Appendix B

Greenhouse Gas Study

City of Long Beach

Shoreline Gateway East Tower Project

Greenhouse Gas Study

August 2016

rincon

Environmental Scientists Planners Engineers

GREENHOUSE GAS STUDY

SHORELINE GATEWAY EAST TOWER PROJECT

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August 2016

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Shoreline Gateway East Tower Project Greenhouse Gas Study

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SHORELINE GATEWAY EAST TOWER PROJECT
CITY OF LONG BEACH
GREENHOUSE GAS STUDY

This report is an analysis of the potential greenhouse gas (GHG) emissions impacts of the proposed Shoreline Gateway East Tower Project located in the City of Long Beach. The report has been prepared by Rincon Consultants, Inc. under contract to City of Long Beach for use in support of the environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the proposed project's GHG emissions and the associated impacts to regional climate change.

PROJECT DESCRIPTION

The Shoreline Gateway East Tower project (Proposed Project) is a revision to a previously approved 221-unit residential tower at the same location, 777 East Ocean Boulevard in the City of Long Beach, California. The Proposed Project was originally reviewed as part of the Shoreline Gateway Environmental Impact Report (2006 Shoreline EIR), which was certified in 2006. The 2006 EIR evaluated three multi-family residential buildings, ranging from 10 to 22 stories tall, and totaling 358 dwelling units. In 2007, a Supplemental Shoreline Gateway EIR was certified, changing one of the buildings to be 35 stories tall, with the total unit count remaining 358 units. That same year, the Planning Commission approved the Shoreline Gateway Master Plan, along with the Site Plan Review for the 35-story east tower, with 221 units and 6,367 square feet (SF) of retail/restaurant space, in accordance with the Shoreline Gateway Supplemental EIR (Approved Project).

In May 2013, the Long Beach Planning Commission approved the 17-story West Tower, with 224 units and 9,182 SF of retail/restaurant. The West Tower is now constructed, with 223 units and 6,502 SF of retail/restaurant space. The constructed West Tower plus the East Tower as approved in the 2007 Shoreline Gateway SEIR brings the overall development total for the Shoreline Gateway Project to 444 units and 15,449 SF of retail/restaurant.

The Proposed Project would add 94 units to the 221-unit Approved Project, bringing the unit count of the East Tower to 315 units. The Proposed Project would also add 344 square feet to the approved 6,367 SF of retail/restaurant, with the new total as 6,711 SF. Upon completion of the Proposed Project, the Shoreline Gateway Project would consist of two residential towers with a total of 538 units and 13,213 SF of retail/restaurant. Because it is already constructed, the West Tower is part of the existing conditions. Nevertheless, the West Tower has also been included as part of the cumulative impacts analysis for the Proposed Project.

Similar to the Approved Project, construction of the Proposed Project would occur in a single phase over an estimated 30 month construction schedule. Project grading and excavation is estimated to occur over a four to five month time period and would include the use of pile drivers, dump trucks for soil removal, and semi-trucks for equipment delivery. Pile driving during grading and excavation would be located around the perimeter of the building footprint. Building erection would occur over approximately 22 months and would include the use of a heavy crane for lifting materials and formwork during building erection, cement trucks for

foundations and deck erection, and semi-trucks for equipment and window delivery. Building completion would occur over the last four months of the 30-month construction phase and would include the use of semi-trucks for equipment drywall delivery, and finish materials.

The Proposed Project is part of the first LEED-ND Gold campus plan and would be developed as a healthy living community. As such, the Proposed Project would be designed to include delivery of fresh air into every unit (ECODUCT), low flow water plumbing fixtures, energy efficient stainless steel appliances, large operable and energy efficient windows, resident and retail patron/guest Electric Vehicle Charging stations, recycled content building materials, low to non-VOC paint and adhesive materials, and bicycle parking. Additionally, LED lighting would be utilized throughout the project site and an estimated minimum of 80 percent of the construction material waste would be recycled. The tower would have a fully integrated cistern, shared with the adjacent tower (The Current) that collects all rainwater on site and re-uses it for the project's drip irrigation that waters the buildings low water-use and native drought tolerant plants. The Proposed Project would be a transit oriented development with a proposed active bus line directly adjacent to a large public/private plaza, and located within a ten-minute walk to the Metro Blue Line as well as walking/biking paths.

GREENHOUSE GAS EMISSIONS/ CLIMATE CHANGE BACKGROUND

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC, 2013), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC, 2013).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Observations of CO_2 concentrations, globally-averaged temperature, and sea level rise are generally well within the range of the extent of the earlier IPCC projections. The recently observed increases in CH_4 and N_2O concentrations are smaller than those assumed in the scenarios in the previous assessments. Each IPCC assessment has used new projections of future climate change that have become more detailed as the models have become more advanced.

Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and sulfur hexafluoride (SF_6) (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (IPCC, 2007).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. The following discusses the primary GHGs of concern.

Carbon Dioxide

The global carbon cycle is made up of large carbon flows and reservoirs. Billions of tons of carbon in the form of CO_2 are absorbed by oceans and living biomass (i.e., sinks) and are emitted to the atmosphere annually through natural processes (i.e., sources). When in equilibrium, carbon fluxes among these various reservoirs are roughly balanced (United States Environmental Protection Agency [U.S. EPA], 2014). CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the second half of the 20th century. Concentrations of CO_2 in the atmosphere have risen approximately 40 percent since the industrial revolution. The global atmospheric concentration of CO_2 has increased from a pre-industrial value of about 280 parts per million (ppm) to 391 ppm in 2011 (IPCC, 2007; Oceanic and Atmospheric Administration [NOAA], 2010). The average annual CO_2 concentration growth rate was larger between 1995 and 2005 (average: 1.9 ppm per year) than it has been since the beginning of continuous direct atmospheric measurements (1960–2005 average: 1.4 ppm per year), although there is year-to-year variability in growth rates (NOAA, 2010). Currently, CO_2 represents an estimated 74 percent of total GHG emissions (IPCC, 2007). The largest source of CO_2 emissions, and of overall GHG emissions, is fossil fuel combustion.

Methane

Methane (CH_4) is an effective absorber of radiation, though its atmospheric concentration is less than that of CO_2 and its lifetime in the atmosphere is limited to 10 to 12 years. It has a GWP approximately 25 times that of CO_2. Over the last 250 years, the concentration of CH_4 in the atmosphere has increased by 148 percent (IPCC, 2007), although emissions have declined from 1990 levels. Anthropogenic sources of CH_4 include enteric fermentation associated with domestic livestock, landfills, natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, stationary and mobile combustion, and certain industrial processes (U.S. EPA, 2014).

Nitrous Oxide

Concentrations of nitrous oxide (N_2O) began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA, 2010). N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N_2O emissions. The GWP of nitrous oxide is approximately 298 times that of CO_2 (IPCC, 2007).

Fluorinated Gases (HFCS, PFCS and SF_6)

Fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfurhexafluoride (SF_6), are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and are phased out under the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF_6 emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production. Fluorinated gases are typically emitted in smaller quantities than CO_2, CH_4, and N_2O, but these compounds have much higher GWPs. SF_6 is the most potent GHG the IPCC has evaluated.

Greenhouse Gas Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO_2e in 2010 (IPCC, 2014). CO_2 emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, carbon dioxide was the most abundant accounting for 76 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases account for 6 and 2 percent respectively (IPCC, 2014).

Total U.S. GHG emissions were 6,525.6 MMT CO_2e in 2012 (U.S. EPA, 2014). Total U.S. emissions have increased by 4.7 percent since 1990; emissions decreased by 3.4 percent from 2011 to 2012 (U.S. EPA, 2014). The decrease from 2011 to 2012 was due to a decrease in the carbon intensity of fuels consumed to generate electricity due to a decrease in coal consumption, with increased natural gas consumption. Additionally, relatively mild winter conditions, especially in regions of the United States where electricity is important for heating, resulted in an overall decrease in electricity demand in most sectors. Since 1990, U.S. emissions have increased at an average annual

rate of 0.2 percent. In 2012, the transportation and industrial end-use sectors accounted for 28.2 percent and 27.9 percent of CO_2 emissions (with electricity-related emissions distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 16.3 percent and 16.4 percent of CO_2 emissions, respectively (U.S. EPA, 2014).

Based upon the California Air Resources Board (ARB) California Greenhouse Gas Inventory for 2000-2013, California produced 459.3 MMT CO_2E in 2013 (ARB, 2015). The major source of GHG in California is transportation, contributing 37 percent of the state's total GHG emissions. Industrial sources are the second largest source of the state's GHG emissions (CARB, 2015). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. The ARB has projected statewide unregulated GHG emissions for the year 2020 will be 509.4 MMT CO_2e (ARB, 2014). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The global combined land and ocean temperature data show an increase of about 0.89°C (0.69°C–1.08°C) over the period 1901–2012 and about 0.72°C (0.49°C–0.89°C) over the period 1951–2012 when described by a linear trend. Several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations are in agreement that LSAT as well as sea surface temperatures have increased. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC, 2013).

According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, 2010). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Energy Commission [CEC], 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future water supplies in California. However, the average early spring snowpack in the Sierra Nevada decreased by about 10 percent during the last century, a loss of 1.5 million acre-feet of snowpack storage. During the same period, sea level rose eight inches along California's coast. California's temperature has risen 1°F, mostly at night and during the winter, with higher elevations experiencing the highest increase. Many Southern California cities have experienced their lowest recorded annual precipitation twice within the past decade. In a span of only two years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR], 2008; CCCC, 2009).

This uncertainty complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. Based upon historical data and modeling DWR projects that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by 2050. Climate change is also anticipated to bring warmer storms that result in less snowfall at lower elevations, reducing the total snowpack (DWR, 2008).

Hydrology and Sea Level Rise

As discussed above, climate change could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. According to The Impacts of Sea-Level Rise on the California Coast, prepared by the California Climate Change Center (CCCC) (CCCC, 2009), climate change has the potential to induce substantial sea level rise in the coming century. The rising sea level increases the likelihood and risk of flooding. The rate of increase of global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO], 2013). As a result, sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO,

2013). Sea levels are rising faster now than in the previous two millennia, and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report (2013) predicts a mean sea–level rise of 11-38 inches by 2100. This prediction is more than 50 percent higher than earlier projections of 7-23 inches, when comparing the same emissions scenarios and time periods. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply due to salt water intrusion. Projected sea level rise in Long Beach is depicted in Figure 1. This figures show an approximate 4.6-foot (1.4-meter) sea level rise combined with a 100-year flood. I*n addition, i*ncreased CO_2 emissions can cause oceans to acidify due to the carbonic acid it forms. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a $30 billion annual agricultural industry that produces half of the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (CCCC, 2006).

Ecosystems and Wildlife

Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the average global surface temperature could rise by 1.0-4.5°F (0.6-2.5°C) in the next 50 years, and 2.2-10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan, 2006).

According to the Center for Ocean Solutions, potential impacts from sea level rise on coastal communities, such as those in Long Beach, include: coastal erosion, coastal inundation, the intrusion of salt water into fresh water, and increased frequency and intensity of storms and waves. Unlike flooding events that can be short lived, erosion can cause greater and potentially permanent damage. Coastal erosion will increase as global sea levels continue to rise. Higher sea levels will allow waves and tides to travel farther inland, exposing beaches, cliffs and coastal dunes to more persistent erosion forces. Erosion is not a new issue in California but rising sea levels threaten to increase the severity and frequency of erosion damage to coastal infrastructure and property.

Regulatory Setting and CEQA Requirements

The following regulations address both climate change and GHG emissions.

Federal Regulations

The United States Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act.

The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The first annual reports for these sources were due in March 2011.

On May 13, 2010, the U.S. EPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 tons CO_2e per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit after that date. On November 10, 2010, the U.S. EPA published the "PSD and Title V Permitting Guidance for Greenhouse Gases." The U.S. EPA's guidance document is directed at state agencies responsible for air pollution permits under the Federal Clean Air Act to help them understand how to implement GHG reduction requirements while mitigating costs for industry. It is expected that most states will use the U.S. EPA's new guidelines when processing new air pollution permits for power plants, oil refineries, cement manufacturing, and other large pollution point sources.

On January 2, 2011, the U.S. EPA implemented the first phase of the Tailoring Rule for GHG emissions Title V Permitting. Under the first phase of the Tailoring Rule, all new sources of emissions are subject to GHG Title V permitting if they are otherwise subject to Title V for another air pollutant and they emit at least 75,000 tons CO_2e per year. Under Phase 1, no sources were required to obtain a Title V permit solely due to GHG emissions. Phase 2 of the Tailoring Rule went into effect July 1, 2011. At that time new sources were subject to GHG Title V permitting if the source emits 100,000 tons CO_2e per year, or they are otherwise subject to Title V permitting for another pollutant and emit at least 75,000 tons CO_2e per year.

On July 3, 2012 the U.S. EPA issued the final rule that retains the GHG permitting thresholds that were established in Phases 1 and 2 of the GHG Tailoring Rule. These emission thresholds determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

California Regulations

California Air Resources Board (ARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. California has a numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires ARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, U.S. EPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas

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California Flood Risk: Sea Level Rise - Long Beach Figure 1

emission standards for motor vehicles beginning with the 2009 model year. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" will cover 2017 to 2025. Fleet average emission standards would reach 22 percent reduction from 2009 levels by 2012 and 30 percent by 2016. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (ARB, 2011).

In 2005, former Governor Schwarzenegger issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels (CalEPA, 2006). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report") (CalEPA, 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, etc. In April 2015 Governor Brown issued EO B-30-15, calling for a new target of 40 percent below 1990 levels by 2030.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by ARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years. Implementation activities are ongoing and ARB is currently the process of updating the Scoping Plan.

In May 2014, ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State

policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (ARB, 2014).

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

ARB Resolution 07-54 establishes 25,000 MT of GHG emissions as the threshold for identifying the largest stationary emission sources in California for purposes of requiring the annual reporting of emissions. This threshold is just over 0.005 percent of California's total inventory of GHG emissions for 2004.

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 13 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

In April 2011, Governor Brown signed SB 2X requiring California to generate 33 percent of its electricity from renewable energy by 2020.

On April 29, 2015, Governor Brown issued an executive order to establish a statewide mid-term GHG reduction target of 40 percent below 1990 levels by 2030. According to CARB, reducing GHG emissions by 40 percent below 1990 levels in 2030 ensures that California will continue its efforts to reduce carbon pollution and help to achieve federal health-based air quality standards. Setting clear targets beyond 2020 also provides market certainty to foster investment and growth in a wide array of industries throughout the State, including clean technology and clean energy. CARB is currently working to update the Scoping Plan to provide a framework for achieving the 2030 target. The updated Scoping Plan is expected to be completed and adopted by CARB in 2016 (CARB 2015).

For more information on the Senate and Assembly Bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

California Environmental Quality Act

Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the *State CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted *CEQA Guidelines* provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, a variety of air districts have adopted quantitative significance thresholds for GHGs.

Local Regulations

In February 2010, the Long Beach City Council adopted the Long Beach Sustainable City Action Plan, which includes initiatives, goals, and actions to reduce the City's GHG emissions. In October 2011, the Port of Long Beach developed the Greenhouse Gas Emissions Reduction Mitigation Grant Program (GHG Grant Program) to provide grant funds for projects that will reduce, avoid or capture GHG emissions. Projects eligible for funding from the program include energy efficiency, transportation, renewable energy and landscaping projects. The City of Long Beach has successfully registered its GHG emissions inventory with the California Climate Action Registry, earning the distinction of Climate Action Leader. The City is now publicly and voluntarily reporting its 2007 GHG emissions under the California Registry's program.

IMPACT ANALYSIS

Methodology and Significance Thresholds

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume (IPCC, 2007) and are the GHG emissions that the Proposed Project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF_6, were also considered for the analysis. However, the potential for future occupants of the proposed tower is unknown at this time and to forecast emissions of fluorinated gases would be necessarily speculative. Emissions of all GHGs are converted into their CO_2e. Minimal amounts of other main GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the calculated CO_2e amounts. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (2009).

This analysis calculates GHG emissions by quantifying the project's amenities and design features and takes into account current state and federal measures that are intended to reduce GHG emissions. State and federal measures that are built into the emissions model calculation include Title 24 Energy Standards, Pavley (Clean Car Standards) and Low Carbon Fuel Standards.

Construction Emissions

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the CEQA and Climate Change white paper, "more study is

needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA, 2008). Nevertheless, the SCAQMD has recommended amortizing construction-related emissions over a 30-year period in conjunction with the Proposed Project's operational emissions.

The construction schedule for the Approved Project and the Proposed Project would span 30 months and both projects are anticipated to be operational by 2020. Approximately four to five months of construction would consist of grading and excavation, which are expected to require approximately 73,000 cubic yards (CY) of soil. Building erection would occur over the next approximately 22 months. Building completion would occur over the last four months of the 30-month construction phase. Construction equipment that would generate criteria air pollutants includes excavators, graders, dump trucks, and loaders. Some of this equipment would be used during grading activities as well as when structures are constructed. It is assumed that all construction equipment used would be diesel-powered. The construction emissions associated with development of the Proposed Project were calculated using the California Emissions Estimator Model (CalEEMod) software. Complete CalEEMod results and assumptions can be viewed in the Appendix.

