) - 2019

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	0.0613	0.6422	0.6177	9.6000e-004		0.0348	0.0348		0.0320	0.0320	0.0000	86.1697	86.1697	0.0273	0.0000	86.7422
Paving	5.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0666	0.6422	0.6177	9.6000e-004		0.0348	0.0348		0.0320	0.0320	0.0000	86.1697	86.1697	0.0273	0.0000	86.7422

3.12 Paving (PA 3) - 2019

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	1.7700e-003	2.7600e-003	0.0288	8.0000e-005	7.0700e-003	5.0000e-005	7.1200e-003	1.8800e-003	5.0000e-005	1.9200e-003	0.0000	5.5960	5.5960	2.6000e-004	0.0000	5.6015
Total	1.7700e-003	2.7600e-003	0.0288	8.0000e-005	7.0700e-003	5.0000e-005	7.1200e-003	1.8800e-003	5.0000e-005	1.9200e-003	0.0000	5.5960	5.5960	2.6000e-004	0.0000	5.6015

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	0.0613	0.6422	0.6177	9.6000e-004		0.0348	0.0348		0.0320	0.0320	0.0000	86.1696	86.1696	0.0273	0.0000	86.7421
Paving	5.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0666	0.6422	0.6177	9.6000e-004		0.0348	0.0348		0.0320	0.0320	0.0000	86.1696	86.1696	0.0273	0.0000	86.7421

3.12 Paving (PA 3) - 2019

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	1.7700e-003	2.7600e-003	0.0288	8.0000e-005	7.0700e-003	5.0000e-005	7.1200e-003	1.8800e-003	5.0000e-005	1.9200e-003	0.0000	5.5960	5.5960	2.6000e-004	0.0000	5.6015
Total	1.7700e-003	2.7600e-003	0.0288	8.0000e-005	7.0700e-003	5.0000e-005	7.1200e-003	1.8800e-003	5.0000e-005	1.9200e-003	0.0000	5.5960	5.5960	2.6000e-004	0.0000	5.6015

3.12 Paving (PA 3) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3033	3.1429	3.2723	5.0900e-003		0.1685	0.1685		0.1550	0.1550	0.0000	446.9269	446.9269	0.1446	0.0000	449.9624
Paving	0.0278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3310	3.1429	3.2723	5.0900e-003		0.1685	0.1685		0.1550	0.1550	0.0000	446.9269	446.9269	0.1446	0.0000	449.9624

3.12 Paving (PA 3) - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7100e-003	0.0135	0.1414	4.4000e-004	0.0375	2.6000e-004	0.0378	9.9600e-003	2.4000e-004	0.0102	0.0000	28.4573	28.4573	1.3200e-003	0.0000	28.4851
Total	8.7100e-003	0.0135	0.1414	4.4000e-004	0.0375	2.6000e-004	0.0378	9.9600e-003	2.4000e-004	0.0102	0.0000	28.4573	28.4573	1.3200e-003	0.0000	28.4851

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	0.3033	3.1429	3.2723	5.0900e-003		0.1685	0.1685		0.1550	0.1550	0.0000	446.9264	446.9264	0.1446	0.0000	449.9619
Paving	0.0278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3310	3.1429	3.2723	5.0900e-003		0.1685	0.1685		0.1550	0.1550	0.0000	446.9264	446.9264	0.1446	0.0000	449.9619

3.12 Paving (PA 3) - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7100e-003	0.0135	0.1414	4.4000e-004	0.0375	2.6000e-004	0.0378	9.9600e-003	2.4000e-004	0.0102	0.0000	28.4573	28.4573	1.3200e-003	0.0000	28.4851
Total	8.7100e-003	0.0135	0.1414	4.4000e-004	0.0375	2.6000e-004	0.0378	9.9600e-003	2.4000e-004	0.0102	0.0000	28.4573	28.4573	1.3200e-003	0.0000	28.4851

3.13 Paving (PA 4) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3232	3.3496	3.4876	5.4200e-003		0.1796	0.1796		0.1652	0.1652	0.0000	476.3300	476.3300	0.1541	0.0000	479.5652
Paving	0.0330					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3562	3.3496	3.4876	5.4200e-003		0.1796	0.1796		0.1652	0.1652	0.0000	476.3300	476.3300	0.1541	0.0000	479.5652

3.13 Paving (PA 4) - 2020

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	9.2900e-003	0.0144	0.1507	4.7000e-004	0.0400	2.8000e-004	0.0402	0.0106	2.6000e-004	0.0109	0.0000	30.3295	30.3295	1.4100e-003	0.0000	30.3592	
Total	9.2900e-003	0.0144	0.1507	4.7000e-004	0.0400	2.8000e-004	0.0402	0.0106	2.6000e-004	0.0109	0.0000	30.3295	30.3295	1.4100e-003	0.0000	30.3592	

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	0.3232	3.3496	3.4876	5.4200e-003		0.1796	0.1796		0.1652	0.1652	0.0000	476.3295	476.3295	0.1541	0.0000	479.5646
Paving	0.0330					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3562	3.3496	3.4876	5.4200e-003		0.1796	0.1796		0.1652	0.1652	0.0000	476.3295	476.3295	0.1541	0.0000	479.5646

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Apartments Low Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Hotel	0.00	0.00	0.00	19.40	61.60	19.00	58	38	4
Office Park	0.00	0.00	0.00	33.00	48.00	19.00	82	15	3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

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	12.8942	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625
Unmitigated	13.0015	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625

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	1.6763					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.0682					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2571	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625
Total	13.0015	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625

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	1.5689					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.0682					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2571	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625
Total	12.8942	0.0962	8.3315	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5806	13.5806	0.0134	0.0000	13.8625

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

CALEEMOD EMISSIONS MODEL OUTPUTS
PLANNING AREA 1B BAU (LIGHT INDUSTRIAL)

Planning Area 1B Light Industrial BAU (Cars Only)
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	620.03	1000sqft	14.23	620,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2005
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 - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Consumer Products -

Energy Use -

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Area Mitigation - no mitigation

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	LandUseSquareFeet	620,030.00	620,027.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.09	0.00
tblVehicleEF	LDT2	0.22	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD2	8.4280e-003	0.00
tblVehicleEF	MCY	7.0040e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	3.0440e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	6.7400e-004	0.00
tblVehicleEF	SBUS	1.0280e-003	0.00
tblVehicleEF	UBUS	8.7200e-004	0.00
tblVehicleTrips	ST_TR	1.32	5.48
tblVehicleTrips	SU_TR	0.68	5.48
tblVehicleTrips	WD_TR	6.97	5.48
tblWater	IndoorWaterUseRate	143,381,937.50	10,390,791.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Energy	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	3,167.100 2	3,167.100 2	0.1155	0.0400	3,181.930 6
Mobile	5.8166	6.9895	78.5120	0.0642	5.1627	0.1740	5.3367	1.4925	0.1740	1.6665	0.0000	5,818.048 7	5,818.048 7	0.6506	0.0000	5,831.710 2
Offroad	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	3.2965	38.7180	42.0145	0.3404	8.3600e-003	51.7546
Total	9.0669	9.9460	79.8632	0.0857	5.1627	0.3210	5.4837	1.4925	0.3210	1.8134	159.3641	9,162.183 7	9,321.547 8	10.3442	0.0484	9,553.772 7

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	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Energy	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	3,167.1002	3,167.1002	0.1155	0.0400	3,181.9306
Mobile	5.8166	6.9895	78.5120	0.0642	5.1627	0.1740	5.3367	1.4925	0.1740	1.6665	0.0000	5,818.0487	5,818.0487	0.6506	0.0000	5,831.7102
Offroad	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	3.2965	38.7180	42.0145	0.3403	8.3500e-003	51.7494
Total	9.0669	9.9460	79.8632	0.0857	5.1627	0.3210	5.4837	1.4925	0.3210	1.8134	159.3641	9,162.1837	9,321.5478	10.3441	0.0484	9,553.7675

	ROG	NOx	CO	SO2	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	1.95	19.37	0.60	17.85	0.00	21.40	1.25	0.00	21.40	3.79	0.00	1.51	1.48	0.14	0.02	1.45

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	5.8166	6.9895	78.5120	0.0642	5.1627	0.1740	5.3367	1.4925	0.1740	1.6665	0.0000	5,818.0487	5,818.0487	0.6506	0.0000	5,831.7102
Mitigated	5.8166	6.9895	78.5120	0.0642	5.1627	0.1740	5.3367	1.4925	0.1740	1.6665	0.0000	5,818.0487	5,818.0487	0.6506	0.0000	5,831.7102

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	3,397.76	3,397.76	3397.76	15,046,244	15,046,244
Total	3,397.76	3,397.76	3,397.76	15,046,244	15,046,244

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,045.7817	2,045.7817	0.0940	0.0195	2,053.7879
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,045.7817	2,045.7817	0.0940	0.0195	2,053.7879
NaturalGas Mitigated	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427

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					
General Light Industry	2.10127e+007	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427
Total		0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.10127e+007	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427
Total		0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	7.14891e+006	2,045.7817	0.0940	0.0195	2,053.7879
Total		2,045.7817	0.0940	0.0195	2,053.7879