For the purposes of construction emissions modeling, it was assumed that both the Approved Project and Proposed Project would comply with SCAQMD Rule 403, which is required by the 2006 Shoreline EIR Mitigation Measure AQ-1. Rule 403 identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. Therefore, the following conditions, which would be required to reduce fugitive dust in compliance with SCAQMD Rule 403, were included in CalEEMod for the site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. In addition, a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide, shall be utilized to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. If no further grading or excavation operations are planned for the area, the area shall be seeded and

watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.

4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

The architectural coating phase involves the greatest release of ROG. The emissions modeling also included the use of low-VOC paint (150 g/L for non-flat coatings) as required by SCAQMD Rule 1113 for both the Approved and Proposed Projects and as required by 2006 Shoreline EIR Mitigation Measure AQ-4.

On-site Operational Emissions

Operational emissions from energy use (electricity and natural gas use) for the Approved Project and Proposed Project were estimated using CalEEMod (see Appendix for CalEEMod output). The default values on which CalEEMod are based include the CEC sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. CalEEMod provides operational emissions of CO_2, N_2O and CH_4. This methodology is considered reasonable and reliable for use, as it has been subjected to peer review by numerous public and private stakeholders, and in particular by the CEC. It is also recommended by CAPCOA (2008).

Operational emissions include mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the project site associated with operation of on-site development. The Approved and Proposed Project traffic generation rates from the Traffic Impact Analysis prepared by Linscott, Law & Greenspan, Engineers (LLG) (2016) were used for the operational emissions calculations.

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, USEPA, and district supplied emission factor values (SCAQMD, 2011).

Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (SCAQMD, 2011). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California.

Direct Emissions from Mobile Combustion

Emissions of CO_2 and CH_4 from transportation sources for the Approved Project and Proposed Project were quantified using CalEEMod. Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using the California Climate Action Registry General Reporting Protocol (2009) direct emissions factors for mobile combustion (see Appendix for calculations). The estimate of total daily trips associated with the Proposed Project was based on the traffic generation rates in the Traffic Impact Analysis prepared by Linscott, Law, and Greenspan, Engineers (LLG) in August 2016 and was calculated and extrapolated to derive total annual mileage in CalEEMod. Estimates for the Approved Project were specified in the 2006 Shoreline EIR. The Approved Project would generate an estimated 3,080 daily trips (Long Beach, City of 2006). Emission rates for N_2O emissions for the Approved and Proposed Projects were based on the vehicle mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

A limitation of the quantitative analysis of emissions from mobile combustion is that emission models, such as CalEEMod, evaluate aggregate emissions, meaning that all vehicle trips and related emissions assigned to a project are assumed to be new trips and emissions generated by the project itself. Such models do not demonstrate, with respect to a regional air quality impact, what proportion of these emissions are actually "new" emissions, specifically attributable to the project in question. For most projects, the main contributor to regional air quality emissions is from motor vehicles; however, the quantity of vehicle trips appropriately characterized as "new" is usually uncertain as traffic associated with a project may be relocated trips from other locales. In other words, vehicle trips associated with the Proposed Project may include trips relocated from other existing locations. Therefore, because the proportion of "new" versus relocated trips is unknown, the VMT estimate generated by CalEEMod is used as a conservative, "worst-case" estimate.

Service Population

The service population (SP) is the number of residents accommodated by the project plus the number of jobs supported by the project. The Proposed Project would accommodate up to 315 new residential units within Long Beach and the Approved Project would accommodate up to 221 residential units. The City has approximately 2.84 persons per household (California Department of Finance, 2016). Development of the Proposed Project would therefore accommodate an estimated 895 residents (315 dwelling units x 2.84 people/dwelling unit), while the Approved Project would accommodate an estimated 628 residents. In addition, the Approved Project and Proposed Project's commercial components would support jobs. As shown in Table 1, the Proposed Project would support approximately three employees in the retail area and the Approved Project would support four employees in the restaurant. Therefore, the total service population for the Proposed Project and Approved Project would be 898 and 632 persons, respectively.

Table 1
Employees Supported by Proposed Project

Land Use	Area (sf)	Area (acres)	Employees per Acre	Total Employees
Proposed-Retail	6,700	0.15	18.86	3
Approved-Restaurant	6,270	0.14	25.76	4

Source: Table C-1, Range of Employment Densities (Employees Per Acre) by County (Southern California Association of Governments (SCAG)). Employee rate for "Other Retail/Services" in SCAG Table C-1 was used as "Restaurant" is not listed. Total employees rounded up as partial employees are not possible.

Significance Thresholds

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions in March 2010. These guidelines are used in evaluating the cumulative significance of GHG emissions from the Proposed Project. According to the adopted CEQA Guidelines, impacts related to GHG emissions from the net change between the Approved Project and Proposed Project would be significant if the project would:

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

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 MT CO_2e/year to be significant. However, the SCAQMD's threshold applies only to stationary sources and is intended to apply only when the SCAQMD is the CEQA lead agency.

In the latest guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD considered a tiered approach to determine the significance of residential and commercial projects. The draft-tiered approach is outlined in the meeting minutes, dated September 29, 2010.

> ***Tier 1*** *- If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.*
>
> ***Tier 2*** *- Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed*

project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.

Tier 3 *- Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 metric tons (MT) of CO_2e per year for mixed use projects.*

Tier 4 *- Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT of CO_2e per year for land use projects.*

The City of Long Beach has not adopted a GHG reduction plan; therefore, the Proposed Project is evaluated based on the SCAQMD's recommended Tier 4 significance threshold of 4.8 MT of CO_2e per year. The Tier 3 screening level threshold is intended to assess small and average sized projects, whereas the Tier 4 service population (SP) threshold is intended to avoid penalizing larger projects that incorporate GHG-reduction measures such that they may have high total annual GHG emissions, but would be relatively efficient, as compared to projects of similar scale. The efficiency threshold is the most appropriate threshold for the Proposed Project.

Greenhouse Gas Emissions Impacts

Consistency with GHG Reduction Plans & Policies

The Proposed Project would be generally consistent with applicable regulations or plans addressing GHG reductions. As indicated above, the CAT published the Climate Action Team Report (the "2006 CAT Report") in March 2006. The CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHG emissions. The CAT strategies are recommended to reduce GHG emissions at a statewide level to meet the goals of the Executive Order S-3-05. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

The City of Long Beach adopted a Sustainable City Action Plan in 2010. This plan contains goals intended to support sustainable development within the City. Implementation of this plan would contribute to a reduction in the City's overall GHG emissions.

Tables 2 and 3 illustrate that the Proposed Project would be consistent with the GHG reduction strategies set forth by the 2006 CAT Report and the Long Beach Sustainable City Action Plan.

Table 2
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
California Air Resources Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in September 2004.	**Consistent** Vehicles that travel to and from the project site on public roadways would be in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Diesel Anti-Idling The CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling in July 2004.	**Consistent** Current State law restricts diesel truck idling to five minutes or less (CCR Section 2485(b). Diesel trucks operating from and making deliveries to the project site are subject to this state-wide law. Construction vehicles are also subject to this regulation. The Proposed Project would be required to comply with 2006 Shoreline EIR Mitigation Measure AQ-5 which requires turning off construction equipment when not in use and Mitigation Measure AQ-3 to avoid equipment idling of more than two minutes.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans. 2) Require that only low GWP refrigerants be used in new vehicular systems. 3) Adopt specifications for new commercial refrigeration. 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. 5) Enforce federal ban on releasing HFCs.	**Consistent** This strategy applies to consumer products. All applicable products would be required to comply with the regulations that are in effect at the time of manufacture.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	**Consistent** Diesel vehicles such as construction vehicles that travel to and from the project site on public roadways could utilize this fuel once it is commercially available. 2006 Shoreline EIR would require electric- or diesel-powered stationary equipment where feasible with Mitigation Measure AQ-5.
Alternative Fuels: Ethanol Increased use of E-85 fuel.	**Consistent** Residents living at the project site could choose to purchase flex-fuel vehicles and utilize this fuel, which is currently available at locations in Wilmington, approximately five miles northwest of the project site. 2006 Shoreline EIR would require electric- or diesel-powered stationary equipment where feasible with Mitigation Measure AQ-5
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.	**Consistent** Heavy-duty vehicles for construction activities that travel to and from the project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.

Table 2
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Achieve 50 Percent Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	**Consistent** According to data provided by CalRecycle, the City of Long Beach met its target disposal rates for both per resident and per employee metrics. Based on data for 2015 (the most recent year for which approved data is available), the City's per resident disposal rate was 4.7 pounds per day (ppd). The City has implemented more than 40 programs designed to sustain these disposal rates. The Proposed Project would recycle an estimated 80 percent of the construction material waste.
Zero Waste – High Recycling Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.	**Consistent** As described above it is anticipated that the Proposed Project would participate in waste diversion programs. The project would also be subject to all applicable State and City requirements for solid waste reduction as they change in the future. The Proposed Project would recycle an estimated 80 percent of the construction material waste.
Department of Forestry	
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	**Consistent** Landscaping for the new residential tower would result in additional planted trees throughout the project site.
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	**Consistent** The new proposed residential tower would be required to be consistent with CalGreen standards. As such, the Proposed Project would be equipped with low-flow plumbing fixtures, reducing water use. The Proposed Project would have a fully integrated cistern, shared with the existing adjacent tower that collects all rainwater on site and re-uses it for the project's drip irrigation system.
Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	**Consistent** The Proposed Project would be required to comply with Title 24 standards that are in effect at the time of development (2006 Shoreline EIR Mitigation Measure AQ-7). The Proposed Project would be equipped with energy efficient stainless steel appliances and energy efficient windows.

Table 2
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	**Consistent** Under State law, appliances that are purchased for the Proposed Project - both pre- and post-development – would be consistent with energy efficiency standards that are in effect at the time of manufacture.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation established a statewide program to encourage the production and use of more efficient tires.	*Not applicable*. This is a residential/retail project and would not require fuel-efficient replacement tires.
Municipal Utility Energy Efficiency Programs/Demand Response Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	*Not applicable*, but project development would not preclude the implementation of this strategy by municipal utility providers.
Municipal Utility Renewable Portfolio Standard California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 20 percent of retail electricity sales from renewable energy sources by 2017, within certain cost constraints.	*Not applicable*, but the Proposed Project would not preclude implementation of this strategy by Southern California Edison.
Municipal Utility Combined Heat and Power Cost effective reduction from fossil fuel consumption in the commercial and industrial sector through the application of on-site power production to meet both heat and electricity loads.	*Not applicable* since this strategy addresses incentives that could be provided by utility providers such as Southern California Edison.
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	**Consistent** Residents living at the project site could choose to purchase flex-fuel vehicles and utilize this fuel, which is currently available at locations in Wilmington approximately five miles northwest of the project site.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	**Consistent** The Proposed Project would be required to comply with Title 24 standards (2006 Shoreline EIR Mitigation Measure AQ-7) .
Business, Transportation and Housing	

Table 2
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. The Governor is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	**Consistent** The Proposed Project would integrate an active bus line directly adjacent to a large public/private plaza and is situated within a ten minute walk to the Metro Bus Blue Line.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewable in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	*Not applicable*, but project development would not preclude the implementation of this strategy by energy providers.
California Solar Initiative The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	**Consistent** The Proposed Project would be required to comply with Downtown Plan Mitigation Measure AQ-2, which requires the project to include such measures as photovoltaic cells on the rooftops to achieve a 25 percent reduction in electricity use on an average sunny day, in addition to exceeding Title 24 standards by 20 percent.

Table 3
Project Consistency with Applicable Long Beach Sustainable City Action Plan Goals

Goal	Project Consistency
Buildings and Neighborhoods	
At least 5 million square feet of privately developed LEED certified (or equivalent) green buildings by 2020	**Consistent** The Proposed Project is part of the first LEED-ND Gold campus plan and would be developed as a healthy living community. As such, the project would be designed to include delivery of fresh air into every unit (ECODUCT), low flow water plumbing fixtures, energy efficient stainless steel appliances, large operable and energy efficient windows, resident and retail patron/guest Electric Vehicle Charging stations, recycled content building materials, low to non-VOC paint and adhesive materials, and bicycle parking. Additionally, LED lighting would be utilized throughout the project site and an estimated minimum of 80 percent of the construction material waste would be recycled.
Plant at least 10,000 trees in Long Beach by 2020	**Consistent** Landscaping for the Proposed Project would result in additional planted trees throughout the project site, thus moving the City toward this target.
50 percent of Long Beach residents work in Long Beach by 2020	**Consistent** The Proposed Project would provide an additional 94 residential units as compared to the Approved Project for Long Beach residents. This would enhance local housing opportunities for Long Beach workers.
Energy	
Reduce community electricity use by 15 percent by 2020 Reduce community natural gas use by 10 percent by 2020	**Consistent** The Proposed Project would comply with the most recent Title 24 energy efficiency requirements (2006 Shoreline EIR Mitigation Measure AQ-7).
Facilitate the development of at least 8 Megawatts of solar energy within the community (private rooftops) by 2020.	**Consistent** The Proposed Project is part of the first LEED-ND Gold campus plan and would be developed as a healthy living community.
Transportation	
Increase public transit ridership by 25 percent by 2016 Increase bike ridership from 1 percent to 10 percent by 2016	**Consistent** The Proposed Project would integrate an active bus line directly adjacent to a large public/private plaza, and is situated within a ten minute walk to the Metro Blue Line and walking/biking paths.
Annual reduction in average pounds of solid waste generated per person per day	**Consistent** According to data provided by CalRecycle, the City of Long Beach met its target disposal rates for both per resident and per employee metrics. Based on data for 2015 (the most recent year for which approved data is available), the City's per resident disposal rate was 4.7 pounds per day (ppd), The City has implemented more than 40 programs designed

Table 3
Project Consistency with Applicable
Long Beach Sustainable City Action Plan Goals

Goal	Project Consistency
	to sustain these disposal rates. The Proposed Project would participate in City programs intended to continue solid waste diversion and would recycle a minimum of 80 percent of the construction material waste.

As indicated in Tables 2 and 3, the Proposed Project would not conflict with applicable CAT strategies or the Long Beach Sustainable City Action Plan goals.

Construction Emissions

Based on the CalEEMod results, construction of the Approved Project would generate an estimated 1,534 MT of CO_2e and construction of the Proposed Project would generate 1,828 MT of CO_2e (as shown in Tables 4 and 5). Amortized over a 30-year period (the assumed life of the project), construction of the Approved Project would generate an estimated 51 MT of CO_2e per year and construction of the Proposed Project would generate 61 MT of CO_2e per year.

Table 4
Estimated Construction Emissions of Greenhouse Gases
with Mitigation for the Approved Project

	Annual Emissions (Carbon Dioxide Equivalent [CO_2e] MT)
Total	1,533.8
Amortized over 30 years	**51.1 metric tons per year**

Source: Calculations were made in CalEEMod, see Appendix for full model output.

Table 5
Estimated Construction Emissions of Greenhouse Gases
with Mitigation for the Proposed Project

	Annual Emissions (Carbon Dioxide Equivalent [CO_2e])
Total	1,828.0
Amortized over 30 years	**60.9 metric tons per year**

Source: Calculations were made in CalEEMod, see Appendix for full model output.

Operational Indirect and Stationary Direct Emissions

Operational emissions include area sources (consumer products, landscape maintenance equipment, and painting), energy use (electricity and natural gas), solid waste, electricity to

deliver water, and transportation emissions associated with the Approved Project and the Proposed Project. Operational emissions were calculated using CalEEMod (see Appendix). CalEEMod does not calculate N_2O emissions related to mobile sources. As such, N_2O emissions for each project were calculated based on the Proposed Project's VMT using calculation methods provided by the California Climate Action Registry General Reporting Protocol (2009). Table 6 shows the net change in GHG emissions between the Proposed Project and the Approved Project. The Proposed Project would generate approximately 3,884 MT CO_2e per year from operational and mobile emissions and the Approved Project would generate approximately 2,910 MT of CO_2e. Therefore the Proposed Project would generate approximately 974 MT CO_2e more than the Approved Project.

Table 7 summarizes the combined emissions associated with construction and operation of the Proposed Project in comparison to anticipated operational emissions from the Approved Project. The Proposed Project would increase total GHG emissions by approximately 974 MT of CO_2e per year, as compared to the Approved Project.

Although the Proposed Project's emissions would be greater than 3,000 MT per year (SCAQMD's Tier 3 screening level threshold), it would not exceed SCAQMD's Tier 4 service population threshold of 4.8 MT of CO_2e per year. Furthermore, the Proposed Project would be more efficient, on a service population basis, at 4.4 MT of CO_2e per year than the Approved Project, at 4.6 MT of CO_2e per year. The 2006 Shoreline EIR did not analyze GHG emissions; therefore there are no GHG significance findings or specific mitigation measures related to GHG for the Approved Project. As discussed above, in Tables 2 and 3, the Proposed Project would not conflict with the Long Beach Sustainable Action Plan, SCAG's RTP/SCS, and CAT report GHG reduction strategies; therefore the Proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Table 6
Long-Term Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions MT CO_2e
Proposed Project Emissions	
Operational	
Area	5.4
Energy	798.9
Solid Waste	102.2
Water	131.6
Mobile	
CO_2 and CH_4	2,696.6
N_2O	149.1
Total Proposed Project Emissions	*3,883.8*
Approved Project Emissions	
Operational	
Area	3.8
Energy	664.0
Solid Waste	80.2
Water	94.3
Mobile	
CO_2 and CH_4	1,959.3
N_2O	108.0
Total Approved Project Emissions	*2,909.6*
Net Change in Long-Term GHG Emissions [Project – Approved]	**974.2 metric tons**

Source: Calculations were made in CalEEMod, see Appendix for full model output. Assumed compliance with SCAQMD Fugitive Dust Rule 403, SCAQMD Architectural Coating Rule 1113.

Table 7
Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions MT CO_2e
Proposed Project Emissions	
Construction	60.9
Operation	1,038.1
Mobile	2,845.7
Total Proposed Project Emissions	*3,944.7*
Proposed Emissions per SP	*4.4*
Exceed Threshold (4.8 MT CO_2e/SP/Year)?	**No**
Approved Project Emissions	
Construction	51.1
Operational	842.3
Mobile	2,067.3
Total Approved Project Emissions	*2,909.6*
Approved Emissions per SP	*4.6*
Net Change in GHG Emissions [Project – Approved]	**974.2**
Net Change in GHG Emissions per SP	**-0.2**
Exceed Threshold (4.8 MT CO_2e/SP/Year)?	**No**

SP = Service population (SP for the Proposed Project is 898 persons and SP for the Approved project is 632 persons).

Source: Calculations were made in CalEEMod, see Appendix for full model output. Assumed compliance with SCAQMD Fugitive Dust Rule 403, SCAQMD Architectural Coating Rule 1113.

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Appendix

California Emissions Estimator Model (CalEEMod) Air Quality Modeling Worksheets

Greenhouse Gas Emissions Worksheet: N2O Mobile Emissions

Shoreline Gateway East Tower Project

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	458.00	Space	0.00	161,670.00	0
High Turnover (Sit Down Restaurant)	6.71	1000sqft	0.00	6,710.00	0
Apartments High Rise	315.00	Dwelling Unit	0.60	414,053.00	901

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**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 -

Land Use - total Total lot acerage for all land uses = 0.6 estimated from site plans, Residential (including common areas) SF = 414053 based on site plans

Construction Phase - Based on construction details

Off-road Equipment -

Off-road Equipment - Bore/Drill Rig added to account for pile driving activities during grading and excavation phase

Off-road Equipment -

Trips and VMT - Construction details from applicant

Grading - Total acerage = 0.6 estimated from site plans

Architectural Coating - Assumed compliance with SCAQMD Rule 1113 and 2006 EIR MM AQ-4

Vehicle Trips - Includes 5% reduction from non-auto trip adjustment in Draft TIA.

Woodstoves - Based on site plans

Area Coating - Assumed compliance with SCAQMD Rule 1113 and 2006 EIR MM AQ-4

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 and 2006 EIR MM AQ-1. SCAQMD "PM2.5 Working Group" MM resources

Mobile Land Use Mitigation - Project is TOD and infill. See PD.

Area Mitigation - Assumed compliance with SCAQMD Rule 1113

Energy Mitigation - CalEEMod only acocunts for T24 2008, compliance with T24 2013 results in a 25% improvement, CEC 2013 Building Energy Efficiency Standards FAQ. Project includes energy efficient appliances and LEDs.

Water Mitigation - Project includes low flow plumbing fixtures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstructionPhase	NumDays	5.00	282.00

tblConstructionPhase	NumDays	100.00	566.00
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	40.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/2/2019
tblConstructionPhase	PhaseEndDate	8/27/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	7/3/2019	6/2/2018
tblConstructionPhase	PhaseStartDate	7/3/2019	5/8/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	267.75	0.00
tblFireplaces	NumberNoFireplace	31.50	0.00
tblFireplaces	NumberWood	15.75	0.00
tblGrading	AcresOfGrading	0.00	0.60
tblGrading	MaterialExported	0.00	73,000.00
tblLandUse	LandUseSquareFeet	183,200.00	161,670.00
tblLandUse	LandUseSquareFeet	315,000.00	414,053.00
tblLandUse	LotAcreage	4.12	0.00
tblLandUse	LotAcreage	0.15	0.00
tblLandUse	LotAcreage	5.08	0.60
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	9,125.00	5,214.00
tblVehicleTrips	WD_TR	6.59	6.32
tblVehicleTrips	WD_TR	127.15	166.10
tblWoodstoves	NumberCatalytic	15.75	0.00
tblWoodstoves	NumberNoncatalytic	15.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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					
2017	0.3585	3.0262	3.7546	8.5200e-003	0.4047	0.1306	0.5354	0.1172	0.1212	0.2384	0.0000	710.2285	710.2285	0.0633	0.0000	711.5582
2018	1.8579	2.3945	4.1635	9.2700e-003	0.5254	0.1167	0.6421	0.1405	0.1083	0.2488	0.0000	719.3053	719.3053	0.0655	0.0000	720.6815
2019	1.4916	1.2987	2.2552	5.2200e-003	0.2858	0.0632	0.3490	0.0764	0.0589	0.1353	0.0000	394.9019	394.9019	0.0390	0.0000	395.7205
Total	**3.7080**	**6.7193**	**10.1733**	**0.0230**	**1.2159**	**0.3105**	**1.5264**	**0.3341**	**0.2884**	**0.6225**	**0.0000**	**1,824.4356**	**1,824.4356**	**0.1678**	**0.0000**	**1,827.9602**

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					
2017	0.3585	3.0261	3.7546	8.5200e-003	0.3797	0.1306	0.5103	0.1047	0.1212	0.2259	0.0000	710.2283	710.2283	0.0633	0.0000	711.5580
2018	1.8579	2.3945	4.1635	9.2700e-003	0.5254	0.1167	0.6421	0.1405	0.1083	0.2488	0.0000	719.3051	719.3051	0.0655	0.0000	720.6813
2019	1.4916	1.2987	2.2552	5.2200e-003	0.2858	0.0632	0.3490	0.0764	0.0589	0.1353	0.0000	394.9017	394.9017	0.0390	0.0000	395.7204
Total	**3.7080**	**6.7193**	**10.1733**	**0.0230**	**1.1909**	**0.3105**	**1.5014**	**0.3216**	**0.2884**	**0.6100**	**0.0000**	**1,824.4351**	**1,824.4351**	**0.1678**	**0.0000**	**1,827.9597**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**2.06**	**0.00**	**1.64**	**3.75**	**0.00**	**2.02**	**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	2.5420	0.0378	3.2653	1.7000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	5.3179	5.3179	5.2100e-003	0.0000	5.4272
Energy	0.0253	0.2206	0.1257	1.3800e-003		0.0175	0.0175		0.0175	0.0175	0.0000	971.3744	971.3744	0.0380	0.0115	975.7194
Mobile	1.5017	4.0374	16.1232	0.0467	3.1678	0.0633	3.2311	0.8477	0.0584	0.9061	0.0000	3,274.4542	3,274.4542	0.1184	0.0000	3,276.9409
Waste						0.0000	0.0000		0.0000	0.0000	45.6222	0.0000	45.6222	2.6962	0.0000	102.2423
Water						0.0000	0.0000		0.0000	0.0000	7.1573	125.6131	132.7704	0.7409	0.0186	154.0806
Total	**4.0690**	**4.2958**	**19.5141**	**0.0482**	**3.1678**	**0.0988**	**3.2665**	**0.8477**	**0.0938**	**0.9415**	**52.7795**	**4,376.7596**	**4,429.5391**	**3.5987**	**0.0300**	**4,514.4104**

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	2.4834	0.0378	3.2653	1.7000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	5.3179	5.3179	5.2100e-003	0.0000	5.4272
Energy	0.0214	0.1872	0.1099	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	795.2853	795.2853	0.0309	9.4300e-003	798.8575
Mobile	1.4232	3.4284	14.1418	0.0384	2.5884	0.0526	2.6410	0.6927	0.0485	0.7412	0.0000	2,694.5396	2,694.5396	0.0987	0.0000	2,696.6132
Waste						0.0000	0.0000		0.0000	0.0000	45.6222	0.0000	45.6222	2.6962	0.0000	102.2423
Water						0.0000	0.0000		0.0000	0.0000	5.7259	108.8004	114.5263	0.5930	0.0149	131.5978
Total	**3.9280**	**3.6533**	**17.5169**	**0.0397**	**2.5884**	**0.0853**	**2.6737**	**0.6927**	**0.0812**	**0.7739**	**51.3481**	**3,603.9432**	**3,655.2913**	**3.4240**	**0.0243**	**3,734.7381**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.46**	**14.96**	**10.23**	**17.57**	**18.29**	**13.60**	**18.15**	**18.29**	**13.42**	**17.80**	**2.71**	**17.66**	**17.48**	**4.85**	**18.90**	**17.27**

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	1/1/2017	5/1/2017	5	86	
2	Building Construction	Building Construction	5/2/2017	7/2/2019	5	566	
3	Architectural Coating	Architectural Coating	6/2/2018	7/2/2019	5	282	
4	Paving	Paving	5/8/2019	7/2/2019	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 838,457; Residential Outdoor: 279,486; Non-Residential Indoor: 252,570; Non-Residential Outdoor: 84,190 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving				81	0.73
Paving				255	0.40
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	5,214.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	298.00	61.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 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					
Fugitive Dust					0.0368	0.0000	0.0368	0.0185	0.0000	0.0185	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0653	0.6465	0.4547	8.9000e-004		0.0369	0.0369		0.0350	0.0350	0.0000	81.0259	81.0259	0.0198	0.0000	81.4412
Total	**0.0653**	**0.6465**	**0.4547**	**8.9000e-004**	**0.0368**	**0.0369**	**0.0737**	**0.0185**	**0.0350**	**0.0534**	**0.0000**	**81.0259**	**81.0259**	**0.0198**	**0.0000**	**81.4412**

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	0.0441	0.6978	0.5507	1.9200e-003	0.0447	0.0102	0.0549	0.0123	9.4100e-003	0.0217	0.0000	172.9136	172.9136	1.2400e-003	0.0000	172.9397
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	2.0100e-003	2.9700e-003	0.0309	8.0000e-005	6.1300e-003	5.0000e-005	6.1800e-003	1.6300e-003	5.0000e-005	1.6800e-003	0.0000	5.5254	5.5254	2.9000e-004	0.0000	5.5314
Total	**0.0461**	**0.7008**	**0.5816**	**2.0000e-003**	**0.0508**	**0.0103**	**0.0611**	**0.0139**	**9.4600e-003**	**0.0233**	**0.0000**	**178.4390**	**178.4390**	**1.5300e-003**	**0.0000**	**178.4711**

3.2 Grading - 2017

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					0.0118	0.0000	0.0118	5.9000e-003	0.0000	5.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0653	0.6465	0.4547	8.9000e-004		0.0369	0.0369		0.0350	0.0350	0.0000	81.0258	81.0258	0.0198	0.0000	81.4411
Total	**0.0653**	**0.6465**	**0.4547**	**8.9000e-004**	**0.0118**	**0.0369**	**0.0487**	**5.9000e-003**	**0.0350**	**0.0409**	**0.0000**	**81.0258**	**81.0258**	**0.0198**	**0.0000**	**81.4411**

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	0.0441	0.6978	0.5507	1.9200e-003	0.0447	0.0102	0.0549	0.0123	9.4100e-003	0.0217	0.0000	172.9136	172.9136	1.2400e-003	0.0000	172.9397
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	2.0100e-003	2.9700e-003	0.0309	8.0000e-005	6.1300e-003	5.0000e-005	6.1800e-003	1.6300e-003	5.0000e-005	1.6800e-003	0.0000	5.5254	5.5254	2.9000e-004	0.0000	5.5314
Total	**0.0461**	**0.7008**	**0.5816**	**2.0000e-003**	**0.0508**	**0.0103**	**0.0611**	**0.0139**	**9.4600e-003**	**0.0233**	**0.0000**	**178.4390**	**178.4390**	**1.5300e-003**	**0.0000**	**178.4711**

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	0.1108	1.1026	0.6994	9.9000e-004		0.0744	0.0744		0.0685	0.0685	0.0000	91.5161	91.5161	0.0280	0.0000	92.1049
Total	**0.1108**	**1.1026**	**0.6994**	**9.9000e-004**		**0.0744**	**0.0744**		**0.0685**	**0.0685**	**0.0000**	**91.5161**	**91.5161**	**0.0280**	**0.0000**	**92.1049**

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	0.0432	0.4385	0.5861	1.1500e-003	0.0327	6.7100e-003	0.0394	9.3200e-003	6.1700e-003	0.0155	0.0000	102.9854	102.9854	7.4000e-004	0.0000	103.0009
Worker	0.0931	0.1378	1.4328	3.4900e-003	0.2844	2.3300e-003	0.2868	0.0755	2.1500e-003	0.0777	0.0000	256.2621	256.2621	0.0132	0.0000	256.5401
Total	**0.1363**	**0.5763**	**2.0189**	**4.6400e-003**	**0.3171**	**9.0400e-003**	**0.3261**	**0.0849**	**8.3200e-003**	**0.0932**	**0.0000**	**359.2475**	**359.2475**	**0.0140**	**0.0000**	**359.5410**

3.3 Building Construction - 2017

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	0.1108	1.1026	0.6994	9.9000e-004		0.0744	0.0744		0.0685	0.0685	0.0000	91.5160	91.5160	0.0280	0.0000	92.1048
Total	**0.1108**	**1.1026**	**0.6994**	**9.9000e-004**		**0.0744**	**0.0744**		**0.0685**	**0.0685**	**0.0000**	**91.5160**	**91.5160**	**0.0280**	**0.0000**	**92.1048**

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	0.0432	0.4385	0.5861	1.1500e-003	0.0327	6.7100e-003	0.0394	9.3200e-003	6.1700e-003	0.0155	0.0000	102.9854	102.9854	7.4000e-004	0.0000	103.0009
Worker	0.0931	0.1378	1.4328	3.4900e-003	0.2844	2.3300e-003	0.2868	0.0755	2.1500e-003	0.0777	0.0000	256.2621	256.2621	0.0132	0.0000	256.5401
Total	**0.1363**	**0.5763**	**2.0189**	**4.6400e-003**	**0.3171**	**9.0400e-003**	**0.3261**	**0.0849**	**8.3200e-003**	**0.0932**	**0.0000**	**359.2475**	**359.2475**	**0.0140**	**0.0000**	**359.5410**

3.3 Building Construction - 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	0.1408	1.4300	1.0080	1.4800e-003		0.0921	0.0921		0.0847	0.0847	0.0000	134.9913	134.9913	0.0420	0.0000	135.8738
Total	**0.1408**	**1.4300**	**1.0080**	**1.4800e-003**		**0.0921**	**0.0921**		**0.0847**	**0.0847**	**0.0000**	**134.9913**	**134.9913**	**0.0420**	**0.0000**	**135.8738**

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	0.0606	0.6037	0.8423	1.7200e-003	0.0490	9.4800e-003	0.0585	0.0140	8.7200e-003	0.0227	0.0000	151.8864	151.8864	1.1000e-003	0.0000	151.9096
Worker	0.1255	0.1875	1.9464	5.2400e-003	0.4267	3.4000e-003	0.4301	0.1133	3.1500e-003	0.1165	0.0000	370.0456	370.0456	0.0184	0.0000	370.4326
Total	**0.1861**	**0.7912**	**2.7888**	**6.9600e-003**	**0.4757**	**0.0129**	**0.4885**	**0.1273**	**0.0119**	**0.1392**	**0.0000**	**521.9320**	**521.9320**	**0.0195**	**0.0000**	**522.3421**

3.3 Building Construction - 2018

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	0.1408	1.4300	1.0080	1.4800e-003		0.0921	0.0921		0.0847	0.0847	0.0000	134.9912	134.9912	0.0420	0.0000	135.8737
Total	**0.1408**	**1.4300**	**1.0080**	**1.4800e-003**		**0.0921**	**0.0921**		**0.0847**	**0.0847**	**0.0000**	**134.9912**	**134.9912**	**0.0420**	**0.0000**	**135.8737**

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	0.0606	0.6037	0.8423	1.7200e-003	0.0490	9.4800e-003	0.0585	0.0140	8.7200e-003	0.0227	0.0000	151.8864	151.8864	1.1000e-003	0.0000	151.9096
Worker	0.1255	0.1875	1.9464	5.2400e-003	0.4267	3.4000e-003	0.4301	0.1133	3.1500e-003	0.1165	0.0000	370.0456	370.0456	0.0184	0.0000	370.4326
Total	**0.1861**	**0.7912**	**2.7888**	**6.9600e-003**	**0.4757**	**0.0129**	**0.4885**	**0.1273**	**0.0119**	**0.1392**	**0.0000**	**521.9320**	**521.9320**	**0.0195**	**0.0000**	**522.3421**