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	7.14891e+006	2,045.7817	0.0940	0.0195	2,053.7879
Total		2,045.7817	0.0940	0.0195	2,053.7879

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Mitigated	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-003	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Total	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-003	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Total	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	42.0145	0.3404	8.3600e-003	51.7546
Mitigated	42.0145	0.3403	8.3500e-003	51.7494

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.3908 / 0	42.0145	0.3404	8.3600e-003	51.7546
Total		42.0145	0.3404	8.3600e-003	51.7546

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.3908 / 0	42.0145	0.3403	8.3500e-003	51.7494
Total		42.0145	0.3403	8.3500e-003	51.7494

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	156.0676	9.2233	0.0000	349.7575
Unmitigated	156.0676	9.2233	0.0000	349.7575

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	3	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030
Total	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030

10.0 Vegetation

Planning Area 1B Light Industrial BAU (Trucks Only)
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	620.03	1000sqft	14.23	620,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2005
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 - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Consumer Products -

Energy Use -

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Area Mitigation - no mitigation

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	LandUseSquareFeet	620,030.00	620,027.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.09	0.00
tblVehicleEF	LDT2	0.22	0.00
tblVehicleEF	LHD1	0.03	0.38
tblVehicleEF	LHD2	8.4280e-003	0.00
tblVehicleEF	MCY	7.0040e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	3.0440e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	6.7400e-004	0.00
tblVehicleEF	SBUS	1.0280e-003	0.00
tblVehicleEF	UBUS	8.7200e-004	0.00
tblVehicleTrips	CC_TL	8.40	44.00
tblVehicleTrips	CNW_TL	6.90	44.00
tblVehicleTrips	CW_TL	16.60	44.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	143,381,937.50	10,390,791.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Energy	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	3,167.1002	3,167.1002	0.1155	0.0400	3,181.9306
Mobile	14.1264	192.6384	106.2151	1.3110	4.9658	7.3678	12.3336	1.5999	7.3678	8.9677	0.0000	17,376.2036	17,376.2036	0.6903	0.0000	17,390.6987
Offroad	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	3.2965	38.7180	42.0145	0.3404	8.3600e-003	51.7546
Total	17.3767	195.5949	107.5663	1.3325	4.9658	7.5148	12.4806	1.5999	7.5148	9.1147	159.3641	20,720.3386	20,879.7027	10.3839	0.0484	21,112.7613

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	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Energy	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	3,167.1002	3,167.1002	0.1155	0.0400	3,181.9306
Mobile	14.1264	192.6384	106.2151	1.3110	4.9658	7.3678	12.3336	1.5999	7.3678	8.9677	0.0000	17,376.2036	17,376.2036	0.6903	0.0000	17,390.6987
Offroad	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	3.2965	38.7180	42.0145	0.3403	8.3500e-003	51.7494
Total	17.3767	195.5949	107.5663	1.3325	4.9658	7.5148	12.4806	1.5999	7.5148	9.1147	159.3641	20,720.3386	20,879.7027	10.3838	0.0484	21,112.7561

	ROG	NOx	CO	SO2	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	1.02	0.98	0.44	1.15	0.00	0.91	0.55	0.00	0.91	0.75	0.00	0.67	0.66	0.14	0.02	0.66

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	14.1264	192.6384	106.2151	1.3110	4.9658	7.3678	12.3336	1.5999	7.3678	8.9677	0.0000	17,376.2036	17,376.2036	0.6903	0.0000	17,390.6987
Mitigated	14.1264	192.6384	106.2151	1.3110	4.9658	7.3678	12.3336	1.5999	7.3678	8.9677	0.0000	17,376.2036	17,376.2036	0.6903	0.0000	17,390.6987

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	923.84	923.84	923.84	13,798,556	13,798,556
Total	923.84	923.84	923.84	13,798,556	13,798,556

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
General Light Industry	44.00	44.00	44.00	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.380000	0.000000	0.180000	0.440000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,045.7817	2,045.7817	0.0940	0.0195	2,053.7879
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,045.7817	2,045.7817	0.0940	0.0195	2,053.7879
NaturalGas Mitigated	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427

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					
General Light Industry	2.10127e+007	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427
Total		0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.10127e+007	0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427
Total		0.1133	1.0300	0.8652	6.1800e-003		0.0783	0.0783		0.0783	0.0783	0.0000	1,121.3185	1,121.3185	0.0215	0.0206	1,128.1427

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	7.14891e+006	2,045.7817	0.0940	0.0195	2,053.7879
Total		2,045.7817	0.0940	0.0195	2,053.7879

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	7.14891e+006	2,045.7817	0.0940	0.0195	2,053.7879
Total		2,045.7817	0.0940	0.0195	2,053.7879

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Mitigated	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-003	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Total	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-003	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169
Total	2.9602	1.2000e-004	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0154	0.0154	7.0000e-005	0.0000	0.0169

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	42.0145	0.3404	8.3600e-003	51.7546
Mitigated	42.0145	0.3403	8.3500e-003	51.7494

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.3908 / 0	42.0145	0.3404	8.3600e-003	51.7546
Total		42.0145	0.3404	8.3600e-003	51.7546

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.3908 / 0	42.0145	0.3403	8.3500e-003	51.7494
Total		42.0145	0.3403	8.3500e-003	51.7494

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	156.0676	9.2233	0.0000	349.7575
Unmitigated	156.0676	9.2233	0.0000	349.7575

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	3	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030
Total	0.1768	1.9264	0.4759	0.0153		0.0687	0.0687		0.0687	0.0687	0.0000	138.3015	138.3015	0.0144	0.0000	138.6030

10.0 Vegetation

CALEEMOD EMISSIONS MODEL OUTPUTS
PLANNING AREA 1B BAU (HIGH-CUBE WAREHOUSE)

Planning Area 1B High-Cube Warehouse BAU (Cars Only)
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	2,386.97	1000sqft	54.80	2,386,973.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2005
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 - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Energy Use -

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	70.00	1.00
tblLandUse	LandUseSquareFeet	2,386,970.00	2,386,973.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	9.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.09	0.00
tblVehicleEF	LDT2	0.22	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD2	8.4280e-003	0.00
tblVehicleEF	MCY	7.0040e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	3.0440e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	6.7400e-004	0.00
tblVehicleEF	SBUS	1.0280e-003	0.00
tblVehicleEF	UBUS	8.7200e-004	0.00
tblVehicleTrips	ST_TR	2.59	1.34
tblVehicleTrips	SU_TR	2.59	1.34
tblVehicleTrips	WD_TR	2.59	1.34
tblWater	IndoorWaterUseRate	551,986,812.50	40,002,350.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Energy	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	2,491.8897	2,491.8897	0.1060	0.0265	2,502.3363
Mobile	5.3952	6.3889	71.8553	0.0585	4.7036	0.1588	4.8623	1.3597	0.1588	1.5185	0.0000	5,303.4596	5,303.4596	0.5942	0.0000	5,315.9375
Offroad	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	12.6909	149.0559	161.7468	1.3103	0.0322	199.2443
Total	17.3541	12.4622	73.5685	0.1061	4.7036	0.3872	5.0908	1.3597	0.3872	1.7470	468.1519	8,359.3689	8,827.5208	28.9708	0.0587	9,454.1096

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	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Energy	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	2,491.8897	2,491.8897	0.1060	0.0265	2,502.3363
Mobile	5.3952	6.3889	71.8553	0.0585	4.7036	0.1588	4.8623	1.3597	0.1588	1.5185	0.0000	5,303.4596	5,303.4596	0.5942	0.0000	5,315.9375
Offroad	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	12.6909	149.0559	161.7468	1.3101	0.0322	199.2241
Total	17.3541	12.4622	73.5685	0.1061	4.7036	0.3872	5.0908	1.3597	0.3872	1.7470	468.1519	8,359.3689	8,827.5208	28.9706	0.0587	9,454.0893

	ROG	NOx	CO	SO2	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	3.06	46.37	1.94	43.22	0.00	53.20	4.05	0.00	53.20	11.79	0.00	4.96	4.70	0.15	0.09	4.40

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	5.3952	6.3889	71.8553	0.0585	4.7036	0.1588	4.8623	1.3597	0.1588	1.5185	0.0000	5,303.4596	5,303.4596	0.5942	0.0000	5,315.9375
Mitigated	5.3952	6.3889	71.8553	0.0585	4.7036	0.1588	4.8623	1.3597	0.1588	1.5185	0.0000	5,303.4596	5,303.4596	0.5942	0.0000	5,315.9375

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	3,198.54	3,198.54	3198.54	13,708,053	13,708,053
Total	3,198.54	3,198.54	3,198.54	13,708,053	13,708,053

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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,172.1710	2,172.1710	0.0999	0.0207	2,180.6718
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,172.1710	2,172.1710	0.0999	0.0207	2,180.6718
NaturalGas Mitigated	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645

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 Pail	5.9913e+006	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645
Total		0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	5.9913e+006	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645
Total		0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	7.59057e+006	2,172.1710	0.0999	0.0207	2,180.6718
Total		2,172.1710	0.0999	0.0207	2,180.6718

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	7.59057e+006	2,172.1710	0.0999	0.0207	2,180.6718
Total		2,172.1710	0.0999	0.0207	2,180.6718