3.3 Building Construction - 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	0.0624	0.6390	0.4925	7.4000e-004		0.0395	0.0395		0.0363	0.0363	0.0000	66.6395	66.6395	0.0211	0.0000	67.0822
Total	**0.0624**	**0.6390**	**0.4925**	**7.4000e-004**		**0.0395**	**0.0395**		**0.0363**	**0.0363**	**0.0000**	**66.6395**	**66.6395**	**0.0211**	**0.0000**	**67.0822**

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	0.0288	0.2794	0.4084	8.6000e-004	0.0246	4.5100e-003	0.0291	7.0200e-003	4.1500e-003	0.0112	0.0000	74.7475	74.7475	5.4000e-004	0.0000	74.7589
Worker	0.0578	0.0863	0.8958	2.6200e-003	0.2142	1.6800e-003	0.2158	0.0569	1.5600e-003	0.0584	0.0000	178.6629	178.6629	8.6600e-003	0.0000	178.8447
Total	**0.0866**	**0.3657**	**1.3042**	**3.4800e-003**	**0.2387**	**6.1900e-003**	**0.2449**	**0.0639**	**5.7100e-003**	**0.0696**	**0.0000**	**253.4103**	**253.4103**	**9.2000e-003**	**0.0000**	**253.6035**

3.3 Building Construction - 2019

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	0.0624	0.6390	0.4925	7.4000e-004		0.0395	0.0395		0.0363	0.0363	0.0000	66.6394	66.6394	0.0211	0.0000	67.0822
Total	**0.0624**	**0.6390**	**0.4925**	**7.4000e-004**		**0.0395**	**0.0395**		**0.0363**	**0.0363**	**0.0000**	**66.6394**	**66.6394**	**0.0211**	**0.0000**	**67.0822**

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	0.0288	0.2794	0.4084	8.6000e-004	0.0246	4.5100e-003	0.0291	7.0200e-003	4.1500e-003	0.0112	0.0000	74.7475	74.7475	5.4000e-004	0.0000	74.7589
Worker	0.0578	0.0863	0.8958	2.6200e-003	0.2142	1.6800e-003	0.2158	0.0569	1.5600e-003	0.0584	0.0000	178.6629	178.6629	8.6600e-003	0.0000	178.8447
Total	**0.0866**	**0.3657**	**1.3042**	**3.4800e-003**	**0.2387**	**6.1900e-003**	**0.2449**	**0.0639**	**5.7100e-003**	**0.0696**	**0.0000**	**253.4103**	**253.4103**	**9.2000e-003**	**0.0000**	**253.6035**

3.4 Architectural Coating - 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	1.4939					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1514	0.1400	2.2000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	19.2771	19.2771	1.8300e-003	0.0000	19.3156
Total	**1.5165**	**0.1514**	**0.1400**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**19.2771**	**19.2771**	**1.8300e-003**	**0.0000**	**19.3156**

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	0.0146	0.0219	0.2267	6.1000e-004	0.0497	4.0000e-004	0.0501	0.0132	3.7000e-004	0.0136	0.0000	43.1049	43.1049	2.1500e-003	0.0000	43.1500
Total	**0.0146**	**0.0219**	**0.2267**	**6.1000e-004**	**0.0497**	**4.0000e-004**	**0.0501**	**0.0132**	**3.7000e-004**	**0.0136**	**0.0000**	**43.1049**	**43.1049**	**2.1500e-003**	**0.0000**	**43.1500**

3.4 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4939					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1514	0.1400	2.2000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	19.2771	19.2771	1.8300e-003	0.0000	19.3155
Total	**1.5165**	**0.1514**	**0.1400**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**19.2771**	**19.2771**	**1.8300e-003**	**0.0000**	**19.3155**

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	0.0146	0.0219	0.2267	6.1000e-004	0.0497	4.0000e-004	0.0501	0.0132	3.7000e-004	0.0136	0.0000	43.1049	43.1049	2.1500e-003	0.0000	43.1500
Total	**0.0146**	**0.0219**	**0.2267**	**6.1000e-004**	**0.0497**	**4.0000e-004**	**0.0501**	**0.0132**	**3.7000e-004**	**0.0136**	**0.0000**	**43.1049**	**43.1049**	**2.1500e-003**	**0.0000**	**43.1500**

3.4 Architectural Coating - 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	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0175	0.1202	0.1206	1.9000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	16.7238	16.7238	1.4100e-003	0.0000	16.7535
Total	**1.3135**	**0.1202**	**0.1206**	**1.9000e-004**		**8.4300e-003**	**8.4300e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**16.7238**	**16.7238**	**1.4100e-003**	**0.0000**	**16.7535**

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	0.0116	0.0174	0.1804	5.3000e-004	0.0431	3.4000e-004	0.0435	0.0115	3.1000e-004	0.0118	0.0000	35.9724	35.9724	1.7400e-003	0.0000	36.0090
Total	**0.0116**	**0.0174**	**0.1804**	**5.3000e-004**	**0.0431**	**3.4000e-004**	**0.0435**	**0.0115**	**3.1000e-004**	**0.0118**	**0.0000**	**35.9724**	**35.9724**	**1.7400e-003**	**0.0000**	**36.0090**

3.4 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0175	0.1202	0.1206	1.9000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	16.7238	16.7238	1.4100e-003	0.0000	16.7535
Total	**1.3135**	**0.1202**	**0.1206**	**1.9000e-004**		**8.4300e-003**	**8.4300e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**16.7238**	**16.7238**	**1.4100e-003**	**0.0000**	**16.7535**

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	0.0116	0.0174	0.1804	5.3000e-004	0.0431	3.4000e-004	0.0435	0.0115	3.1000e-004	0.0118	0.0000	35.9724	35.9724	1.7400e-003	0.0000	36.0090
Total	**0.0116**	**0.0174**	**0.1804**	**5.3000e-004**	**0.0431**	**3.4000e-004**	**0.0435**	**0.0115**	**3.1000e-004**	**0.0118**	**0.0000**	**35.9724**	**35.9724**	**1.7400e-003**	**0.0000**	**36.0090**

3.5 Paving - 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	0.0164	0.1548	0.1410	2.2000e-004		8.7500e-003	8.7500e-003		8.1200e-003	8.1200e-003	0.0000	18.8607	18.8607	5.3800e-003	0.0000	18.9737
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1548**	**0.1410**	**2.2000e-004**		**8.7500e-003**	**8.7500e-003**		**8.1200e-003**	**8.1200e-003**	**0.0000**	**18.8607**	**18.8607**	**5.3800e-003**	**0.0000**	**18.9737**

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	1.0700e-003	1.5900e-003	0.0165	5.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.2952	3.2952	1.6000e-004	0.0000	3.2985
Total	**1.0700e-003**	**1.5900e-003**	**0.0165**	**5.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.2952**	**3.2952**	**1.6000e-004**	**0.0000**	**3.2985**

3.5 Paving - 2019

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	0.0164	0.1548	0.1410	2.2000e-004		8.7500e-003	8.7500e-003		8.1200e-003	8.1200e-003	0.0000	18.8607	18.8607	5.3800e-003	0.0000	18.9737
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1548**	**0.1410**	**2.2000e-004**		**8.7500e-003**	**8.7500e-003**		**8.1200e-003**	**8.1200e-003**	**0.0000**	**18.8607**	**18.8607**	**5.3800e-003**	**0.0000**	**18.9737**

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	1.0700e-003	1.5900e-003	0.0165	5.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.2952	3.2952	1.6000e-004	0.0000	3.2985
Total	**1.0700e-003**	**1.5900e-003**	**0.0165**	**5.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.2952**	**3.2952**	**1.6000e-004**	**0.0000**	**3.2985**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4232	3.4284	14.1418	0.0384	2.5884	0.0526	2.6410	0.6927	0.0485	0.7412	0.0000	2,694.5396	2,694.5396	0.0987	0.0000	2,696.6132
Unmitigated	1.5017	4.0374	16.1232	0.0467	3.1678	0.0633	3.2311	0.8477	0.0584	0.9061	0.0000	3,274.4542	3,274.4542	0.1184	0.0000	3,276.9409

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,990.80	2,255.40	1912.05	6,893,591	5,632,802
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	1,114.53	1,062.66	884.65	1,464,062	1,196,296
Total	3,105.33	3,318.06	2,796.70	8,357,654	6,829,098

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	583.6066	583.6066	0.0268	5.5500e-003	585.8906
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	721.1804	721.1804	0.0332	6.8600e-003	724.0028
NaturalGas Mitigated	0.0214	0.1872	0.1099	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.6787	211.6787	4.0600e-003	3.8800e-003	212.9670
NaturalGas Unmitigated	0.0253	0.2206	0.1257	1.3800e-003		0.0175	0.0175		0.0175	0.0175	0.0000	250.1940	250.1940	4.8000e-003	4.5900e-003	251.7166

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					
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	1.5635e+006	8.4300e-003	0.0766	0.0644	4.6000e-004		5.8200e-003	5.8200e-003		5.8200e-003	5.8200e-003	0.0000	83.4342	83.4342	1.6000e-003	1.5300e-003	83.9419
Apartments High Rise	3.12496e+006	0.0169	0.1440	0.0613	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.7598	166.7598	3.2000e-003	3.0600e-003	167.7747
Total		**0.0253**	**0.2206**	**0.1257**	**1.3800e-003**		**0.0175**	**0.0175**		**0.0175**	**0.0175**	**0.0000**	**250.1940**	**250.1940**	**4.8000e-003**	**4.5900e-003**	**251.7166**

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					
High Turnover (Sit Down Restaurant)	1.48762e+006	8.0200e-003	0.0729	0.0613	4.4000e-004		5.5400e-003	5.5400e-003		5.5400e-003	5.5400e-003	0.0000	79.3853	79.3853	1.5200e-003	1.4600e-003	79.8684
Apartments High Rise	2.47909e+006	0.0134	0.1142	0.0486	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.2934	132.2934	2.5400e-003	2.4300e-003	133.0986
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0214**	**0.1872**	**0.1099**	**1.1700e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.6787**	**211.6787**	**4.0600e-003**	**3.8900e-003**	**212.9670**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.11572e+006	319.2814	0.0147	3.0400e-003	320.5309
Enclosed Parking with Elevator	1.08966e+006	311.8234	0.0143	2.9700e-003	313.0437
High Turnover (Sit Down Restaurant)	314766	90.0756	4.1400e-003	8.6000e-004	90.4282
Total		**721.1804**	**0.0332**	**6.8700e-003**	**724.0028**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	979609	280.3317	0.0129	2.6700e-003	281.4288
Enclosed Parking with Elevator	782402	223.8975	0.0103	2.1300e-003	224.7738
High Turnover (Sit Down Restaurant)	277381	79.3774	3.6500e-003	7.5000e-004	79.6880
Total		**583.6066**	**0.0268**	**5.5500e-003**	**585.8906**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4834	0.0378	3.2653	1.7000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	5.3179	5.3179	5.2100e-003	0.0000	5.4272
Unmitigated	2.5420	0.0378	3.2653	1.7000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	5.3179	5.3179	5.2100e-003	0.0000	5.4272

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	0.3375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1046					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	0.0998	0.0378	3.2653	1.7000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	5.3179	5.3179	5.2100e-003	0.0000	5.4272
Total	**2.5420**	**0.0378**	**3.2653**	**1.7000e-004**		**0.0179**	**0.0179**		**0.0179**	**0.0179**	**0.0000**	**5.3179**	**5.3179**	**5.2100e-003**	**0.0000**	**5.4272**

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	0.2790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1046					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	0.0998	0.0378	3.2653	1.7000e-004		0.0179	0.0179		0.0179	0.0179	0.0000	5.3179	5.3179	5.2100e-003	0.0000	5.4272
Total	**2.4834**	**0.0378**	**3.2653**	**1.7000e-004**		**0.0179**	**0.0179**		**0.0179**	**0.0179**	**0.0000**	**5.3179**	**5.3179**	**5.2100e-003**	**0.0000**	**5.4272**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	114.5263	0.5930	0.0149	131.5978
Unmitigated	132.7704	0.7409	0.0186	154.0806

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	20.5235 / 12.9387	124.1218	0.6742	0.0169	143.5212
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	2.03671 / 0.130003	8.6486	0.0667	1.6400e-003	10.5594
Total		**132.7704**	**0.7409**	**0.0186**	**154.0806**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	16.4188 / 12.9387	107.5247	0.5396	0.0136	123.0681
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.62937 / 0.130003	7.0016	0.0534	1.3100e-003	8.5297
Total		**114.5263**	**0.5930**	**0.0149**	**131.5978**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	45.6222	2.6962	0.0000	102.2423
Unmitigated	45.6222	2.6962	0.0000	102.2423

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	144.9	29.4134	1.7383	0.0000	65.9173
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	79.85	16.2088	0.9579	0.0000	36.3250
Total		**45.6222**	**2.6962**	**0.0000**	**102.2423**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	144.9	29.4134	1.7383	0.0000	65.9173
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	79.85	16.2088	0.9579	0.0000	36.3250
Total		**45.6222**	**2.6962**	**0.0000**	**102.2423**

9.0 Operational Offroad

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

10.0 Vegetation

Shoreline Gateway East Tower Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	458.00	Space	0.00	161,670.00	0
High Turnover (Sit Down Restaurant)	6.71	1000sqft	0.00	6,710.00	0
Apartments High Rise	315.00	Dwelling Unit	0.60	414,053.00	901

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**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 -

Land Use - total Total lot acerage for all land uses = 0.6 estimated from site plans, Residential (including common areas) SF = 414053 based on site plans

Construction Phase - Based on construction details

Off-road Equipment -

Off-road Equipment - Bore/Drill Rig added to account for pile driving activities during grading and excavation phase

Off-road Equipment -

Trips and VMT - Construction details from applicant

Grading - Total acerage = 0.6 estimated from site plans

Architectural Coating - Assumed compliance with SCAQMD Rule 1113 and 2006 EIR MM AQ-4

Vehicle Trips - Includes 5% reduction from non-auto trip adjustment in Draft TIA.

Woodstoves - Based on site plans

Area Coating - Assumed compliance with SCAQMD Rule 1113 and 2006 EIR MM AQ-4

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 and 2006 EIR MM AQ-1. SCAQMD "PM2.5 Working Group" MM resources

Mobile Land Use Mitigation - Project is TOD and infill. See PD.

Area Mitigation - Assumed compliance with SCAQMD Rule 1113

Energy Mitigation - CalEEMod only acocunts for T24 2008, compliance with T24 2013 results in a 25% improvement, CEC 2013 Building Energy Efficiency Standards FAQ. Project includes energy efficient appliances and LEDs.

Water Mitigation - Project includes low flow plumbing fixtures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstructionPhase	NumDays	5.00	282.00

tblConstructionPhase	NumDays	100.00	566.00
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	40.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/2/2019
tblConstructionPhase	PhaseEndDate	8/27/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	7/3/2019	6/2/2018
tblConstructionPhase	PhaseStartDate	7/3/2019	5/8/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	267.75	0.00
tblFireplaces	NumberNoFireplace	31.50	0.00
tblFireplaces	NumberWood	15.75	0.00
tblGrading	AcresOfGrading	0.00	0.60
tblGrading	MaterialExported	0.00	73,000.00
tblLandUse	LandUseSquareFeet	183,200.00	161,670.00
tblLandUse	LandUseSquareFeet	315,000.00	414,053.00
tblLandUse	LotAcreage	4.12	0.00
tblLandUse	LotAcreage	0.15	0.00
tblLandUse	LotAcreage	5.08	0.60
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	9,125.00	5,214.00
tblVehicleTrips	WD_TR	6.59	6.32
tblVehicleTrips	WD_TR	127.15	166.10
tblWoodstoves	NumberCatalytic	15.75	0.00
tblWoodstoves	NumberNoncatalytic	15.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.8563	30.4942	31.2555	0.0673	3.7123	1.0964	4.6712	0.9920	1.0332	1.8742	0.0000	6,662.9343	6,662.9343	0.5460	0.0000	6,674.3999
2018	22.8101	18.9201	34.1250	0.0782	4.3830	0.9597	5.3427	1.1699	0.8952	2.0650	0.0000	6,652.5338	6,652.5338	0.5779	0.0000	6,664.6698
2019	23.4082	24.8880	40.0885	0.0917	4.5842	1.2697	5.8539	1.2232	1.1821	2.4054	0.0000	7,689.4457	7,689.4457	0.8681	0.0000	7,707.6765
Total	**49.0746**	**74.3022**	**105.4690**	**0.2372**	**12.6794**	**3.3258**	**15.8678**	**3.3851**	**3.1105**	**6.3446**	**0.0000**	**21,004.9138**	**21,004.9138**	**1.9920**	**0.0000**	**21,046.7461**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.8563	30.4942	31.2555	0.0673	3.7123	1.0964	4.6712	0.9920	1.0332	1.8742	0.0000	6,662.9343	6,662.9343	0.5460	0.0000	6,674.3999
2018	22.8101	18.9201	34.1250	0.0782	4.3830	0.9597	5.3427	1.1699	0.8952	2.0650	0.0000	6,652.5338	6,652.5338	0.5779	0.0000	6,664.6698
2019	23.4082	24.8880	40.0885	0.0917	4.5842	1.2697	5.8539	1.2232	1.1821	2.4054	0.0000	7,689.4457	7,689.4457	0.8681	0.0000	7,707.6765
Total	**49.0746**	**74.3022**	**105.4690**	**0.2372**	**12.6794**	**3.3258**	**15.8678**	**3.3851**	**3.1105**	**6.3446**	**0.0000**	**21,004.9138**	**21,004.9138**	**1.9920**	**0.0000**	**21,046.7461**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.1801	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596
Energy	0.1385	1.2090	0.6885	7.5600e-003		0.0957	0.0957		0.0957	0.0957		1,511.1870	1,511.1870	0.0290	0.0277	1,520.3839
Mobile	9.2224	22.8413	96.7429	0.2944	19.5693	0.3837	19.9530	5.2290	0.3539	5.5829		22,730.1574	22,730.1574	0.7913		22,746.7747
Total	**23.5410**	**24.3523**	**123.5534**	**0.3033**	**19.5693**	**0.6229**	**20.1923**	**5.2290**	**0.5931**	**5.8221**	**0.0000**	**24,288.2402**	**24,288.2402**	**0.8662**	**0.0277**	**24,315.0182**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.8594	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596
Energy	0.1172	1.0255	0.6020	6.3900e-003		0.0810	0.0810		0.0810	0.0810		1,278.5525	1,278.5525	0.0245	0.0234	1,286.3336
Mobile	8.7337	19.4242	83.6680	0.2422	15.9902	0.3185	16.3087	4.2726	0.2938	4.5664		18,700.5436	18,700.5436	0.6596		18,714.3959
Total	**22.7103**	**20.7517**	**110.3920**	**0.2500**	**15.9902**	**0.5430**	**16.5332**	**4.2726**	**0.5183**	**4.7909**	**0.0000**	**20,025.9918**	**20,025.9918**	**0.7301**	**0.0234**	**20,048.5891**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.53**	**14.79**	**10.65**	**17.59**	**18.29**	**12.83**	**18.12**	**18.29**	**12.62**	**17.71**	**0.00**	**17.55**	**17.55**	**15.71**	**15.41**	**17.55**

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	1/1/2017	5/1/2017	5	86	
2	Building Construction	Building Construction	5/2/2017	7/2/2019	5	566	
3	Architectural Coating	Architectural Coating	6/2/2018	7/2/2019	5	282	
4	Paving	Paving	5/8/2019	7/2/2019	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 838,457; Residential Outdoor: 279,486; Non-Residential Indoor: 252,570; Non-Residential Outdoor: 84,190 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving				81	0.73
Paving				255	0.40
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	5,214.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	298.00	61.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 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	lb/day										lb/day					
Fugitive Dust					0.8562	0.0000	0.8562	0.4291	0.0000	0.4291			0.0000			0.0000
Off-Road	1.5185	15.0344	10.5748	0.0208		0.8576	0.8576		0.8135	0.8135		2,077.1114	2,077.1114	0.5070		2,087.7579
Total	**1.5185**	**15.0344**	**10.5748**	**0.0208**	**0.8562**	**0.8576**	**1.7138**	**0.4291**	**0.8135**	**1.2427**		**2,077.1114**	**2,077.1114**	**0.5070**		**2,087.7579**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9881	15.3986	11.3158	0.0447	1.0563	0.2376	1.2939	0.2893	0.2185	0.5078		4,437.0955	4,437.0955	0.0317		4,437.7609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
Total	**1.0367**	**15.4598**	**12.0789**	**0.0466**	**1.2016**	**0.2387**	**1.4404**	**0.3278**	**0.2196**	**0.5474**		**4,585.8230**	**4,585.8230**	**0.0390**		**4,586.6420**

3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2740	0.0000	0.2740	0.1373	0.0000	0.1373			0.0000			0.0000
Off-Road	1.5185	15.0344	10.5748	0.0208		0.8576	0.8576		0.8135	0.8135	0.0000	2,077.1114	2,077.1114	0.5070		2,087.7579
Total	**1.5185**	**15.0344**	**10.5748**	**0.0208**	**0.2740**	**0.8576**	**1.1316**	**0.1373**	**0.8135**	**0.9509**	**0.0000**	**2,077.1114**	**2,077.1114**	**0.5070**		**2,087.7579**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9881	15.3986	11.3158	0.0447	1.0563	0.2376	1.2939	0.2893	0.2185	0.5078		4,437.0955	4,437.0955	0.0317		4,437.7609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
Total	**1.0367**	**15.4598**	**12.0789**	**0.0466**	**1.2016**	**0.2387**	**1.4404**	**0.3278**	**0.2196**	**0.5474**		**4,585.8230**	**4,585.8230**	**0.0390**		**4,586.6420**

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	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4671	4.8237	5.7224	0.0133	0.3813	0.0768	0.4581	0.1086	0.0706	0.1792		1,309.4697	1,309.4697	9.2300e-003		1,309.6636
Worker	1.1153	1.4011	17.4936	0.0422	3.3309	0.0268	3.3577	0.8834	0.0247	0.9081		3,409.2915	3,409.2915	0.1677		3,412.8135
Total	**1.5824**	**6.2248**	**23.2160**	**0.0555**	**3.7123**	**0.1036**	**3.8158**	**0.9920**	**0.0953**	**1.0873**		**4,718.7611**	**4,718.7611**	**0.1770**		**4,722.4771**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4671	4.8237	5.7224	0.0133	0.3813	0.0768	0.4581	0.1086	0.0706	0.1792		1,309.4697	1,309.4697	9.2300e-003		1,309.6636
Worker	1.1153	1.4011	17.4936	0.0422	3.3309	0.0268	3.3577	0.8834	0.0247	0.9081		3,409.2915	3,409.2915	0.1677		3,412.8135
Total	**1.5824**	**6.2248**	**23.2160**	**0.0555**	**3.7123**	**0.1036**	**3.8158**	**0.9920**	**0.0953**	**1.0873**		**4,718.7611**	**4,718.7611**	**0.1770**		**4,722.4771**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491		1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**		**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4381	4.4296	5.4520	0.0132	0.3814	0.0724	0.4537	0.1086	0.0666	0.1752		1,287.5110	1,287.5110	9.1800e-003		1,287.7038
Worker	1.0055	1.2711	15.8947	0.0422	3.3309	0.0261	3.3570	0.8834	0.0241	0.9075		3,282.4330	3,282.4330	0.1557		3,285.7019
Total	**1.4436**	**5.7007**	**21.3466**	**0.0554**	**3.7123**	**0.0984**	**3.8107**	**0.9920**	**0.0907**	**1.0827**		**4,569.9440**	**4,569.9440**	**0.1649**		**4,573.4057**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491	0.0000	1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**	**0.0000**	**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4381	4.4296	5.4520	0.0132	0.3814	0.0724	0.4537	0.1086	0.0666	0.1752		1,287.5110	1,287.5110	9.1800e-003		1,287.7038
Worker	1.0055	1.2711	15.8947	0.0422	3.3309	0.0261	3.3570	0.8834	0.0241	0.9075		3,282.4330	3,282.4330	0.1557		3,285.7019
Total	**1.4436**	**5.7007**	**21.3466**	**0.0554**	**3.7123**	**0.0984**	**3.8107**	**0.9920**	**0.0907**	**1.0827**		**4,569.9440**	**4,569.9440**	**0.1649**		**4,573.4057**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544		1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**		**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4150	4.0864	5.2471	0.0132	0.3814	0.0687	0.4500	0.1086	0.0632	0.1718		1,262.4228	1,262.4228	9.0000e-003		1,262.6118
Worker	0.9254	1.1659	14.6080	0.0421	3.3309	0.0256	3.3566	0.8834	0.0238	0.9071		3,157.9843	3,157.9843	0.1457		3,161.0443
Total	**1.3404**	**5.2523**	**19.8551**	**0.0553**	**3.7123**	**0.0943**	**3.8066**	**0.9920**	**0.0869**	**1.0789**		**4,420.4070**	**4,420.4070**	**0.1547**		**4,423.6560**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544	0.0000	1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**	**0.0000**	**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4150	4.0864	5.2471	0.0132	0.3814	0.0687	0.4500	0.1086	0.0632	0.1718		1,262.4228	1,262.4228	9.0000e-003		1,262.6118
Worker	0.9254	1.1659	14.6080	0.0421	3.3309	0.0256	3.3566	0.8834	0.0238	0.9071		3,157.9843	3,157.9843	0.1457		3,161.0443
Total	**1.3404**	**5.2523**	**19.8551**	**0.0553**	**3.7123**	**0.0943**	**3.8066**	**0.9920**	**0.0869**	**1.0789**		**4,420.4070**	**4,420.4070**	**0.1547**		**4,423.6560**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**20.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2024	0.2559	3.2003	8.4900e-003	0.6707	5.2500e-003	0.6759	0.1779	4.8600e-003	0.1827		660.8925	660.8925	0.0313		661.5507
Total	**0.2024**	**0.2559**	**3.2003**	**8.4900e-003**	**0.6707**	**5.2500e-003**	**0.6759**	**0.1779**	**4.8600e-003**	**0.1827**		**660.8925**	**660.8925**	**0.0313**		**661.5507**

3.4 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**20.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2024	0.2559	3.2003	8.4900e-003	0.6707	5.2500e-003	0.6759	0.1779	4.8600e-003	0.1827		660.8925	660.8925	0.0313		661.5507
Total	**0.2024**	**0.2559**	**3.2003**	**8.4900e-003**	**0.6707**	**5.2500e-003**	**0.6759**	**0.1779**	**4.8600e-003**	**0.1827**		**660.8925**	**660.8925**	**0.0313**		**661.5507**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**20.0532**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1863	0.2347	2.9412	8.4700e-003	0.6707	5.1600e-003	0.6758	0.1779	4.7800e-003	0.1826		635.8358	635.8358	0.0293		636.4519
Total	**0.1863**	**0.2347**	**2.9412**	**8.4700e-003**	**0.6707**	**5.1600e-003**	**0.6758**	**0.1779**	**4.7800e-003**	**0.1826**		**635.8358**	**635.8358**	**0.0293**		**636.4519**

3.4 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**20.0532**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1863	0.2347	2.9412	8.4700e-003	0.6707	5.1600e-003	0.6758	0.1779	4.7800e-003	0.1826		635.8358	635.8358	0.0293		636.4519
Total	**0.1863**	**0.2347**	**2.9412**	**8.4700e-003**	**0.6707**	**5.1600e-003**	**0.6758**	**0.1779**	**4.7800e-003**	**0.1826**		**635.8358**	**635.8358**	**0.0293**		**636.4519**

3.5 Paving - 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	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059		1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**		**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0559	0.0704	0.8824	2.5400e-003	0.2012	1.5500e-003	0.2028	0.0534	1.4300e-003	0.0548		190.7507	190.7507	8.8000e-003		190.9356
Total	**0.0559**	**0.0704**	**0.8824**	**2.5400e-003**	**0.2012**	**1.5500e-003**	**0.2028**	**0.0534**	**1.4300e-003**	**0.0548**		**190.7507**	**190.7507**	**8.8000e-003**		**190.9356**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059	0.0000	1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**	**0.0000**	**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0559	0.0704	0.8824	2.5400e-003	0.2012	1.5500e-003	0.2028	0.0534	1.4300e-003	0.0548		190.7507	190.7507	8.8000e-003		190.9356
Total	**0.0559**	**0.0704**	**0.8824**	**2.5400e-003**	**0.2012**	**1.5500e-003**	**0.2028**	**0.0534**	**1.4300e-003**	**0.0548**		**190.7507**	**190.7507**	**8.8000e-003**		**190.9356**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.7337	19.4242	83.6680	0.2422	15.9902	0.3185	16.3087	4.2726	0.2938	4.5664		18,700.5436	18,700.5436	0.6596		18,714.3959
Unmitigated	9.2224	22.8413	96.7429	0.2944	19.5693	0.3837	19.9530	5.2290	0.3539	5.5829		22,730.1574	22,730.1574	0.7913		22,746.7747

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,990.80	2,255.40	1912.05	6,893,591	5,632,802
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	1,114.53	1,062.66	884.65	1,464,062	1,196,296
Total	3,105.33	3,318.06	2,796.70	8,357,654	6,829,098

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1172	1.0255	0.6020	6.3900e-003		0.0810	0.0810		0.0810	0.0810		1,278.5525	1,278.5525	0.0245	0.0234	1,286.3336
NaturalGas Unmitigated	0.1385	1.2090	0.6885	7.5600e-003		0.0957	0.0957		0.0957	0.0957		1,511.1870	1,511.1870	0.0290	0.0277	1,520.3839

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	4283.55	0.0462	0.4200	0.3528	2.5200e-003		0.0319	0.0319		0.0319	0.0319		503.9475	503.9475	9.6600e-003	9.2400e-003	507.0144
Apartments High Rise	8561.54	0.0923	0.7890	0.3358	5.0400e-003		0.0638	0.0638		0.0638	0.0638		1,007.2395	1,007.2395	0.0193	0.0185	1,013.3694
Total		**0.1385**	**1.2090**	**0.6885**	**7.5600e-003**		**0.0957**	**0.0957**		**0.0957**	**0.0957**		**1,511.1870**	**1,511.1870**	**0.0290**	**0.0277**	**1,520.3839**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High Turnover (Sit Down Restaurant)	4.07568	0.0440	0.3996	0.3356	2.4000e-003		0.0304	0.0304		0.0304	0.0304		479.4920	479.4920	9.1900e-003	8.7900e-003	482.4101
Apartments High Rise	6.79201	0.0733	0.6259	0.2664	4.0000e-003		0.0506	0.0506		0.0506	0.0506		799.0606	799.0606	0.0153	0.0147	803.9235
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1172**	**1.0255**	**0.6020**	**6.4000e-003**		**0.0810**	**0.0810**		**0.0810**	**0.0810**		**1,278.5525**	**1,278.5525**	**0.0245**	**0.0234**	**1,286.3336**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.8594	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596
Unmitigated	14.1801	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8495					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.5322					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	0.7985	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436		46.8957	46.8957	0.0459		47.8596
Total	**14.1801**	**0.3020**	**26.1220**	**1.3800e-003**		**0.1436**	**0.1436**		**0.1436**	**0.1436**	**0.0000**	**46.8957**	**46.8957**	**0.0459**	**0.0000**	**47.8596**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5287					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.5322					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	0.7985	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436		46.8957	46.8957	0.0459		47.8596
Total	**13.8594**	**0.3020**	**26.1220**	**1.3800e-003**		**0.1436**	**0.1436**		**0.1436**	**0.1436**	**0.0000**	**46.8957**	**46.8957**	**0.0459**	**0.0000**	**47.8596**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Shoreline Gateway East Tower Project

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	458.00	Space	0.00	161,670.00	0
High Turnover (Sit Down Restaurant)	6.71	1000sqft	0.00	6,710.00	0
Apartments High Rise	315.00	Dwelling Unit	0.60	414,053.00	901

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**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 -

Land Use - total Total lot acerage for all land uses = 0.6 estimated from site plans, Residential (including common areas) SF = 414053 based on site plans

Construction Phase - Based on construction details

Off-road Equipment -

Off-road Equipment - Bore/Drill Rig added to account for pile driving activities during grading and excavation phase

Off-road Equipment -

Trips and VMT - Construction details from applicant

Grading - Total acerage = 0.6 estimated from site plans

Architectural Coating - Assumed compliance with SCAQMD Rule 1113 and 2006 EIR MM AQ-4

Vehicle Trips - Includes 5% reduction from non-auto trip adjustment in Draft TIA.

Woodstoves - Based on site plans

Area Coating - Assumed compliance with SCAQMD Rule 1113 and 2006 EIR MM AQ-4

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 and 2006 EIR MM AQ-1. SCAQMD "PM2.5 Working Group" MM resources

Mobile Land Use Mitigation - Project is TOD and infill. See PD.

Area Mitigation - Assumed compliance with SCAQMD Rule 1113

Energy Mitigation - CalEEMod only acocunts for T24 2008, compliance with T24 2013 results in a 25% improvement, CEC 2013 Building Energy Efficiency Standards FAQ. Project includes energy efficient appliances and LEDs.