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Mitigated	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0100e-003	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Total	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0100e-003	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Total	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	161.7468	1.3103	0.0322	199.2443
Mitigated	161.7468	1.3101	0.0322	199.2241

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Pool	40.0024 / 0	161.7468	1.3103	0.0322	199.2443
Total		161.7468	1.3103	0.0322	199.2443

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	40.0024 / 0	161.7468	1.3101	0.0322	199.2241
Total		161.7468	1.3101	0.0322	199.2241

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	455.4610	26.9170	0.0000	1,020.7174
Unmitigated	455.4610	26.9170	0.0000	1,020.7174

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	9	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090
Total	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090

10.0 Vegetation

Planning Area 1B High-Cube Warehouse BAU (Trucks Only)
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	2,386.97	1000sqft	54.80	2,386,973.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2005
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 - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Energy Use -

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	70.00	1.00
tblLandUse	LandUseSquareFeet	2,386,970.00	2,386,973.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	9.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.04	0.59
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.09	0.00
tblVehicleEF	LDT2	0.22	0.00
tblVehicleEF	LHD1	0.03	0.18
tblVehicleEF	LHD2	8.4280e-003	0.00
tblVehicleEF	MCY	7.0040e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	3.0440e-003	0.00
tblVehicleEF	MHD	0.02	0.23
tblVehicleEF	OBUS	6.7400e-004	0.00
tblVehicleEF	SBUS	1.0280e-003	0.00
tblVehicleEF	UBUS	8.7200e-004	0.00
tblVehicleTrips	CC_TL	8.40	44.00
tblVehicleTrips	CNW_TL	6.90	44.00
tblVehicleTrips	CW_TL	16.60	44.00
tblVehicleTrips	ST_TR	2.59	0.34
tblVehicleTrips	SU_TR	2.59	0.34
tblVehicleTrips	WD_TR	2.59	0.34
tblWater	IndoorWaterUseRate	551,986,812.50	40,002,350.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Energy	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	2,491.8897	2,491.8897	0.1060	0.0265	2,502.3363
Mobile	15.0477	211.8343	97.8082	1.4836	4.4225	8.6012	13.0237	1.4656	8.6012	10.0668	0.0000	17,899.2861	17,899.2861	0.6854	0.0000	17,913.6799
Offroad	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	12.6909	149.0559	161.7468	1.3103	0.0322	199.2443
Total	27.0066	217.9075	99.5214	1.5312	4.4225	8.8297	13.2521	1.4656	8.8297	10.2953	468.1519	20,955.1955	21,423.3473	29.0621	0.0587	22,051.8520

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	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Energy	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	2,491.8897	2,491.8897	0.1060	0.0265	2,502.3363
Mobile	15.0477	211.8343	97.8082	1.4836	4.4225	8.6012	13.0237	1.4656	8.6012	10.0668	0.0000	17,899.2861	17,899.2861	0.6854	0.0000	17,913.6799
Offroad	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	12.6909	149.0559	161.7468	1.3101	0.0322	199.2241
Total	27.0066	217.9075	99.5214	1.5312	4.4225	8.8297	13.2521	1.4656	8.8297	10.2953	468.1519	20,955.1955	21,423.3473	29.0618	0.0587	22,051.8317

	ROG	NOx	CO	SO2	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	1.96	2.65	1.43	3.00	0.00	2.33	1.55	0.00	2.33	2.00	0.00	1.98	1.94	0.15	0.09	1.89

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	15.0477	211.8343	97.8082	1.4836	4.4225	8.6012	13.0237	1.4656	8.6012	10.0668	0.0000	17,899.2861	17,899.2861	0.6854	0.0000	17,913.6799
Mitigated	15.0477	211.8343	97.8082	1.4836	4.4225	8.6012	13.0237	1.4656	8.6012	10.0668	0.0000	17,899.2861	17,899.2861	0.6854	0.0000	17,913.6799

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	811.57	811.57	811.57	12,121,632	12,121,632
Total	811.57	811.57	811.57	12,121,632	12,121,632

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
Unrefrigerated Warehouse-No	44.00	44.00	44.00	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.180000	0.000000	0.230000	0.590000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,172.1710	2,172.1710	0.0999	0.0207	2,180.6718
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,172.1710	2,172.1710	0.0999	0.0207	2,180.6718
NaturalGas Mitigated	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645

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 Pail	5.9913e+006	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645
Total		0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	5.9913e+006	0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645
Total		0.0323	0.2937	0.2467	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	319.7187	319.7187	6.1300e-003	5.8600e-003	321.6645

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	7.59057e+006	2,172.1710	0.0999	0.0207	2,180.6718
Total		2,172.1710	0.0999	0.0207	2,180.6718

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	7.59057e+006	2,172.1710	0.0999	0.0207	2,180.6718
Total		2,172.1710	0.0999	0.0207	2,180.6718

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Mitigated	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0100e-003	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Total	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0100e-003	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650
Total	11.3962	4.6000e-004	0.0388	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.0592	0.0592	2.8000e-004	0.0000	0.0650

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	161.7468	1.3103	0.0322	199.2443
Mitigated	161.7468	1.3101	0.0322	199.2241

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Pool	40.0024 / 0	161.7468	1.3103	0.0322	199.2443
Total		161.7468	1.3103	0.0322	199.2443

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Pail	40.0024 / 0	161.7468	1.3101	0.0322	199.2241
Total		161.7468	1.3101	0.0322	199.2241

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	455.4610	26.9170	0.0000	1,020.7174
Unmitigated	455.4610	26.9170	0.0000	1,020.7174

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	9	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090
Total	0.5304	5.7791	1.4277	0.0459		0.2060	0.2060		0.2060	0.2060	0.0000	414.9045	414.9045	0.0431	0.0000	415.8090

10.0 Vegetation

CALEEMOD EMISSIONS MODEL OUTPUTS

PLANNING AREA 1B BAU CONSOLIDATED
(LIGHT INDUSTRIAL + HIGH-CUBE WAREHOUSE)

PHASE 1B ANNUAL 2005 (BAU)

Light Industrial Peak Operation Emissions (BAU)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2e
Area Source	0.02	7.00E-05	--	0.02
Energy Source	3,167.10	0.12	0.04	3,181.93
Mobile (Passenger Cars)	5,818.05	0.65	--	5,831.71
Mobile (Trucks)	17,376.20	0.69	--	17,390.70
Onsite Equipment	138.30	0.01	--	138.60
Waste	156.07	9.22	--	349.76
Water Usage	42.01	0.34	8.36E-03	51.75
Total	26,697.75	11.03	0.05	26,944.47

High-Cube Warehouse Peak Operation Emissions (BAU)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2e
Area Source	0.06	2.80E-04	--	0.07
Energy Source	2,491.89	1.10E-01	0.03	2,502.34
Mobile (Passenger Cars)	5,303.46	0.59	--	5,315.94
Mobile (Trucks)	17,899.28	0.69	--	17,913.68
Onsite Equipment	414.90	0.04	--	415.81
Waste	455.46	26.92	--	1,020.72
Water Usage	161.75	1.31	3.00E-02	199.24
Total	26,726.80	29.66	0.06	27,367.80

Planning Area 1 Peak Operation Emissions (BAU)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2e
Area Source	0.08	3.50E-04	--	0.09
Energy Source	5658.99	0.23	0.07	5684.27
Mobile (Passenger Cars)	11121.51	1.24	--	11147.65
Mobile (Trucks)	35275.48	1.38	--	35304.38
Onsite Equipment	553.20	0.05	--	554.41
Waste	611.53	36.14	--	1370.48
Water Usage	203.76	1.65	3.84E-02	250.99
Total	53424.55	40.69	0.11	54,312.27

CALEEMOD EMISSIONS MODEL OUTPUTS

PLANNING AREAS 2-4 BAU

Planning Area 2, 3, 4 BAU
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	280.00	1000sqft	6.43	280,000.00	0
Parking Lot	2,800.00	Space	25.20	1,120,000.00	0
Hotel	600.00	Room	20.00	345,000.00	0
Apartments Low Rise	800.00	Dwelling Unit	50.00	800,000.00	2288
Regional Shopping Center	505.00	1000sqft	11.59	505,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2005
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 - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - assumed 2 spaces per dwelling unit/hotel room

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR adjusted to be consistant with the Daily TR within the TIA

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - no woodstoves. all natural gas fireplaces

Area Coating -

Energy Use -

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment.