Water Mitigation - Project includes low flow plumbing fixtures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstructionPhase	NumDays	5.00	282.00

tblConstructionPhase	NumDays	100.00	566.00
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	40.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/2/2019
tblConstructionPhase	PhaseEndDate	8/27/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	7/3/2019	6/2/2018
tblConstructionPhase	PhaseStartDate	7/3/2019	5/8/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	267.75	0.00
tblFireplaces	NumberNoFireplace	31.50	0.00
tblFireplaces	NumberWood	15.75	0.00
tblGrading	AcresOfGrading	0.00	0.60
tblGrading	MaterialExported	0.00	73,000.00
tblLandUse	LandUseSquareFeet	183,200.00	161,670.00
tblLandUse	LandUseSquareFeet	315,000.00	414,053.00
tblLandUse	LotAcreage	4.12	0.00
tblLandUse	LotAcreage	0.15	0.00
tblLandUse	LotAcreage	5.08	0.60
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	9,125.00	5,214.00
tblVehicleTrips	WD_TR	6.59	6.32
tblVehicleTrips	WD_TR	127.15	166.10
tblWoodstoves	NumberCatalytic	15.75	0.00
tblWoodstoves	NumberNoncatalytic	15.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.9218	31.0567	31.0413	0.0671	3.7123	1.0969	4.6719	0.9920	1.0336	1.8749	0.0000	6,643.1307	6,643.1307	0.5464	0.0000	6,654.6054
2018	22.8701	19.1765	33.7015	0.0749	4.3830	0.9604	5.3434	1.1699	0.8958	2.0656	0.0000	6,395.7406	6,395.7406	0.5782	0.0000	6,407.8828
2019	23.4635	25.1278	39.6606	0.0882	4.5842	1.2704	5.8545	1.2232	1.1827	2.4059	0.0000	7,429.6341	7,429.6341	0.8684	0.0000	7,447.8711
Total	**49.2554**	**75.3610**	**104.4034**	**0.2303**	**12.6794**	**3.3277**	**15.8698**	**3.3851**	**3.1121**	**6.3465**	**0.0000**	**20,468.5053**	**20,468.5053**	**1.9931**	**0.0000**	**20,510.3593**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.9218	31.0567	31.0413	0.0671	3.7123	1.0969	4.6719	0.9920	1.0336	1.8749	0.0000	6,643.1307	6,643.1307	0.5464	0.0000	6,654.6054
2018	22.8701	19.1765	33.7015	0.0749	4.3830	0.9604	5.3434	1.1699	0.8958	2.0656	0.0000	6,395.7406	6,395.7406	0.5782	0.0000	6,407.8828
2019	23.4635	25.1278	39.6606	0.0882	4.5842	1.2704	5.8545	1.2232	1.1827	2.4059	0.0000	7,429.6341	7,429.6341	0.8684	0.0000	7,447.8711
Total	**49.2554**	**75.3610**	**104.4034**	**0.2303**	**12.6794**	**3.3277**	**15.8698**	**3.3851**	**3.1121**	**6.3465**	**0.0000**	**20,468.5053**	**20,468.5053**	**1.9931**	**0.0000**	**20,510.3593**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.1801	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596
Energy	0.1385	1.2090	0.6885	7.5600e-003		0.0957	0.0957		0.0957	0.0957		1,511.1870	1,511.1870	0.0290	0.0277	1,520.3839
Mobile	9.5234	23.9663	96.7372	0.2796	19.5693	0.3851	19.9544	5.2290	0.3552	5.5842		21,647.7432	21,647.7432	0.7923		21,664.3823
Total	**23.8420**	**25.4773**	**123.5478**	**0.2885**	**19.5693**	**0.6244**	**20.1937**	**5.2290**	**0.5945**	**5.8235**	**0.0000**	**23,205.8260**	**23,205.8260**	**0.8672**	**0.0277**	**23,232.6257**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.8594	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596
Energy	0.1172	1.0255	0.6020	6.3900e-003		0.0810	0.0810		0.0810	0.0810		1,278.5525	1,278.5525	0.0245	0.0234	1,286.3336
Mobile	9.0522	20.3490	85.0472	0.2301	15.9902	0.3199	16.3102	4.2726	0.2951	4.5678		17,810.7345	17,810.7345	0.6607		17,824.6086
Total	**23.0288**	**21.6766**	**111.7712**	**0.2378**	**15.9902**	**0.5445**	**16.5347**	**4.2726**	**0.5196**	**4.7923**	**0.0000**	**19,136.1827**	**19,136.1827**	**0.7311**	**0.0234**	**19,158.8018**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.41**	**14.92**	**9.53**	**17.57**	**18.29**	**12.80**	**18.12**	**18.29**	**12.59**	**17.71**	**0.00**	**17.54**	**17.54**	**15.70**	**15.41**	**17.53**

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	1/1/2017	5/1/2017	5	86	
2	Building Construction	Building Construction	5/2/2017	7/2/2019	5	566	
3	Architectural Coating	Architectural Coating	6/2/2018	7/2/2019	5	282	
4	Paving	Paving	5/8/2019	7/2/2019	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 838,457; Residential Outdoor: 279,486; Non-Residential Indoor: 252,570; Non-Residential Outdoor: 84,190 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving				81	0.73
Paving				255	0.40
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	5,214.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	298.00	61.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 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	lb/day										lb/day					
Fugitive Dust					0.8562	0.0000	0.8562	0.4291	0.0000	0.4291			0.0000			0.0000
Off-Road	1.5185	15.0344	10.5748	0.0208		0.8576	0.8576		0.8135	0.8135		2,077.1114	2,077.1114	0.5070		2,087.7579
Total	**1.5185**	**15.0344**	**10.5748**	**0.0208**	**0.8562**	**0.8576**	**1.7138**	**0.4291**	**0.8135**	**1.2427**		**2,077.1114**	**2,077.1114**	**0.5070**		**2,087.7579**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0394	15.9551	13.0481	0.0446	1.0563	0.2381	1.2944	0.2893	0.2190	0.5083		4,426.5494	4,426.5494	0.0321		4,427.2240
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
Total	**1.0890**	**16.0223**	**13.7491**	**0.0464**	**1.2016**	**0.2393**	**1.4409**	**0.3278**	**0.2201**	**0.5479**		**4,566.0193**	**4,566.0193**	**0.0394**		**4,566.8476**

3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2740	0.0000	0.2740	0.1373	0.0000	0.1373			0.0000			0.0000
Off-Road	1.5185	15.0344	10.5748	0.0208		0.8576	0.8576		0.8135	0.8135	0.0000	2,077.1114	2,077.1114	0.5070		2,087.7579
Total	**1.5185**	**15.0344**	**10.5748**	**0.0208**	**0.2740**	**0.8576**	**1.1316**	**0.1373**	**0.8135**	**0.9509**	**0.0000**	**2,077.1114**	**2,077.1114**	**0.5070**		**2,087.7579**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0394	15.9551	13.0481	0.0446	1.0563	0.2381	1.2944	0.2893	0.2190	0.5083		4,426.5494	4,426.5494	0.0321		4,427.2240
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
Total	**1.0890**	**16.0223**	**13.7491**	**0.0464**	**1.2016**	**0.2393**	**1.4409**	**0.3278**	**0.2201**	**0.5479**		**4,566.0193**	**4,566.0193**	**0.0394**		**4,566.8476**

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	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5102	4.9427	6.9331	0.0132	0.3813	0.0775	0.4589	0.1086	0.0713	0.1799		1,298.4696	1,298.4696	9.5200e-003		1,298.6696
Worker	1.1376	1.5387	16.0687	0.0395	3.3309	0.0268	3.3577	0.8834	0.0247	0.9081		3,197.0807	3,197.0807	0.1677		3,200.6027
Total	**1.6478**	**6.4813**	**23.0018**	**0.0527**	**3.7123**	**0.1043**	**3.8166**	**0.9920**	**0.0960**	**1.0880**		**4,495.5503**	**4,495.5503**	**0.1772**		**4,499.2723**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5102	4.9427	6.9331	0.0132	0.3813	0.0775	0.4589	0.1086	0.0713	0.1799		1,298.4696	1,298.4696	9.5200e-003		1,298.6696
Worker	1.1376	1.5387	16.0687	0.0395	3.3309	0.0268	3.3577	0.8834	0.0247	0.9081		3,197.0807	3,197.0807	0.1677		3,200.6027
Total	**1.6478**	**6.4813**	**23.0018**	**0.0527**	**3.7123**	**0.1043**	**3.8166**	**0.9920**	**0.0960**	**1.0880**		**4,495.5503**	**4,495.5503**	**0.1772**		**4,499.2723**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491		1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**		**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4769	4.5366	6.6530	0.0132	0.3814	0.0730	0.4544	0.1086	0.0672	0.1758		1,276.6725	1,276.6725	9.4700e-003		1,276.8715
Worker	1.0232	1.3955	14.5424	0.0395	3.3309	0.0261	3.3570	0.8834	0.0241	0.9075		3,077.6997	3,077.6997	0.1557		3,080.9687
Total	**1.5001**	**5.9320**	**21.1954**	**0.0527**	**3.7123**	**0.0991**	**3.8114**	**0.9920**	**0.0913**	**1.0833**		**4,354.3722**	**4,354.3722**	**0.1651**		**4,357.8401**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491	0.0000	1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**	**0.0000**	**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4769	4.5366	6.6530	0.0132	0.3814	0.0730	0.4544	0.1086	0.0672	0.1758		1,276.6725	1,276.6725	9.4700e-003		1,276.8715
Worker	1.0232	1.3955	14.5424	0.0395	3.3309	0.0261	3.3570	0.8834	0.0241	0.9075		3,077.6997	3,077.6997	0.1557		3,080.9687
Total	**1.5001**	**5.9320**	**21.1954**	**0.0527**	**3.7123**	**0.0991**	**3.8114**	**0.9920**	**0.0913**	**1.0833**		**4,354.3722**	**4,354.3722**	**0.1651**		**4,357.8401**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544		1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**		**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4508	4.1828	6.4344	0.0131	0.3814	0.0693	0.4507	0.1086	0.0637	0.1724		1,251.7464	1,251.7464	9.3000e-003		1,251.9418
Worker	0.9408	1.2796	13.3279	0.0394	3.3309	0.0256	3.3566	0.8834	0.0238	0.9071		2,960.5313	2,960.5313	0.1457		2,963.5913
Total	**1.3917**	**5.4624**	**19.7623**	**0.0525**	**3.7123**	**0.0949**	**3.8072**	**0.9920**	**0.0875**	**1.0795**		**4,212.2777**	**4,212.2777**	**0.1550**		**4,215.5330**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544	0.0000	1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**	**0.0000**	**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4508	4.1828	6.4344	0.0131	0.3814	0.0693	0.4507	0.1086	0.0637	0.1724		1,251.7464	1,251.7464	9.3000e-003		1,251.9418
Worker	0.9408	1.2796	13.3279	0.0394	3.3309	0.0256	3.3566	0.8834	0.0238	0.9071		2,960.5313	2,960.5313	0.1457		2,963.5913
Total	**1.3917**	**5.4624**	**19.7623**	**0.0525**	**3.7123**	**0.0949**	**3.8072**	**0.9920**	**0.0875**	**1.0795**		**4,212.2777**	**4,212.2777**	**0.1550**		**4,215.5330**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**20.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2060	0.2810	2.9280	7.9500e-003	0.6707	5.2500e-003	0.6759	0.1779	4.8600e-003	0.1827		619.6711	619.6711	0.0313		620.3293
Total	**0.2060**	**0.2810**	**2.9280**	**7.9500e-003**	**0.6707**	**5.2500e-003**	**0.6759**	**0.1779**	**4.8600e-003**	**0.1827**		**619.6711**	**619.6711**	**0.0313**		**620.3293**

3.4 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**20.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2060	0.2810	2.9280	7.9500e-003	0.6707	5.2500e-003	0.6759	0.1779	4.8600e-003	0.1827		619.6711	619.6711	0.0313		620.3293
Total	**0.2060**	**0.2810**	**2.9280**	**7.9500e-003**	**0.6707**	**5.2500e-003**	**0.6759**	**0.1779**	**4.8600e-003**	**0.1827**		**619.6711**	**619.6711**	**0.0313**		**620.3293**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**20.0532**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1894	0.2576	2.6835	7.9400e-003	0.6707	5.1600e-003	0.6758	0.1779	4.7800e-003	0.1826		596.0801	596.0801	0.0293		596.6962
Total	**0.1894**	**0.2576**	**2.6835**	**7.9400e-003**	**0.6707**	**5.1600e-003**	**0.6758**	**0.1779**	**4.7800e-003**	**0.1826**		**596.0801**	**596.0801**	**0.0293**		**596.6962**

3.4 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**20.0532**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1894	0.2576	2.6835	7.9400e-003	0.6707	5.1600e-003	0.6758	0.1779	4.7800e-003	0.1826		596.0801	596.0801	0.0293		596.6962
Total	**0.1894**	**0.2576**	**2.6835**	**7.9400e-003**	**0.6707**	**5.1600e-003**	**0.6758**	**0.1779**	**4.7800e-003**	**0.1826**		**596.0801**	**596.0801**	**0.0293**		**596.6962**

3.5 Paving - 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	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059		1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**		**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0568	0.0773	0.8050	2.3800e-003	0.2012	1.5500e-003	0.2028	0.0534	1.4300e-003	0.0548		178.8240	178.8240	8.8000e-003		179.0089
Total	**0.0568**	**0.0773**	**0.8050**	**2.3800e-003**	**0.2012**	**1.5500e-003**	**0.2028**	**0.0534**	**1.4300e-003**	**0.0548**		**178.8240**	**178.8240**	**8.8000e-003**		**179.0089**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059	0.0000	1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**	**0.0000**	**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0568	0.0773	0.8050	2.3800e-003	0.2012	1.5500e-003	0.2028	0.0534	1.4300e-003	0.0548		178.8240	178.8240	8.8000e-003		179.0089
Total	**0.0568**	**0.0773**	**0.8050**	**2.3800e-003**	**0.2012**	**1.5500e-003**	**0.2028**	**0.0534**	**1.4300e-003**	**0.0548**		**178.8240**	**178.8240**	**8.8000e-003**		**179.0089**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.0522	20.3490	85.0472	0.2301	15.9902	0.3199	16.3102	4.2726	0.2951	4.5678		17,810.7345	17,810.7345	0.6607		17,824.6086
Unmitigated	9.5234	23.9663	96.7372	0.2796	19.5693	0.3851	19.9544	5.2290	0.3552	5.5842		21,647.7432	21,647.7432	0.7923		21,664.3823

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,990.80	2,255.40	1912.05	6,893,591	5,632,802
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	1,114.53	1,062.66	884.65	1,464,062	1,196,296
Total	3,105.33	3,318.06	2,796.70	8,357,654	6,829,098

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1172	1.0255	0.6020	6.3900e-003		0.0810	0.0810		0.0810	0.0810		1,278.5525	1,278.5525	0.0245	0.0234	1,286.3336
NaturalGas Unmitigated	0.1385	1.2090	0.6885	7.5600e-003		0.0957	0.0957		0.0957	0.0957		1,511.1870	1,511.1870	0.0290	0.0277	1,520.3839

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	4283.55	0.0462	0.4200	0.3528	2.5200e-003		0.0319	0.0319		0.0319	0.0319		503.9475	503.9475	9.6600e-003	9.2400e-003	507.0144
Apartments High Rise	8561.54	0.0923	0.7890	0.3358	5.0400e-003		0.0638	0.0638		0.0638	0.0638		1,007.2395	1,007.2395	0.0193	0.0185	1,013.3694
Total		**0.1385**	**1.2090**	**0.6885**	**7.5600e-003**		**0.0957**	**0.0957**		**0.0957**	**0.0957**		**1,511.1870**	**1,511.1870**	**0.0290**	**0.0277**	**1,520.3839**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High Turnover (Sit Down Restaurant)	4.07568	0.0440	0.3996	0.3356	2.4000e-003		0.0304	0.0304		0.0304	0.0304		479.4920	479.4920	9.1900e-003	8.7900e-003	482.4101
Apartments High Rise	6.79201	0.0733	0.6259	0.2664	4.0000e-003		0.0506	0.0506		0.0506	0.0506		799.0606	799.0606	0.0153	0.0147	803.9235
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1172**	**1.0255**	**0.6020**	**6.4000e-003**		**0.0810**	**0.0810**		**0.0810**	**0.0810**		**1,278.5525**	**1,278.5525**	**0.0245**	**0.0234**	**1,286.3336**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.8594	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596
Unmitigated	14.1801	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436	0.0000	46.8957	46.8957	0.0459	0.0000	47.8596

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8495					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.5322					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	0.7985	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436		46.8957	46.8957	0.0459		47.8596
Total	**14.1801**	**0.3020**	**26.1220**	**1.3800e-003**		**0.1436**	**0.1436**		**0.1436**	**0.1436**	**0.0000**	**46.8957**	**46.8957**	**0.0459**	**0.0000**	**47.8596**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5287					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.5322					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	0.7985	0.3020	26.1220	1.3800e-003		0.1436	0.1436		0.1436	0.1436		46.8957	46.8957	0.0459		47.8596
Total	**13.8594**	**0.3020**	**26.1220**	**1.3800e-003**		**0.1436**	**0.1436**		**0.1436**	**0.1436**	**0.0000**	**46.8957**	**46.8957**	**0.0459**	**0.0000**	**47.8596**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Shoreline Gateway East Tower Project