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - no mitigation

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	110
tblConstructionPhase	NumDays	200.00	1.00
tblFireplaces	NumberGas	680.00	800.00
tblFireplaces	NumberNoFireplace	80.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblLandUse	LandUseSquareFeet	871,200.00	345,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	11.42	11.03
tblVehicleTrips	WD_TR	42.94	42.70
tblWater	IndoorWaterUseRate	52,123,220.50	44,384,000.00
tblWater	IndoorWaterUseRate	15,220,062.00	32,850,000.00
tblWater	IndoorWaterUseRate	49,765,449.44	19,146,550.00
tblWater	IndoorWaterUseRate	37,406,623.35	34,530,349.00
tblWater	OutdoorWaterUseRate	32,860,291.18	0.00
tblWater	OutdoorWaterUseRate	1,691,118.00	0.00
tblWater	OutdoorWaterUseRate	30,501,404.49	0.00
tblWater	OutdoorWaterUseRate	22,926,640.12	0.00
tblWoodstoves	NumberCatalytic	40.00	0.00
tblWoodstoves	NumberNoncatalytic	40.00	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	13.4999	0.1309	9.6373	4.4000e-004		0.0541	0.0541		0.0539	0.0539	0.0000	205.6900	205.6900	0.0258	3.5200e-003	207.3225
Energy	0.2019	1.8014	1.2906	0.0110		0.1395	0.1395		0.1395	0.1395	0.0000	8,694.7250	8,694.7250	0.3461	0.1003	8,733.0930
Mobile	56.7362	168.1629	604.8324	1.1512	28.3273	5.1930	33.5203	8.2700	5.1930	13.4630	0.0000	44,039.3721	44,039.3721	4.1906	0.0000	44,127.3756
Waste						0.0000	0.0000		0.0000	0.0000	301.8780	0.0000	301.8780	17.8405	0.0000	676.5281
Water						0.0000	0.0000		0.0000	0.0000	41.5320	487.7975	529.3294	4.2882	0.1054	652.0431
Total	70.4381	170.0952	615.7603	1.1626	28.3273	5.3866	33.7139	8.2700	5.3864	13.6564	343.4100	53,427.5845	53,770.9945	26.6911	0.2092	54,396.3623

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	13.4999	0.1309	9.6373	4.4000e-004		0.0541	0.0541		0.0539	0.0539	0.0000	205.6900	205.6900	0.0258	3.5200e-003	207.3225
Energy	0.2019	1.8014	1.2906	0.0110		0.1395	0.1395		0.1395	0.1395	0.0000	8,694.7250	8,694.7250	0.3461	0.1003	8,733.0930
Mobile	56.7362	168.1629	604.8324	1.1512	28.3273	5.1930	33.5203	8.2700	5.1930	13.4630	0.0000	44,039.3721	44,039.3721	4.1906	0.0000	44,127.3756
Waste						0.0000	0.0000		0.0000	0.0000	301.8780	0.0000	301.8780	17.8405	0.0000	676.5281
Water						0.0000	0.0000		0.0000	0.0000	41.5320	487.7975	529.3294	4.2874	0.1052	651.9768
Total	70.4381	170.0952	615.7603	1.1626	28.3273	5.3866	33.7139	8.2700	5.3864	13.6564	343.4100	53,427.5845	53,770.9945	26.6904	0.2090	54,396.2960

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	56.7362	168.1629	604.8324	1.1512	28.3273	5.1930	33.5203	8.2700	5.1930	13.4630	0.0000	44,039.37 21	44,039.37 21	4.1906	0.0000	44,127.37 56
Unmitigated	56.7362	168.1629	604.8324	1.1512	28.3273	5.1930	33.5203	8.2700	5.1930	13.4630	0.0000	44,039.37 21	44,039.37 21	4.1906	0.0000	44,127.37 56

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	5,320.00	5,728.00	4856.00	18,151,911	18,151,911
Hotel	4,902.00	4,914.00	3570.00	11,247,047	11,247,047
Office Park	3,088.40	459.20	212.80	7,777,654	7,777,654
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	21,563.50	25,234.85	12746.20	45,048,502	45,048,502
Total	34,873.90	36,336.05	21,385.00	82,225,114	82,225,114

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456144	0.092147	0.224959	0.119586	0.030381	0.008428	0.018751	0.036982	0.000674	0.000872	0.007004	0.001028	0.003044

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,696.3745	6,696.3745	0.3078	0.0637	6,722.5809
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,696.3745	6,696.3745	0.3078	0.0637	6,722.5809
NaturalGas Mitigated	0.2019	1.8014	1.2906	0.0110		0.1395	0.1395		0.1395	0.1395	0.0000	1,998.3505	1,998.3505	0.0383	0.0366	2,010.5121
NaturalGas Unmitigated	0.2019	1.8014	1.2906	0.0110		0.1395	0.1395		0.1395	0.1395	0.0000	1,998.3505	1,998.3505	0.0383	0.0366	2,010.5121

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					
Office Park	1.0192e+006	5.5000e-003	0.0500	0.0420	3.0000e-004		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	54.3884	54.3884	1.0400e-003	1.0000e-003	54.7194
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
Regional Shopping Center	1.30795e+006	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003	0.0000	69.7972	69.7972	1.3400e-003	1.2800e-003	70.2220
Apartments Low Rise	1.16536e+007	0.0628	0.5370	0.2285	3.4300e-003		0.0434	0.0434		0.0434	0.0434	0.0000	621.8818	621.8818	0.0119	0.0114	625.6664
Hotel	2.34669e+007	0.1265	1.1503	0.9663	6.9000e-003		0.0874	0.0874		0.0874	0.0874	0.0000	1,252.2832	1,252.2832	0.0240	0.0230	1,259.9043
Total		0.2019	1.8014	1.2906	0.0110		0.1395	0.1395		0.1395	0.1395	0.0000	1,998.3505	1,998.3505	0.0383	0.0366	2,010.5121

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	1.0192e+006	5.5000e-003	0.0500	0.0420	3.0000e-004		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	54.3884	54.3884	1.0400e-003	1.0000e-003	54.7194
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
Regional Shopping Center	1.30795e+006	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003	0.0000	69.7972	69.7972	1.3400e-003	1.2800e-003	70.2220
Apartments Low Rise	1.16536e+007	0.0628	0.5370	0.2285	3.4300e-003		0.0434	0.0434		0.0434	0.0434	0.0000	621.8818	621.8818	0.0119	0.0114	625.6664
Hotel	2.34669e+007	0.1265	1.1503	0.9663	6.9000e-003		0.0874	0.0874		0.0874	0.0874	0.0000	1,252.2832	1,252.2832	0.0240	0.0230	1,259.9043
Total		0.2019	1.8014	1.2906	0.0110		0.1395	0.1395		0.1395	0.1395	0.0000	1,998.3505	1,998.3505	0.0383	0.0366	2,010.5121

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	3.38719e+006	969.3022	0.0446	9.2200e-003	973.0956
Hotel	7.3623e+006	2,106.8465	0.0969	0.0200	2,115.0917
Office Park	3.2872e+006	940.6878	0.0432	8.9500e-003	944.3692
Parking Lot	985600	282.0461	0.0130	2.6800e-003	283.1499
Regional Shopping Center	8.37795e+006	2,397.4919	0.1102	0.0228	2,406.8745
Total		6,696.3745	0.3078	0.0637	6,722.5809

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	3.38719e+006	969.3022	0.0446	9.2200e-003	973.0956
Hotel	7.3623e+006	2,106.8465	0.0969	0.0200	2,115.0917
Office Park	3.2872e+006	940.6878	0.0432	8.9500e-003	944.3692
Parking Lot	985600	282.0461	0.0130	2.6800e-003	283.1499
Regional Shopping Center	8.37795e+006	2,397.4919	0.1102	0.0228	2,406.8745
Total		6,696.3745	0.3078	0.0637	6,722.5809

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	13.4999	0.1309	9.6373	4.4000e-004		0.0541	0.0541		0.0539	0.0539	0.0000	205.6900	205.6900	0.0258	3.5200e-003	207.3225
Unmitigated	13.4999	0.1309	9.6373	4.4000e-004		0.0541	0.0541		0.0539	0.0539	0.0000	205.6900	205.6900	0.0258	3.5200e-003	207.3225

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	2.0366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.0212					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0194	0.0000	1.0600e-003	0.0000		0.0134	0.0134		0.0133	0.0133	0.0000	192.1097	192.1097	3.6800e-003	3.5200e-003	193.2789
Landscaping	0.4227	0.1309	9.6362	4.4000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	13.5803	13.5803	0.0221	0.0000	14.0437
Total	13.4999	0.1309	9.6373	4.4000e-004		0.0541	0.0541		0.0539	0.0539	0.0000	205.6900	205.6900	0.0257	3.5200e-003	207.3225

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	2.0366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.0212					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0194	0.0000	1.0600e-003	0.0000		0.0134	0.0134		0.0133	0.0133	0.0000	192.1097	192.1097	3.6800e-003	3.5200e-003	193.2789
Landscaping	0.4227	0.1309	9.6362	4.4000e-004		0.0407	0.0407		0.0407	0.0407	0.0000	13.5803	13.5803	0.0221	0.0000	14.0437
Total	13.4999	0.1309	9.6373	4.4000e-004		0.0541	0.0541		0.0539	0.0539	0.0000	205.6900	205.6900	0.0257	3.5200e-003	207.3225

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	529.3294	4.2874	0.1052	651.9768
Unmitigated	529.3294	4.2882	0.1054	652.0431

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	44.384 / 0	179.4637	1.4539	0.0357	221.0685
Hotel	32.85 / 0	132.8268	1.0760	0.0264	163.6198
Office Park	19.1466 / 0	77.4178	0.6272	0.0154	95.3654
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	34.5303 / 0	139.6212	1.1311	0.0278	171.9893
Total		529.3294	4.2882	0.1054	652.0430

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	44.384 / 0	179.4637	1.4536	0.0357	221.0461
Hotel	32.85 / 0	132.8268	1.0759	0.0264	163.6032
Office Park	19.1466 / 0	77.4178	0.6271	0.0154	95.3557
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	34.5303 / 0	139.6212	1.1309	0.0278	171.9718
Total		529.3294	4.2874	0.1052	651.9768

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	301.8780	17.8405	0.0000	676.5281
Mitigated	301.8780	17.8405	0.0000	676.5281

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	368	74.7007	4.4147	0.0000	167.4090
Hotel	328.5	66.6825	3.9408	0.0000	149.4399
Office Park	260.4	52.8589	3.1239	0.0000	118.4601
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	530.25	107.6360	6.3611	0.0000	241.2191
Total		301.8780	17.8405	0.0000	676.5281

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	368	74.7007	4.4147	0.0000	167.4090
Hotel	328.5	66.6825	3.9408	0.0000	149.4399
Office Park	260.4	52.8589	3.1239	0.0000	118.4601
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	530.25	107.6360	6.3611	0.0000	241.2191
Total		301.8780	17.8405	0.0000	676.5281

9.0 Operational Offroad

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

CALEEMOD EMISSIONS MODEL OUTPUTS
PLANNING AREA 1B 2020 (LIGHT INDUSTRIAL)

Planning Area 1B Light Industrial Operations -solar (Cars Only)
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	620.03	1000sqft	14.23	620,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Consumer Products -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	620,030.00	620,027.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.47	1.00
tblVehicleEF	LDA	0.47	1.00
tblVehicleEF	LDA	0.47	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.9620e-003	0.00

tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleTrips	ST_TR	1.32	5.48
tblVehicleTrips	SU_TR	0.68	5.48
tblVehicleTrips	WD_TR	6.97	5.48
tblWater	IndoorWaterUseRate	143,381,937.50	10,390,791.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Energy	0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	2,387.9665	2,387.9665	0.1049	0.0362	2,401.4012
Mobile	0.8827	1.3036	14.9100	0.0582	5.6064	0.0330	5.6394	1.4883	0.0306	1.5190	0.0000	3,615.9486	3,615.9486	0.1484	0.0000	3,619.0640
Offroad	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	3.2965	28.6544	31.9510	0.3404	8.3600e-003	41.6911
Total	4.0051	2.9676	16.0195	0.0651	5.6064	0.1278	5.7342	1.4883	0.1235	1.6118	159.3641	6,147.0857	6,306.4498	9.8540	0.0446	6,527.2085

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	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Energy	0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	2,182.4981	2,182.4981	0.0931	0.0335	2,194.8286
Mobile	0.8858	1.3188	15.0770	0.0589	5.6787	0.0334	5.7121	1.5075	0.0310	1.5385	0.0000	3,661.7375	3,661.7375	0.1502	0.0000	3,664.8912
Offroad	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	2.6372	22.1279	24.7651	0.2722	6.6800e-003	32.5530
Total	4.0058	2.9624	16.1693	0.0657	5.6787	0.1266	5.8053	1.5075	0.1222	1.6298	158.7048	5,980.8797	6,139.5844	9.7759	0.0402	6,357.3251

	ROG	NOx	CO	SO2	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	1.49	24.93	1.07	1.06	-1.29	19.78	-0.82	-1.29	18.94	0.26	0.41	4.57	4.46	1.17	9.96	4.37

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	0.8827	1.3036	14.9100	0.0582	5.6064	0.0330	5.6394	1.4883	0.0306	1.5190	0.0000	3,615.9486	3,615.9486	0.1484	0.0000	3,619.0640
Mitigated	0.8858	1.3188	15.0770	0.0589	5.6787	0.0334	5.7121	1.5075	0.0310	1.5385	0.0000	3,661.7375	3,661.7375	0.1502	0.0000	3,664.8912

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	3,397.76	3,397.76	3397.76	15,046,244	15,240,252
Total	3,397.76	3,397.76	3,397.76	15,046,244	15,240,252

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Unmitigated	0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	1,011.8005	1,011.8005	0.0194	0.0186	1,017.9582
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,192.9486	1,192.9486	0.0741	0.0153	1,199.2568
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,376.1659	1,376.1659	0.0855	0.0177	1,383.4430
NaturalGas Mitigated	0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	989.5495	989.5495	0.0190	0.0181	995.5717

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					
General Light Industry	1.89604e+007	0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	1,011.8005	1,011.8005	0.0194	0.0186	1,017.9582
Total		0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	1,011.8005	1,011.8005	0.0194	0.0186	1,017.9582

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					
General Light Industry	1.85435e+007	0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	989.5495	989.5495	0.0190	0.0181	995.5717
Total		0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	989.5495	989.5495	0.0190	0.0181	995.5717

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	6.49788e+006	1,376.1659	0.0855	0.0177	1,383.4430
Total		1,376.1659	0.0855	0.0177	1,383.4430

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	5.63278e+006	1,192.9486	0.0741	0.0153	1,199.2568
Total		1,192.9486	0.0741	0.0153	1,199.2568

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Mitigated	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Total	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Total	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	31.9510	0.3404	8.3600e-003	41.6911
Mitigated	24.7651	0.2722	6.6800e-003	32.5530

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.3908 / 0	31.9510	0.3404	8.3600e-003	41.6911
Total		31.9510	0.3404	8.3600e-003	41.6911

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	8.31263 / 0	24.7651	0.2722	6.6800e-003	32.5530
Total		24.7651	0.2722	6.6800e-003	32.5530

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	156.0676	9.2233	0.0000	349.7575
Unmitigated	156.0676	9.2233	0.0000	349.7575

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	3	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785
Total	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785

10.0 Vegetation

**Planning Area 1B Light Industrial Operations -solar (Trucks Only)
San Bernardino-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	620.03	1000sqft	14.23	620,027.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Consumer Products -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	620,030.00	620,027.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.38
tblVehicleEF	LHD1	0.06	0.38
tblVehicleEF	LHD1	0.06	0.38
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.9620e-003	0.00

tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleTrips	CC_TL	8.40	44.00
tblVehicleTrips	CNW_TL	6.90	44.00
tblVehicleTrips	CW_TL	16.60	44.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	143,381,937.50	10,390,791.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Energy	0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	2,387.9665	2,387.9665	0.1049	0.0362	2,401.4012
Mobile	2.8012	41.2624	29.1124	0.1679	5.7850	0.7691	6.5540	1.6057	0.7075	2.3132	0.0000	14,238.9063	14,238.9063	0.1295	0.0000	14,241.6253
Offroad	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	3.2965	28.6544	31.9510	0.3404	8.3600e-003	41.6911
Total	5.9236	42.9264	30.2219	0.1747	5.7850	0.8638	6.6488	1.6057	0.8004	2.4061	159.3641	16,770.0434	16,929.4075	9.8351	0.0446	17,149.7698

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	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Energy	0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	2,182.4981	2,182.4981	0.0931	0.0335	2,194.8286
Mobile	2.8012	41.2624	29.1124	0.1679	5.7850	0.7691	6.5540	1.6057	0.7075	2.3132	0.0000	14,238.9063	14,238.9063	0.1295	0.0000	14,241.6253
Offroad	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785
Waste						0.0000	0.0000		0.0000	0.0000	156.0676	0.0000	156.0676	9.2233	0.0000	349.7575
Water						0.0000	0.0000		0.0000	0.0000	2.6372	22.1279	24.7651	0.2722	6.6800e-003	32.5530
Total	5.9213	42.9059	30.2048	0.1746	5.7850	0.8623	6.6472	1.6057	0.7988	2.4045	158.7048	16,558.0485	16,716.7533	9.7552	0.0402	16,934.0591

	ROG	NOx	CO	SO2	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	1.06	1.76	1.12	0.82	0.00	2.97	0.39	0.00	2.96	0.99	0.41	1.95	1.93	1.19	9.96	1.93

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.8012	41.2624	29.1124	0.1679	5.7850	0.7691	6.5540	1.6057	0.7075	2.3132	0.0000	14,238.9063	14,238.9063	0.1295	0.0000	14,241.6253
Mitigated	2.8012	41.2624	29.1124	0.1679	5.7850	0.7691	6.5540	1.6057	0.7075	2.3132	0.0000	14,238.9063	14,238.9063	0.1295	0.0000	14,241.6253

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	923.84	923.84	923.84	13,798,556	13,798,556
Total	923.84	923.84	923.84	13,798,556	13,798,556

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
General Light Industry	44.00	44.00	44.00	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.380000	0.000000	0.180000	0.440000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Unmitigated	0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	1,011.8005	1,011.8005	0.0194	0.0186	1,017.9582
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,192.9486	1,192.9486	0.0741	0.0153	1,199.2568
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,376.1659	1,376.1659	0.0855	0.0177	1,383.4430
NaturalGas Mitigated	0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	989.5495	989.5495	0.0190	0.0181	995.5717

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					
General Light Industry	1.89604e+007	0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	1,011.8005	1,011.8005	0.0194	0.0186	1,017.9582
Total		0.1022	0.9294	0.7807	5.5800e-003		0.0706	0.0706		0.0706	0.0706	0.0000	1,011.8005	1,011.8005	0.0194	0.0186	1,017.9582