South Coast Air Basin, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
	Diesel	No Change	0	0	No Change	0.00
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	4	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	4.00000E-002	2.71650E-001	2.60600E-001	4.20000E-004	1.98000E-002	1.98000E-002	0.00000E+000	3.60009E+001	3.60009E+001	3.24000E-003	0.00000E+000	3.60690E+001
Bore/Drill Rigs	1.34900E-002	1.96010E-001	8.56700E-002	3.80000E-004	5.63000E-003	5.18000E-003	0.00000E+000	3.48466E+001	3.48466E+001	1.06800E-002	0.00000E+000	3.50708E+001
Cement and Mortar Mixers	3.53000E-003	2.20900E-002	1.85000E-002	4.00000E-005	8.60000E-004	8.60000E-004	0.00000E+000	2.74966E+000	2.74966E+000	2.90000E-004	0.00000E+000	2.75565E+000
Concrete/Industrial Saws	2.49800E-002	1.83230E-001	1.61210E-001	2.70000E-004	1.31800E-002	1.31800E-002	0.00000E+000	2.31192E+001	2.31192E+001	2.03000E-003	0.00000E+000	2.31619E+001
Cranes	8.07700E-002	9.62540E-001	3.54360E-001	8.00000E-004	4.19200E-002	3.85700E-002	0.00000E+000	7.30067E+001	7.30067E+001	2.27000E-002	0.00000E+000	7.34834E+001
Forklifts	7.81100E-002	6.86880E-001	5.17440E-001	6.50000E-004	5.51300E-002	5.07200E-002	0.00000E+000	5.92958E+001	5.92958E+001	1.84400E-002	0.00000E+000	5.96830E+001
Pavers	4.84000E-003	5.25800E-002	4.88300E-002	8.00000E-005	2.57000E-003	2.37000E-003	0.00000E+000	7.10589E+000	7.10589E+000	2.25000E-003	0.00000E+000	7.15310E+000
Rollers	3.96000E-003	3.92200E-002	3.33800E-002	5.00000E-005	2.58000E-003	2.37000E-003	0.00000E+000	4.12267E+000	4.12267E+000	1.30000E-003	0.00000E+000	4.15006E+000
Rubber Tired Dozers	6.40000E-003	7.09100E-002	5.34300E-002	5.00000E-005	3.29000E-003	3.03000E-003	0.00000E+000	4.43731E+000	4.43731E+000	1.36000E-003	0.00000E+000	4.46586E+000
Tractors/Loaders/Backhoes	1.79580E-001	1.75942E+000	1.52276E+000	2.01000E-003	1.26390E-001	1.16280E-001	0.00000E+000	1.84350E+002	1.84350E+002	5.72600E-002	0.00000E+000	1.85552E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	4.00000E-002	2.71650E-001	2.60600E-001	4.20000E-004	1.98000E-002	1.98000E-002	0.00000E+000	3.60009E+001	3.60009E+001	3.24000E-003	0.00000E+000	3.60690E+001
Bore/Drill Rigs	1.34900E-002	1.96010E-001	8.56700E-002	3.80000E-004	5.63000E-003	5.18000E-003	0.00000E+000	3.48466E+001	3.48466E+001	1.06800E-002	0.00000E+000	3.50708E+001
Cement and Mortar Mixers	3.53000E-003	2.20900E-002	1.85000E-002	4.00000E-005	8.60000E-004	8.60000E-004	0.00000E+000	2.74965E+000	2.74965E+000	2.90000E-004	0.00000E+000	2.75565E+000
Concrete/Industrial Saws	2.49800E-002	1.83230E-001	1.61210E-001	2.70000E-004	1.31800E-002	1.31800E-002	0.00000E+000	2.31192E+001	2.31192E+001	2.03000E-003	0.00000E+000	2.31619E+001
Cranes	8.07700E-002	9.62540E-001	3.54360E-001	8.00000E-004	4.19200E-002	3.85700E-002	0.00000E+000	7.30066E+001	7.30066E+001	2.27000E-002	0.00000E+000	7.34833E+001
Forklifts	7.81100E-002	6.86880E-001	5.17440E-001	6.50000E-004	5.51300E-002	5.07200E-002	0.00000E+000	5.92957E+001	5.92957E+001	1.84400E-002	0.00000E+000	5.96829E+001
Pavers	4.84000E-003	5.25800E-002	4.88300E-002	8.00000E-005	2.57000E-003	2.37000E-003	0.00000E+000	7.10588E+000	7.10588E+000	2.25000E-003	0.00000E+000	7.15309E+000
Rollers	3.96000E-003	3.92200E-002	3.33800E-002	5.00000E-005	2.58000E-003	2.37000E-003	0.00000E+000	4.12267E+000	4.12267E+000	1.30000E-003	0.00000E+000	4.15006E+000
Rubber Tired Dozers	6.40000E-003	7.09100E-002	5.34300E-002	5.00000E-005	3.29000E-003	3.03000E-003	0.00000E+000	4.43730E+000	4.43730E+000	1.36000E-003	0.00000E+000	4.46586E+000
Tractors/Loaders/Backhoes	1.79580E-001	1.75942E+000	1.52276E+000	2.01000E-003	1.26390E-001	1.16280E-001	0.00000E+000	1.84349E+002	1.84349E+002	5.72600E-002	0.00000E+000	1.85552E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11108E-006	1.11108E-006	0.00000E+000	0.00000E+000	1.10898E-006
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14789E-006	1.14789E-006	0.00000E+000	0.00000E+000	1.42569E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.63681E-006	3.63681E-006	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.29762E-006	1.29762E-006	0.00000E+000	0.00000E+000	1.29523E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23276E-006	1.23276E-006	0.00000E+000	0.00000E+000	1.08868E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18052E-006	1.18052E-006	0.00000E+000	0.00000E+000	1.17286E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.40728E-006	1.40728E-006	0.00000E+000	0.00000E+000	1.39800E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.25362E-006	2.25362E-006	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19338E-006	1.19338E-006	0.00000E+000	0.00000E+000	1.18565E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	68.00	PM2.5 Reduction	68.00	Frequency (per day)	3.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	25.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.09	0.02	0.09	0.02	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	1.03	0.28	1.03	0.28	0.00	0.00
Grading	Fugitive Dust	0.04	0.02	0.01	0.01	0.68	0.68
Grading	Roads	0.05	0.01	0.05	0.01	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	17.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.08	19.08	19.06	19.21	19.08
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	5.23	15.09	12.29	17.71	16.96	16.95	0.00	17.71	17.71	16.61	0.00	17.71
Natural Gas	15.39	15.17	12.56	15.22	15.35	15.35	0.00	15.39	15.39	15.42	15.25	15.39
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	13.38	13.74	19.96	19.68	14.59
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Urban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
Yes	Land Use	Increase Density	4.77	525.00		
Yes	Land Use	Increase Diversity	0.07	0.27		
No	Land Use	Improve Walkability Design	0.00			
Yes	Land Use	Improve Destination Accessibility	0.20	0.00		
Yes	Land Use	Increase Transit Accessibility	0.08	0.60		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.18			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
Yes	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			

		Land Use and Site Enhancement Subtotal	0.18			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	7.70			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	15.00			
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.18			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
Yes	Use Low VOC Paint (Non-residential Interior)	150.00
Yes	Use Low VOC Paint (Non-residential Exterior)	150.00
No	% Electric Lawnmower	0.00

No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
Yes	Install High Efficiency Lighting	35.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher	Apartments High Rise	30.00
DishWasher	Apartments High Rise	15.00
Fan		50.00
Refrigerator	Apartments High Rise	15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	

Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Approved Shoreline Gateway East Tower Project

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	403.00	Space	0.00	161,200.00	0
High Turnover (Sit Down Restaurant)	6.27	1000sqft	0.00	6,270.00	0
Apartments High Rise	221.00	Dwelling Unit	0.60	221,000.00	632

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**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 -

Land Use - Ttotal lot acreage for all uses = 0. estimated from site plans

Construction Phase - Based on construction details

Off-road Equipment - Bore/drill Rig added to account for pile driving during the grading and excavation phase

Trips and VMT - Applicant details - 14 CY trucks

Grading - Total lot acerage = 0.6 estimated from site plans

Architectural Coating - Assumed compliance with SCAQMD Rule 1114 and 2006 EIR MM AQ-4

Vehicle Trips - Includes 5% reduction from non-auto trip adjustment in Draft TIA

Woodstoves - Based on site plans

Area Coating - Per SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 and 2006 EIR MM AQ-1. SCAQMD "PM2.5 Working Group" MM resources

Mobile Land Use Mitigation - Project is TOD and infill. See PD.

Area Mitigation - Assummed compliance with SCAQMD Rule 1113

Energy Mitigation - CalEEMod only accounts for T24 2008, compliance with T24 2013 results in a 25% improvement, CEC 2013 Building Energy Efficiency Standards FAQ. Project includes energy efficient appliances and LEDs.

Water Mitigation - Project includes low flow plumbing fixtures.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68

tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstructionPhase	NumDays	5.00	282.00
tblConstructionPhase	NumDays	100.00	566.00
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	40.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/2/2019
tblConstructionPhase	PhaseEndDate	8/27/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	7/3/2019	6/2/2018
tblConstructionPhase	PhaseStartDate	7/3/2019	5/8/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	187.85	0.00
tblFireplaces	NumberNoFireplace	22.10	0.00
tblFireplaces	NumberWood	11.05	0.00
tblGrading	AcresOfGrading	0.00	0.60
tblGrading	MaterialExported	0.00	73,000.00
tblLandUse	LotAcreage	3.63	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	3.56	0.60
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	9,125.00	5,214.00
tblVehicleTrips	WD_TR	6.59	6.26
tblVehicleTrips	WD_TR	127.15	166.10
tblWoodstoves	NumberCatalytic	11.05	0.00
tblWoodstoves	NumberNoncatalytic	11.05	0.00

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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					
2017	0.3164	2.7264	3.2411	7.1500e-003	0.3335	0.1233	0.4569	0.0982	0.1145	0.2127	0.0000	599.1631	599.1631	0.0495	0.0000	600.2017
2018	1.4078	2.2470	3.5218	7.6400e-003	0.4069	0.1143	0.5212	0.1089	0.1061	0.2150	0.0000	598.6664	598.6664	0.0606	0.0000	599.9387
2019	1.1171	1.2288	1.9387	4.3500e-003	0.2221	0.0620	0.2841	0.0594	0.0578	0.1172	0.0000	332.8864	332.8864	0.0365	0.0000	333.6525
Total	**2.8413**	**6.2021**	**8.7016**	**0.0191**	**0.9626**	**0.2996**	**1.2622**	**0.2665**	**0.2784**	**0.5449**	**0.0000**	**1,530.7159**	**1,530.7159**	**0.1465**	**0.0000**	**1,533.7929**

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					
2017	0.3164	2.7263	3.2411	7.1500e-003	0.5686	0.1233	0.6920	0.1525	0.1145	0.2670	0.0000	599.1630	599.1630	0.0495	0.0000	600.2016
2018	1.4078	2.2470	3.5218	7.6400e-003	0.7539	0.1143	0.8682	0.1941	0.1061	0.3001	0.0000	598.6662	598.6662	0.0606	0.0000	599.9385
2019	1.1171	1.2288	1.9387	4.3500e-003	0.4118	0.0620	0.4738	0.1060	0.0578	0.1638	0.0000	332.8862	332.8862	0.0365	0.0000	333.6524
Total	**2.8413**	**6.2021**	**8.7016**	**0.0191**	**1.7343**	**0.2996**	**2.0340**	**0.4525**	**0.2784**	**0.7309**	**0.0000**	**1,530.7154**	**1,530.7154**	**0.1465**	**0.0000**	**1,533.7925**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**-80.17**	**0.00**	**-61.14**	**-69.82**	**0.00**	**-34.15**	**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	1.7349	0.0265	2.2919	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7330	3.7330	3.6600e-003	0.0000	3.8098
Energy	0.0197	0.1726	0.1032	1.0700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	814.0493	814.0493	0.0322	9.4600e-003	817.6586
Mobile	1.1529	3.0106	12.1235	0.0345	4.3362	0.0470	4.3831	1.1162	0.0433	1.1595	0.0000	2,422.4359	2,422.4359	0.0879	0.0000	2,424.2817
Waste						0.0000	0.0000		0.0000	0.0000	35.7812	0.0000	35.7812	2.1146	0.0000	80.1880
Water						0.0000	0.0000		0.0000	0.0000	5.1719	89.9918	95.1638	0.5353	0.0134	110.5596
Total	**2.9076**	**3.2097**	**14.5186**	**0.0357**	**4.3362**	**0.0732**	**4.4093**	**1.1162**	**0.0695**	**1.1857**	**40.9532**	**3,330.2101**	**3,371.1632**	**2.7737**	**0.0229**	**3,436.4978**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6767	0.0265	2.2919	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7330	3.7330	3.6600e-003	0.0000	3.8098
Energy	0.0169	0.1483	0.0913	9.2000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	661.0912	661.0912	0.0259	7.7600e-003	664.0411
Mobile	1.0900	2.5226	10.5360	0.0279	3.4758	0.0384	3.5142	0.8947	0.0354	0.9301	0.0000	1,957.8210	1,957.8210	0.0721	0.0000	1,959.3359
Waste						0.0000	0.0000		0.0000	0.0000	35.7812	0.0000	35.7812	2.1146	0.0000	80.1880
Water						0.0000	0.0000		0.0000	0.0000	4.1376	77.8429	81.9804	0.4285	0.0108	94.3134
Total	**2.7836**	**2.6974**	**12.9193**	**0.0289**	**3.4758**	**0.0626**	**3.5384**	**0.8947**	**0.0596**	**0.9543**	**39.9188**	**2,700.4881**	**2,740.4068**	**2.6448**	**0.0185**	**2,801.6882**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.26**	**15.96**	**11.02**	**18.96**	**19.84**	**14.41**	**19.75**	**19.84**	**14.21**	**19.51**	**2.53**	**18.91**	**18.71**	**4.65**	**18.99**	**18.47**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2017	5/1/2017	5	86	
2	Building Construction	Building Construction	5/2/2017	7/2/2019	5	566	
3	Architectural Coating	Architectural Coating	6/2/2018	7/2/2019	5	282	
4	Paving	Paving	5/8/2019	7/2/2019	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 447,525; Residential Outdoor: 149,175; Non-Residential Indoor: 251,205; Non-Residential Outdoor: 83,735 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1		205	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	5,214.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	229.00	51.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 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					
Fugitive Dust					0.0368	0.0000	0.0368	0.0185	0.0000	0.0185	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0518	0.4505	0.3691	5.2000e-004		0.0312	0.0312		0.0298	0.0298	0.0000	46.1793	46.1793	9.1000e-003	0.0000	46.3704
Total	**0.0518**	**0.4505**	**0.3691**	**5.2000e-004**	**0.0368**	**0.0312**	**0.0681**	**0.0185**	**0.0298**	**0.0483**	**0.0000**	**46.1793**	**46.1793**	**9.1000e-003**	**0.0000**	**46.3704**

3.2 Grading - 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	0.0441	0.6978	0.5507	1.9200e-003	0.0447	0.0102	0.0549	0.0123	9.4100e-003	0.0217	0.0000	172.9136	172.9136	1.2400e-003	0.0000	172.9397
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	2.0100e-003	2.9700e-003	0.0309	8.0000e-005	6.1300e-003	5.0000e-005	6.1800e-003	1.6300e-003	5.0000e-005	1.6800e-003	0.0000	5.5254	5.5254	2.9000e-004	0.0000	5.5314
Total	**0.0461**	**0.7008**	**0.5816**	**2.0000e-003**	**0.0508**	**0.0103**	**0.0611**	**0.0139**	**9.4600e-003**	**0.0233**	**0.0000**	**178.4390**	**178.4390**	**1.5300e-003**	**0.0000**	**178.4711**

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					0.0236	0.0000	0.0236	0.0118	0.0000	0.0118	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0518	0.4505	0.3691	5.2000e-004		0.0312	0.0312		0.0298	0.0298	0.0000	46.1793	46.1793	9.1000e-003	0.0000	46.3703
Total	**0.0518**	**0.4505**	**0.3691**	**5.2000e-004**	**0.0236**	**0.0312**	**0.0548**	**0.0118**	**0.0298**	**0.0416**	**0.0000**	**46.1793**	**46.1793**	**9.1000e-003**	**0.0000**	**46.3703**

3.2 Grading - 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	0.0441	0.6978	0.5507	1.9200e-003	0.0784	0.0102	0.0887	0.0205	9.4100e-003	0.0300	0.0000	172.9136	172.9136	1.2400e-003	0.0000	172.9397
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	2.0100e-003	2.9700e-003	0.0309	8.0000e-005	0.0115	5.0000e-005	0.0115	2.9300e-003	5.0000e-005	2.9800e-003	0.0000	5.5254	5.5254	2.9000e-004	0.0000	5.5314
Total	**0.0461**	**0.7008**	**0.5816**	**2.0000e-003**	**0.0899**	**0.0103**	**0.1002**	**0.0235**	**9.4600e-003**	**0.0329**	**0.0000**	**178.4390**	**178.4390**	**1.5300e-003**	**0.0000**	**178.4711**

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	0.1108	1.1026	0.6994	9.9000e-004		0.0744	0.0744		0.0685	0.0685	0.0000	91.5161	91.5161	0.0280	0.0000	92.1049
Total	**0.1108**	**1.1026**	**0.6994**	**9.9000e-004**		**0.0744**	**0.0744**		**0.0685**	**0.0685**	**0.0000**	**91.5161**	**91.5161**	**0.0280**	**0.0000**	**92.1049**

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
Vendor	0.0361	0.3666	0.4900	9.6000e-004	0.0273	5.6100e-003	0.0329	7.7900e-003	5.1600e-003	0.0130	0.0000	86.1025	86.1025	6.2000e-004	0.0000	86.1155
Worker	0.0716	0.1059	1.1010	2.6800e-003	0.2186	1.7900e-003	0.2204	0.0581	1.6500e-003	0.0597	0.0000	196.9263	196.9263	0.0102	0.0000	197.1399
Total	**0.1077**	**0.4725**	**1.5911**	**3.6400e-003**	**0.2459**	**7.4000e-003**	**0.2533**	**0.0658**	**6.8100e-003**	**0.0727**	**0.0000**	**283.0288**	**283.0288**	**0.0108**	**0.0000**	**283.2554**