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					
General Light Industry	1.85435e+007	0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	989.5495	989.5495	0.0190	0.0181	995.5717
Total		0.1000	0.9090	0.7636	5.4500e-003		0.0691	0.0691		0.0691	0.0691	0.0000	989.5495	989.5495	0.0190	0.0181	995.5717

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	6.49788e+006	1,376.1659	0.0855	0.0177	1,383.4430
Total		1,376.1659	0.0855	0.0177	1,383.4430

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	5.63278e+006	1,192.9486	0.0741	0.0153	1,199.2568
Total		1,192.9486	0.0741	0.0153	1,199.2568

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Mitigated	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Total	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163

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	0.7185					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163
Total	2.9597	7.0000e-005	7.9600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0154	0.0154	4.0000e-005	0.0000	0.0163

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	31.9510	0.3404	8.3600e-003	41.6911
Mitigated	24.7651	0.2722	6.6800e-003	32.5530

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.3908 / 0	31.9510	0.3404	8.3600e-003	41.6911
Total		31.9510	0.3404	8.3600e-003	41.6911

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	8.31263 / 0	24.7651	0.2722	6.6800e-003	32.5530
Total		24.7651	0.2722	6.6800e-003	32.5530

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	156.0676	9.2233	0.0000	349.7575
Unmitigated	156.0676	9.2233	0.0000	349.7575

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	768.84	156.0676	9.2233	0.0000	349.7575
Total		156.0676	9.2233	0.0000	349.7575

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	3	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785
Total	0.0604	0.7345	0.3208	1.3000e-003		0.0241	0.0241		0.0222	0.0222	0.0000	114.5008	114.5008	0.0370	0.0000	115.2785

10.0 Vegetation

CALEEMOD EMISSIONS MODEL OUTPUTS
PLANNING AREA 1B 2020 (HIGH-CUBE WAREHOUSE)

Planning Area 1B High-Cube Warehouse Operations-solar (Cars Only)
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	2,386.97	1000sqft	54.80	2,386,973.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Consumer Products -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LandUseSquareFeet	2,386,970.00	2,386,973.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	9.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.47	1.00
tblVehicleEF	LDA	0.47	1.00
tblVehicleEF	LDA	0.47	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.9620e-003	0.00

tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleTrips	ST_TR	2.59	1.34
tblVehicleTrips	SU_TR	2.59	1.34
tblVehicleTrips	WD_TR	2.59	1.34
tblWater	IndoorWaterUseRate	551,986,812.50	40,002,350.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Energy	0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	1,704.1524	1,704.1524	0.0961	0.0232	1,713.3458
Mobile	0.8239	1.1914	13.6434	0.0531	5.1078	0.0302	5.1380	1.3560	0.0280	1.3840	0.0000	3,296.3117	3,296.3117	0.1354	0.0000	3,299.1543
Offroad	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	12.6909	110.3135	123.0044	1.3103	0.0322	160.5019
Total	12.4223	3.6046	14.8124	0.0582	5.1078	0.1185	5.2263	1.3560	0.1105	1.4665	468.1519	5,454.3393	5,922.4912	28.5700	0.0554	6,539.6175

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	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Energy	0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	1,514.6670	1,514.6670	0.0848	0.0207	1,522.8494
Mobile	0.8266	1.2053	13.7955	0.0537	5.1736	0.0306	5.2042	1.3735	0.0283	1.4018	0.0000	3,338.0281	3,338.0281	0.1370	0.0000	3,340.9057
Offroad	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	10.1527	85.1878	95.3405	1.0481	0.0257	125.3223
Total	12.4239	3.6081	14.9559	0.0588	5.1736	0.1181	5.2917	1.3735	0.1101	1.4835	465.6137	5,281.4446	5,747.0583	28.2981	0.0464	6,355.6929

	ROG	NOx	CO	SO2	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	1.45	61.03	5.53	5.69	-1.29	61.35	0.13	-1.29	60.58	3.37	0.54	9.47	8.76	1.34	16.22	8.10

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

	ROG	NOx	CO	SO2	Fugitive 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					
Unmitigated	0.8239	1.1914	13.6434	0.0531	5.1078	0.0302	5.1380	1.3560	0.0280	1.3840	0.0000	3,296.3117	3,296.3117	0.1354	0.0000	3,299.1543
Mitigated	0.8266	1.2053	13.7955	0.0537	5.1736	0.0306	5.2042	1.3735	0.0283	1.4018	0.0000	3,338.0281	3,338.0281	0.1370	0.0000	3,340.9057

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	3,198.54	3,198.54	3198.54	13,708,036	13,884,790
Total	3,198.54	3,198.54	3,198.54	13,708,036	13,884,790

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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Unmitigated	0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.0066	228.0066	4.3700e-003	4.1800e-003	229.3942
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,297.8697	1,297.8697	0.0806	0.0167	1,304.7327
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,476.1459	1,476.1459	0.0917	0.0190	1,483.9517
NaturalGas Mitigated	0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	216.7973	216.7973	4.1600e-003	3.9700e-003	218.1167

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 Rail	4.27268e+006	0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.0066	228.0066	4.3700e-003	4.1800e-003	229.3942
Total		0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.0066	228.0066	4.3700e-003	4.1800e-003	229.3942

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 Rail	4.06263e+006	0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	216.7973	216.7973	4.1600e-003	3.9700e-003	218.1167
Total		0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	216.7973	216.7973	4.1600e-003	3.9700e-003	218.1167

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.96996e+006	1,476.1459	0.0917	0.0190	1,483.9517
Total		1,476.1459	0.0917	0.0190	1,483.9517

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.12819e+006	1,297.8697	0.0806	0.0167	1,304.7327
Total		1,297.8697	0.0806	0.0167	1,304.7327

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Mitigated	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8800e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Total	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8800e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Total	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	123.0044	1.3103	0.0322	160.5019
Mitigated	95.3405	1.0481	0.0257	125.3223

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	40.0024 / 0	123.0044	1.3103	0.0322	160.5019
Total		123.0044	1.3103	0.0322	160.5019

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	32.0019 / 0	95.3405	1.0481	0.0257	125.3223
Total		95.3405	1.0481	0.0257	125.3223

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	455.4610	26.9170	0.0000	1,020.7174
Unmitigated	455.4610	26.9170	0.0000	1,020.7174

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Pail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	9	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355
Total	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355

10.0 Vegetation

Planning Area 1B High-Cube Warehouse Operations-solar (Trucks Only)
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	2,386.97	1000sqft	54.80	2,386,973.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - based on the Proposed Project Development Summary Table 2-1 in the TIA

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Vehicle Emission Factors - fleet mix based on the TIA by linscott & Greenspan Table 2-2 Project Generation Rates Summary for Planning Area (PA) 1

Consumer Products -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment. Based on Table 1-3 Industrial land uses have a water demand of 2,000 gpd/ac

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (July 2013)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LandUseSquareFeet	2,386,970.00	2,386,973.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.39

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	9.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleEF	HHD	0.04	0.59
tblVehicleEF	HHD	0.04	0.59
tblVehicleEF	HHD	0.04	0.59
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.18
tblVehicleEF	LHD1	0.06	0.18
tblVehicleEF	LHD1	0.06	0.18
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	LHD2	9.0790e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MCY	5.0120e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.9620e-003	0.00

tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MH	2.9620e-003	0.00
tblVehicleEF	MHD	0.02	0.23
tblVehicleEF	MHD	0.02	0.23
tblVehicleEF	MHD	0.02	0.23
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	OBUS	1.1080e-003	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	SBUS	6.7200e-004	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleEF	UBUS	1.3370e-003	0.00
tblVehicleTrips	CC_TL	8.40	44.00
tblVehicleTrips	CNW_TL	6.90	44.00
tblVehicleTrips	CW_TL	16.60	44.00
tblVehicleTrips	ST_TR	2.59	0.34
tblVehicleTrips	SU_TR	2.59	0.34
tblVehicleTrips	WD_TR	2.59	0.34
tblWater	IndoorWaterUseRate	551,986,812.50	40,002,350.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Energy	0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	1,704.1524	1,704.1524	0.0961	0.0232	1,713.3458
Mobile	2.8999	43.2549	29.9953	0.1715	5.2010	0.8622	6.0632	1.4522	0.7933	2.2454	0.0000	14,603.2518	14,603.2518	0.1114	0.0000	14,605.5908
Offroad	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	12.6909	110.3135	123.0044	1.3103	0.0322	160.5019
Total	14.4983	45.6681	31.1643	0.1767	5.2010	0.9505	6.1515	1.4522	0.8758	2.3280	468.1519	16,761.2795	17,229.4314	28.5460	0.0554	17,846.0540

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	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Energy	0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	1,514.6670	1,514.6670	0.0848	0.0207	1,522.8494
Mobile	2.8999	43.2549	29.9953	0.1715	5.2010	0.8622	6.0632	1.4522	0.7933	2.2454	0.0000	14,603.2518	14,603.2518	0.1114	0.0000	14,605.5908
Offroad	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355
Waste						0.0000	0.0000		0.0000	0.0000	455.4610	0.0000	455.4610	26.9170	0.0000	1,020.7174
Water						0.0000	0.0000		0.0000	0.0000	10.1527	85.1878	95.3405	1.0481	0.0257	125.3223
Total	14.4972	45.6578	31.1557	0.1766	5.2010	0.9498	6.1507	1.4522	0.8750	2.3272	465.6137	16,546.6683	17,012.2820	28.2725	0.0464	17,620.3780

	ROG	NOx	CO	SO2	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	1.26	4.85	3.12	2.25	0.00	7.69	1.19	0.00	7.68	2.89	0.54	3.33	3.25	1.35	16.22	3.20

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.8999	43.2549	29.9953	0.1715	5.2010	0.8622	6.0632	1.4522	0.7933	2.2454	0.0000	14,603.2518	14,603.2518	0.1114	0.0000	14,605.5908
Mitigated	2.8999	43.2549	29.9953	0.1715	5.2010	0.8622	6.0632	1.4522	0.7933	2.2454	0.0000	14,603.2518	14,603.2518	0.1114	0.0000	14,605.5908

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	811.57	811.57	811.57	12,121,616	12,121,616
Total	811.57	811.57	811.57	12,121,616	12,121,616

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
Unrefrigerated Warehouse-No	44.00	44.00	44.00	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.180000	0.000000	0.230000	0.590000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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					
NaturalGas Unmitigated	0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.0066	228.0066	4.3700e-003	4.1800e-003	229.3942
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,297.8697	1,297.8697	0.0806	0.0167	1,304.7327
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,476.1459	1,476.1459	0.0917	0.0190	1,483.9517
NaturalGas Mitigated	0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	216.7973	216.7973	4.1600e-003	3.9700e-003	218.1167

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 Rail	4.27268e+006	0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.0066	228.0066	4.3700e-003	4.1800e-003	229.3942
Total		0.0230	0.2095	0.1759	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.0066	228.0066	4.3700e-003	4.1800e-003	229.3942

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 Rail	4.06263e+006	0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	216.7973	216.7973	4.1600e-003	3.9700e-003	218.1167
Total		0.0219	0.1992	0.1673	1.1900e-003		0.0151	0.0151		0.0151	0.0151	0.0000	216.7973	216.7973	4.1600e-003	3.9700e-003	218.1167

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.96996e+006	1,476.1459	0.0917	0.0190	1,483.9517
Total		1,476.1459	0.0917	0.0190	1,483.9517

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.12819e+006	1,297.8697	0.0806	0.0167	1,304.7327
Total		1,297.8697	0.0806	0.0167	1,304.7327

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Mitigated	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8800e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Total	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626

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	2.7659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.6253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8800e-003	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626
Total	11.3941	2.8000e-004	0.0307	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0592	0.0592	1.6000e-004	0.0000	0.0626

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	123.0044	1.3103	0.0322	160.5019
Mitigated	95.3405	1.0481	0.0257	125.3223

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	40.0024 / 0	123.0044	1.3103	0.0322	160.5019
Total		123.0044	1.3103	0.0322	160.5019

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	32.0019 / 0	95.3405	1.0481	0.0257	125.3223
Total		95.3405	1.0481	0.0257	125.3223

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	455.4610	26.9170	0.0000	1,020.7174
Unmitigated	455.4610	26.9170	0.0000	1,020.7174

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Pail	2243.75	455.4610	26.9170	0.0000	1,020.7174
Total		455.4610	26.9170	0.0000	1,020.7174

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	9	4.00	260	200	0.39	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355
Total	0.1813	2.2034	0.9625	3.9100e-003		0.0723	0.0723		0.0665	0.0665	0.0000	343.5025	343.5025	0.1111	0.0000	345.8355

10.0 Vegetation

CALEEMOD EMISSIONS MODEL OUTPUTS

PLANNING AREA 1B 2020 CONSOLIDATED
(LIGHT INDUSTRIAL + HIGH-CUBE WAREHOUSE)

PHASE 1B ANNUAL 2020 (WITH MITIGATION AND SOLAR)

Light Industrial Peak Operation Emissions (with Solar Mitigation 2020)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2e
Area Source	0.02	4.00E-05	--	0.02
Energy Source	2,182.50	0.09	0.03	2,194.83
Mobile (Passenger Cars)	3,661.73	0.15	--	3,664.89
Mobile (Trucks)	14,238.91	0.13	--	14,241.63
Onsite Equipment	114.50	0.04	--	115.28
Waste	156.07	9.22	--	349.76
Water Usage	24.77	0.27	0.01	32.55
Total	20,378.50	9.90	0.04	20,598.96

High-Cube Warehouse Peak Operation Emissions (with Solar Mitigation 2020)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2e
Area Source	0.06	1.60E-04	--	0.06
Energy Source	1,514.67	8.00E-02	2.00E-02	1,522.85
Mobile (Passenger Cars)	3,338.03	0.14	--	3,340.91
Mobile (Trucks)	14,603.27	0.11	--	14,605.61
Onsite Equipment	343.50	0.11	--	345.84
Waste	455.46	26.92	--	1,020.72
Water Usage	95.34	1.05	0.03	125.32
Total	20,350.33	28.41	0.05	20,961.31

Planning Area 1 Peak Operation Emissions (with Solar Mitigation 2020)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2e
Area Source	0.08	2.00E-04	--	0.09
Energy Source	3,697.17	0.17	0.05	3717.68
Mobile (Passenger Cars)	6999.76	0.29	--	7005.80
Mobile (Trucks)	28842.18	0.24	--	28847.24
Onsite Equipment	458.00	0.15	--	461.12
Waste	611.53	36.14	--	1370.48
Water Usage	120.11	1.32	0.04	157.87
Total	40728.83	38.31	0.09	41560.27

CALEEMOD EMISSIONS MODEL OUTPUTS

PLANNING AREAS 2-4 2020

**Planning Area 2, 3, 4 Operations Only
San Bernardino-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	280.00	1000sqft	6.43	280,000.00	0
Parking Lot	2,800.00	Space	25.20	1,120,000.00	0
Hotel	600.00	Room	20.00	345,000.00	0
Apartments Low Rise	800.00	Dwelling Unit	50.00	800,000.00	2288
Regional Shopping Center	505.00	1000sqft	11.59	505,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - assumed 2 spaces per dwelling unit/hotel room

Construction Phase - construction emissions modeled seperately

Off-road Equipment - construction emissions modeled seperately

Vehicle Trips - TR adjusted to be consistant with the Daily TR within the TIA

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - no woodstoves. all natural gas fireplaces

Area Coating -

Energy Use - T-24 Electricity/Nat Gas Energy were adjusted by 21.8% and 16.8% respectively (non res) and 23.3% and 3.8% respectively (multi-fam) , to reflect 2013 Title 24 requirements. Impact Analysis CA's 2013 Building Energy Efficiency Stds

Water And Wastewater - Based upon Table 1-3 "Meredith International Centre Water Demand" in the WSA - Meredith International Centre Specific Plan Amendment.

Solid Waste -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	1.00
tblEnergyUse	T24E	636.58	488.26
tblEnergyUse	T24E	7.91	6.19
tblEnergyUse	T24E	3.75	2.93
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24NG	11,224.20	10,797.68
tblEnergyUse	T24NG	58.04	48.29
tblEnergyUse	T24NG	3.07	2.55
tblEnergyUse	T24NG	2.02	1.68

tblFireplaces	NumberGas	680.00	800.00
tblFireplaces	NumberNoFireplace	80.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblLandUse	LandUseSquareFeet	871,200.00	345,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	11.42	11.03
tblVehicleTrips	WD_TR	42.94	42.70
tblWater	IndoorWaterUseRate	52,123,220.50	44,384,000.00
tblWater	IndoorWaterUseRate	15,220,062.00	32,850,000.00
tblWater	IndoorWaterUseRate	49,765,449.44	19,146,550.00
tblWater	IndoorWaterUseRate	37,406,623.35	34,530,349.00
tblWater	OutdoorWaterUseRate	32,860,291.18	0.00
tblWater	OutdoorWaterUseRate	1,691,118.00	0.00
tblWater	OutdoorWaterUseRate	30,501,404.49	0.00
tblWater	OutdoorWaterUseRate	22,926,640.12	0.00
tblWoodstoves	NumberCatalytic	40.00	0.00
tblWoodstoves	NumberNoncatalytic	40.00	0.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.1655	1.4730	1.0342	9.0300e-003		0.1143	0.1143		0.1143	0.1143	0.0000	6,024.4423	6,024.4423	0.3039	0.0864	6,057.6059
Mobile	15.9916	45.9723	173.0783	0.4609	31.1497	0.6857	31.8354	8.3320	0.6321	8.9641	0.0000	32,515.4666	32,515.4666	1.1166	0.0000	32,538.9161
Waste						0.0000	0.0000		0.0000	0.0000	301.8780	0.0000	301.8780	17.8405	0.0000	676.5281
Water						0.0000	0.0000		0.0000	0.0000	41.5320	361.0099	402.5419	4.2882	0.1054	525.2555
Area	12.9589	0.0962	8.3324	4.4000e-004		0.0591	0.0591		0.0590	0.0590	0.0000	205.6900	205.6900	0.0171	3.5200e-003	207.1410
Total	29.1160	47.5416	182.4448	0.4704	31.1497	0.8592	32.0088	8.3320	0.8054	9.1374	343.4100	39,106.6087	39,450.0187	23.5662	0.1953	40,005.4465

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					
Energy	0.1582	1.4084	0.9882	8.6300e-003		0.1093	0.1093		0.1093	0.1093	0.0000	5,893.9127	5,893.9127	0.2988	0.0843	5,926.3289
Mobile	14.8065	35.8171	143.6421	0.3396	22.6354	0.5123	23.1477	6.0546	0.4724	6.5269	0.0000	23,947.1766	23,947.1766	0.8448	0.0000	23,964.9165
Waste						0.0000	0.0000		0.0000	0.0000	301.8780	0.0000	301.8780	17.8405	0.0000	676.5281
Water						0.0000	0.0000		0.0000	0.0000	33.2256	278.7839	312.0095	3.4299	0.0842	410.1273
Area	12.9589	0.0962	8.3324	4.4000e-004		0.0591	0.0591		0.0590	0.0590	0.0000	205.6900	205.6900	0.0171	3.5200e-003	207.1410
Total	27.9236	37.3217	152.9627	0.3486	22.6354	0.6808	23.3162	6.0546	0.6407	6.6952	335.1036	30,325.5631	30,660.6667	22.4311	0.1720	31,185.0417

	ROG	NOx	CO	SO2	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	4.10	21.50	16.16	25.89	27.33	20.76	27.16	27.33	20.46	26.73	2.42	22.45	22.28	4.82	11.92	22.05

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/1/2015	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

	ROG	NOx	CO	SO2	Fugitive 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	14.8065	35.8171	143.6421	0.3396	22.6354	0.5123	23.1477	6.0546	0.4724	6.5269	0.0000	23,947.17 66	23,947.17 66	0.8448	0.0000	23,964.91 65
Unmitigated	15.9916	45.9723	173.0783	0.4609	31.1497	0.6857	31.8354	8.3320	0.6321	8.9641	0.0000	32,515.46 66	32,515.46 66	1.1166	0.0000	32,538.91 61

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	5,320.00	5,728.00	4856.00	18,151,911	13,190,369
Hotel	4,902.00	4,914.00	3570.00	11,247,047	8,172,842
Office Park	3,088.40	459.20	212.80	7,777,654	5,651,753
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	21,563.50	25,234.85	12746.20	45,048,502	32,735,196
Total	34,873.90	36,336.05	21,385.00	82,225,114	59,750,160

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Office Park	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

5.1 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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,327.9963	4,327.9963	0.2688	0.0556	4,350.8826
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,386.8568	4,386.8568	0.2725	0.0564	4,410.0543
Natural Gas Mitigated	0.1582	1.4084	0.9882	8.6300e-003		0.1093	0.1093		0.1093	0.1093	0.0000	1,565.9164	1,565.9164	0.0300	0.0287	1,575.4463
Natural Gas Unmitigated	0.1655	1.4730	1.0342	9.0300e-003		0.1143	0.1143		0.1143	0.1143	0.0000	1,637.5855	1,637.5855	0.0314	0.0300	1,647.5516

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					
Office Park	714000	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.1018	38.1018	7.3000e-004	7.0000e-004	38.3336
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
Regional Shopping Center	999900	5.3900e-003	0.0490	0.0412	2.9000e-004		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	53.3585	53.3585	1.0200e-003	9.8000e-004	53.6832
Apartments Low Rise	1.06365e+007	0.0574	0.4901	0.2086	3.1300e-003		0.0396	0.0396		0.0396	0.0396	0.0000	567.6065	567.6065	0.0109	0.0104	571.0609
Hotel	1.83368e+007	0.0989	0.8989	0.7550	5.3900e-003		0.0683	0.0683		0.0683	0.0683	0.0000	978.5188	978.5188	0.0188	0.0179	984.4739
Total		0.1655	1.4730	1.0342	9.0200e-003		0.1143	0.1143		0.1143	0.1143	0.0000	1,637.5855	1,637.5855	0.0314	0.0300	1,647.5516

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	678300	3.6600e-003	0.0333	0.0279	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	36.1967	36.1967	6.9000e-004	6.6000e-004	36.4170
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
Regional Shopping Center	957480	5.1600e-003	0.0469	0.0394	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	51.0948	51.0948	9.8000e-004	9.4000e-004	51.4057
Apartments Low Rise	1.02046e+007	0.0550	0.4702	0.2001	3.0000e-003		0.0380	0.0380		0.0380	0.0380	0.0000	544.5583	544.5583	0.0104	9.9800e-003	547.8724
Hotel	1.75037e+007	0.0944	0.8580	0.7207	5.1500e-003		0.0652	0.0652		0.0652	0.0652	0.0000	934.0666	934.0666	0.0179	0.0171	939.7512
Total		0.1582	1.4084	0.9882	8.6300e-003		0.1093	0.1093		0.1093	0.1093	0.0000	1,565.9164	1,565.9164	0.0300	0.0287	1,575.4463

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	3.1436e+006	665.7730	0.0414	8.5600e-003	669.2936
Hotel	6.39975e+006	1,355.3827	0.0842	0.0174	1,362.5499
Office Park	2.8924e+006	612.5722	0.0381	7.8700e-003	615.8114
Parking Lot	985600	208.7371	0.0130	2.6800e-003	209.8409
Regional Shopping Center	7.2922e+006	1,544.3918	0.0959	0.0199	1,552.5585
Total		4,386.8568	0.2725	0.0564	4,410.0543

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	3.12407e+006	661.6368	0.0411	8.5000e-003	665.1355
Hotel	6.29297e+006	1,332.7686	0.0828	0.0171	1,339.8162
Office Park	2.85138e+006	603.8847	0.0375	7.7600e-003	607.0780
Parking Lot	985600	208.7371	0.0130	2.6800e-003	209.8409
Regional Shopping Center	7.18161e+006	1,520.9692	0.0945	0.0196	1,529.0121
Total		4,327.9963	0.2688	0.0556	4,350.8826

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.9589	0.0962	8.3324	4.4000e-004		0.0591	0.0591		0.0590	0.0590	0.0000	205.6900	205.6900	0.0171	3.5200e-003	207.1410
Unmitigated	12.9589	0.0962	8.3324	4.4000e-004		0.0591	0.0591		0.0590	0.0590	0.0000	205.6900	205.6900	0.0171	3.5200e-003	207.1410

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	1.6612					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.0212					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0194	0.0000	1.0600e-003	0.0000		0.0134	0.0134		0.0133	0.0133	0.0000	192.1097	192.1097	3.6800e-003	3.5200e-003	193.2789
Landscaping	0.2571	0.0962	8.3313	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5803	13.5803	0.0134	0.0000	13.8621
Total	12.9589	0.0962	8.3324	4.4000e-004		0.0591	0.0591		0.0590	0.0590	0.0000	205.6900	205.6900	0.0171	3.5200e-003	207.1410

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	1.6612					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.0212					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0194	0.0000	1.0600e-003	0.0000		0.0134	0.0134		0.0133	0.0133	0.0000	192.1097	192.1097	3.6800e-003	3.5200e-003	193.2789
Landscaping	0.2571	0.0962	8.3313	4.4000e-004		0.0457	0.0457		0.0457	0.0457	0.0000	13.5803	13.5803	0.0134	0.0000	13.8621
Total	12.9589	0.0962	8.3324	4.4000e-004		0.0591	0.0591		0.0590	0.0590	0.0000	205.6900	205.6900	0.0171	3.5200e-003	207.1410

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	312.0095	3.4299	0.0842	410.1273
Unmitigated	402.5419	4.2882	0.1054	525.2555

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	44.384 / 0	136.4777	1.4539	0.0357	178.0825
Hotel	32.85 / 0	101.0115	1.0760	0.0264	131.8045
Office Park	19.1466 / 0	58.8743	0.6272	0.0154	76.8219
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	34.5303 / 0	106.1784	1.1311	0.0278	138.5466
Total		402.5418	4.2882	0.1054	525.2554

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	35.5072 / 0	105.7836	1.1629	0.0285	139.0495
Hotel	26.28 / 0	78.2938	0.8607	0.0211	102.9149
Office Park	15.3172 / 0	45.6334	0.5016	0.0123	59.9837
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	27.6243 / 0	82.2987	0.9047	0.0222	108.1792
Total		312.0095	3.4299	0.0842	410.1273

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	301.8780	17.8405	0.0000	676.5281
Unmitigated	301.8780	17.8405	0.0000	676.5281

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	368	74.7007	4.4147	0.0000	167.4090
Hotel	328.5	66.6825	3.9408	0.0000	149.4399
Office Park	260.4	52.8589	3.1239	0.0000	118.4601
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	530.25	107.6360	6.3611	0.0000	241.2191
Total		301.8780	17.8405	0.0000	676.5281

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	368	74.7007	4.4147	0.0000	167.4090
Hotel	328.5	66.6825	3.9408	0.0000	149.4399
Office Park	260.4	52.8589	3.1239	0.0000	118.4601
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	530.25	107.6360	6.3611	0.0000	241.2191
Total		301.8780	17.8405	0.0000	676.5281

9.0 Operational Offroad

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