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	0.1108	1.1026	0.6994	9.9000e-004		0.0744	0.0744		0.0685	0.0685	0.0000	91.5160	91.5160	0.0280	0.0000	92.1048
Total	**0.1108**	**1.1026**	**0.6994**	**9.9000e-004**		**0.0744**	**0.0744**		**0.0685**	**0.0685**	**0.0000**	**91.5160**	**91.5160**	**0.0280**	**0.0000**	**92.1048**

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	0.0361	0.3666	0.4900	9.6000e-004	0.0471	5.6100e-003	0.0527	0.0127	5.1600e-003	0.0178	0.0000	86.1025	86.1025	6.2000e-004	0.0000	86.1155
Worker	0.0716	0.1059	1.1010	2.6800e-003	0.4081	1.7900e-003	0.4099	0.1046	1.6500e-003	0.1062	0.0000	196.9263	196.9263	0.0102	0.0000	197.1399
Total	**0.1077**	**0.4725**	**1.5911**	**3.6400e-003**	**0.4552**	**7.4000e-003**	**0.4626**	**0.1172**	**6.8100e-003**	**0.1240**	**0.0000**	**283.0288**	**283.0288**	**0.0108**	**0.0000**	**283.2554**

3.3 Building Construction - 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	0.1408	1.4300	1.0080	1.4800e-003		0.0921	0.0921		0.0847	0.0847	0.0000	134.9913	134.9913	0.0420	0.0000	135.8738
Total	**0.1408**	**1.4300**	**1.0080**	**1.4800e-003**		**0.0921**	**0.0921**		**0.0847**	**0.0847**	**0.0000**	**134.9913**	**134.9913**	**0.0420**	**0.0000**	**135.8738**

3.3 Building Construction - 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	0.0507	0.5047	0.7042	1.4400e-003	0.0410	7.9300e-003	0.0489	0.0117	7.2900e-003	0.0190	0.0000	126.9870	126.9870	9.2000e-004	0.0000	127.0064
Worker	0.0964	0.1441	1.4958	4.0200e-003	0.3279	2.6200e-003	0.3305	0.0871	2.4200e-003	0.0895	0.0000	284.3639	284.3639	0.0142	0.0000	284.6613
Total	**0.1471**	**0.6488**	**2.2000**	**5.4600e-003**	**0.3688**	**0.0106**	**0.3794**	**0.0988**	**9.7100e-003**	**0.1085**	**0.0000**	**411.3509**	**411.3509**	**0.0151**	**0.0000**	**411.6676**

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	0.1408	1.4300	1.0080	1.4800e-003		0.0921	0.0921		0.0847	0.0847	0.0000	134.9912	134.9912	0.0420	0.0000	135.8737
Total	**0.1408**	**1.4300**	**1.0080**	**1.4800e-003**		**0.0921**	**0.0921**		**0.0847**	**0.0847**	**0.0000**	**134.9912**	**134.9912**	**0.0420**	**0.0000**	**135.8737**

3.3 Building Construction - 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	0.0507	0.5047	0.7042	1.4400e-003	0.0707	7.9300e-003	0.0786	0.0190	7.2900e-003	0.0263	0.0000	126.9870	126.9870	9.2000e-004	0.0000	127.0064
Worker	0.0964	0.1441	1.4958	4.0200e-003	0.6121	2.6200e-003	0.6147	0.1568	2.4200e-003	0.1593	0.0000	284.3639	284.3639	0.0142	0.0000	284.6613
Total	**0.1471**	**0.6488**	**2.2000**	**5.4600e-003**	**0.6828**	**0.0106**	**0.6933**	**0.1758**	**9.7100e-003**	**0.1855**	**0.0000**	**411.3509**	**411.3509**	**0.0151**	**0.0000**	**411.6676**

3.3 Building Construction - 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	0.0624	0.6390	0.4925	7.4000e-004		0.0395	0.0395		0.0363	0.0363	0.0000	66.6395	66.6395	0.0211	0.0000	67.0822
Total	**0.0624**	**0.6390**	**0.4925**	**7.4000e-004**		**0.0395**	**0.0395**		**0.0363**	**0.0363**	**0.0000**	**66.6395**	**66.6395**	**0.0211**	**0.0000**	**67.0822**

3.3 Building Construction - 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	0.0241	0.2336	0.3415	7.2000e-004	0.0206	3.7700e-003	0.0243	5.8700e-003	3.4700e-003	9.3400e-003	0.0000	62.4938	62.4938	4.5000e-004	0.0000	62.5033
Worker	0.0444	0.0663	0.6884	2.0200e-003	0.1646	1.2900e-003	0.1659	0.0437	1.2000e-003	0.0449	0.0000	137.2946	137.2946	6.6500e-003	0.0000	137.4343
Total	**0.0685**	**0.2999**	**1.0299**	**2.7400e-003**	**0.1851**	**5.0600e-003**	**0.1902**	**0.0496**	**4.6700e-003**	**0.0542**	**0.0000**	**199.7884**	**199.7884**	**7.1000e-003**	**0.0000**	**199.9376**

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	0.0624	0.6390	0.4925	7.4000e-004		0.0395	0.0395		0.0363	0.0363	0.0000	66.6394	66.6394	0.0211	0.0000	67.0822
Total	**0.0624**	**0.6390**	**0.4925**	**7.4000e-004**		**0.0395**	**0.0395**		**0.0363**	**0.0363**	**0.0000**	**66.6394**	**66.6394**	**0.0211**	**0.0000**	**67.0822**

3.3 Building Construction - 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	0.0241	0.2336	0.3415	7.2000e-004	0.0355	3.7700e-003	0.0393	9.5300e-003	3.4700e-003	0.0130	0.0000	62.4938	62.4938	4.5000e-004	0.0000	62.5033
Worker	0.0444	0.0663	0.6884	2.0200e-003	0.3072	1.2900e-003	0.3085	0.0787	1.2000e-003	0.0799	0.0000	137.2946	137.2946	6.6500e-003	0.0000	137.4343
Total	**0.0685**	**0.2999**	**1.0299**	**2.7400e-003**	**0.3427**	**5.0600e-003**	**0.3478**	**0.0883**	**4.6700e-003**	**0.0929**	**0.0000**	**199.7884**	**199.7884**	**7.1000e-003**	**0.0000**	**199.9376**

3.4 Architectural Coating - 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	1.0863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1514	0.1400	2.2000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	19.2771	19.2771	1.8300e-003	0.0000	19.3156
Total	**1.1088**	**0.1514**	**0.1400**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**19.2771**	**19.2771**	**1.8300e-003**	**0.0000**	**19.3156**

3.4 Architectural Coating - 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	0.0112	0.0168	0.1738	4.7000e-004	0.0381	3.0000e-004	0.0384	0.0101	2.8000e-004	0.0104	0.0000	33.0471	33.0471	1.6500e-003	0.0000	33.0817
Total	**0.0112**	**0.0168**	**0.1738**	**4.7000e-004**	**0.0381**	**3.0000e-004**	**0.0384**	**0.0101**	**2.8000e-004**	**0.0104**	**0.0000**	**33.0471**	**33.0471**	**1.6500e-003**	**0.0000**	**33.0817**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1514	0.1400	2.2000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	19.2771	19.2771	1.8300e-003	0.0000	19.3155
Total	**1.1088**	**0.1514**	**0.1400**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**19.2771**	**19.2771**	**1.8300e-003**	**0.0000**	**19.3155**

3.4 Architectural Coating - 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	0.0112	0.0168	0.1738	4.7000e-004	0.0711	3.0000e-004	0.0714	0.0182	2.8000e-004	0.0185	0.0000	33.0471	33.0471	1.6500e-003	0.0000	33.0817
Total	**0.0112**	**0.0168**	**0.1738**	**4.7000e-004**	**0.0711**	**3.0000e-004**	**0.0714**	**0.0182**	**2.8000e-004**	**0.0185**	**0.0000**	**33.0471**	**33.0471**	**1.6500e-003**	**0.0000**	**33.0817**

3.4 Architectural Coating - 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	0.9424					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0175	0.1202	0.1206	1.9000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	16.7238	16.7238	1.4100e-003	0.0000	16.7535
Total	**0.9598**	**0.1202**	**0.1206**	**1.9000e-004**		**8.4300e-003**	**8.4300e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**16.7238**	**16.7238**	**1.4100e-003**	**0.0000**	**16.7535**

3.4 Architectural Coating - 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	8.9300e-003	0.0133	0.1383	4.0000e-004	0.0331	2.6000e-004	0.0333	8.7800e-003	2.4000e-004	9.0200e-003	0.0000	27.5788	27.5788	1.3400e-003	0.0000	27.6069
Total	**8.9300e-003**	**0.0133**	**0.1383**	**4.0000e-004**	**0.0331**	**2.6000e-004**	**0.0333**	**8.7800e-003**	**2.4000e-004**	**9.0200e-003**	**0.0000**	**27.5788**	**27.5788**	**1.3400e-003**	**0.0000**	**27.6069**

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	0.9424					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0175	0.1202	0.1206	1.9000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	16.7238	16.7238	1.4100e-003	0.0000	16.7535
Total	**0.9598**	**0.1202**	**0.1206**	**1.9000e-004**		**8.4300e-003**	**8.4300e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**16.7238**	**16.7238**	**1.4100e-003**	**0.0000**	**16.7535**

3.4 Architectural Coating - 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	8.9300e-003	0.0133	0.1383	4.0000e-004	0.0617	2.6000e-004	0.0620	0.0158	2.4000e-004	0.0161	0.0000	27.5788	27.5788	1.3400e-003	0.0000	27.6069
Total	**8.9300e-003**	**0.0133**	**0.1383**	**4.0000e-004**	**0.0617**	**2.6000e-004**	**0.0620**	**0.0158**	**2.4000e-004**	**0.0161**	**0.0000**	**27.5788**	**27.5788**	**1.3400e-003**	**0.0000**	**27.6069**

3.5 Paving - 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	0.0164	0.1548	0.1410	2.2000e-004		8.7500e-003	8.7500e-003		8.1200e-003	8.1200e-003	0.0000	18.8607	18.8607	5.3800e-003	0.0000	18.9737
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1548**	**0.1410**	**2.2000e-004**		**8.7500e-003**	**8.7500e-003**		**8.1200e-003**	**8.1200e-003**	**0.0000**	**18.8607**	**18.8607**	**5.3800e-003**	**0.0000**	**18.9737**

3.5 Paving - 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	1.0700e-003	1.5900e-003	0.0165	5.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.2952	3.2952	1.6000e-004	0.0000	3.2985
Total	**1.0700e-003**	**1.5900e-003**	**0.0165**	**5.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.2952**	**3.2952**	**1.6000e-004**	**0.0000**	**3.2985**

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	0.0164	0.1548	0.1410	2.2000e-004		8.7500e-003	8.7500e-003		8.1200e-003	8.1200e-003	0.0000	18.8607	18.8607	5.3800e-003	0.0000	18.9737
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1548**	**0.1410**	**2.2000e-004**		**8.7500e-003**	**8.7500e-003**		**8.1200e-003**	**8.1200e-003**	**0.0000**	**18.8607**	**18.8607**	**5.3800e-003**	**0.0000**	**18.9737**

3.5 Paving - 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	1.0700e-003	1.5900e-003	0.0165	5.0000e-005	7.3700e-003	3.0000e-005	7.4000e-003	1.8900e-003	3.0000e-005	1.9200e-003	0.0000	3.2952	3.2952	1.6000e-004	0.0000	3.2985
Total	**1.0700e-003**	**1.5900e-003**	**0.0165**	**5.0000e-005**	**7.3700e-003**	**3.0000e-005**	**7.4000e-003**	**1.8900e-003**	**3.0000e-005**	**1.9200e-003**	**0.0000**	**3.2952**	**3.2952**	**1.6000e-004**	**0.0000**	**3.2985**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0900	2.5226	10.5360	0.0279	3.4758	0.0384	3.5142	0.8947	0.0354	0.9301	0.0000	1,957.8210	1,957.8210	0.0721	0.0000	1,959.3359
Unmitigated	1.1529	3.0106	12.1235	0.0345	4.3362	0.0470	4.3831	1.1162	0.0433	1.1595	0.0000	2,422.4359	2,422.4359	0.0879	0.0000	2,424.2817

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,383.46	1,582.36	1341.47	4,804,091	3,850,888
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	1,041.45	992.98	826.64	1,368,058	1,096,615
Total	2,424.91	2,575.34	2,168.11	6,172,149	4,947,503

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	494.0961	494.0961	0.0227	4.7000e-003	496.0297
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	619.0897	619.0897	0.0285	5.8900e-003	621.5125
NaturalGas Mitigated	0.0169	0.1483	0.0913	9.2000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	166.9951	166.9951	3.2000e-003	3.0600e-003	168.0114
NaturalGas Unmitigated	0.0197	0.1726	0.1032	1.0700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	194.9596	194.9596	3.7400e-003	3.5700e-003	196.1461

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					
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	1.46097e+006	7.8800e-003	0.0716	0.0602	4.3000e-004		5.4400e-003	5.4400e-003		5.4400e-003	5.4400e-003	0.0000	77.9631	77.9631	1.4900e-003	1.4300e-003	78.4375
Apartments High Rise	2.19243e+006	0.0118	0.1010	0.0430	6.4000e-004		8.1700e-003	8.1700e-003		8.1700e-003	8.1700e-003	0.0000	116.9966	116.9966	2.2400e-003	2.1400e-003	117.7086
Total		**0.0197**	**0.1726**	**0.1032**	**1.0700e-003**		**0.0136**	**0.0136**		**0.0136**	**0.0136**	**0.0000**	**194.9596**	**194.9596**	**3.7300e-003**	**3.5700e-003**	**196.1461**

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					
High Turnover (Sit Down Restaurant)	1.39007e+006	7.5000e-003	0.0681	0.0572	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	74.1797	74.1797	1.4200e-003	1.3600e-003	74.6311
Apartments High Rise	1.73929e+006	9.3800e-003	0.0801	0.0341	5.1000e-004		6.4800e-003	6.4800e-003		6.4800e-003	6.4800e-003	0.0000	92.8154	92.8154	1.7800e-003	1.7000e-003	93.3803
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0169**	**0.1483**	**0.0913**	**9.2000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**	**0.0000**	**166.9951**	**166.9951**	**3.2000e-003**	**3.0600e-003**	**168.0114**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	782773	224.0038	0.0103	2.1300e-003	224.8804
Enclosed Parking with Elevator	1.08649e+006	310.9169	0.0143	2.9600e-003	312.1337
High Turnover (Sit Down Restaurant)	294126	84.1690	3.8700e-003	8.0000e-004	84.4984
Total		**619.0897**	**0.0285**	**5.8900e-003**	**621.5125**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	687281	196.6772	9.0400e-003	1.8700e-003	197.4469
Enclosed Parking with Elevator	780127	223.2466	0.0103	2.1200e-003	224.1203
High Turnover (Sit Down Restaurant)	259192	74.1723	3.4100e-003	7.1000e-004	74.4626
Total		**494.0961**	**0.0227**	**4.7000e-003**	**496.0298**

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	1.6767	0.0265	2.2919	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7330	3.7330	3.6600e-003	0.0000	3.8098
Unmitigated	1.7349	0.0265	2.2919	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7330	3.7330	3.6600e-003	0.0000	3.8098

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	0.2611					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4037					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	0.0701	0.0265	2.2919	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7330	3.7330	3.6600e-003	0.0000	3.8098
Total	**1.7350**	**0.0265**	**2.2919**	**1.2000e-004**		**0.0126**	**0.0126**		**0.0126**	**0.0126**	**0.0000**	**3.7330**	**3.7330**	**3.6600e-003**	**0.0000**	**3.8098**

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	0.2029					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4037					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	0.0701	0.0265	2.2919	1.2000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7330	3.7330	3.6600e-003	0.0000	3.8098
Total	**1.6767**	**0.0265**	**2.2919**	**1.2000e-004**		**0.0126**	**0.0126**		**0.0126**	**0.0126**	**0.0000**	**3.7330**	**3.7330**	**3.6600e-003**	**0.0000**	**3.8098**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	81.9804	0.4285	0.0108	94.3134
Unmitigated	95.1638	0.5353	0.0134	110.5596

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	14.399 / 9.07766	87.0823	0.4730	0.0119	100.6926
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.90316 / 0.121478	8.0815	0.0624	1.5400e-003	9.8670
Total		**95.1638**	**0.5354**	**0.0134**	**110.5596**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	11.5192 / 9.07766	75.4380	0.3786	9.5300e-003	86.3430
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.52253 / 0.121478	6.5425	0.0499	1.2300e-003	7.9704
Total		**81.9804**	**0.4285**	**0.0108**	**94.3134**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	35.7812	2.1146	0.0000	80.1880
Unmitigated	35.7812	2.1146	0.0000	80.1880

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	101.66	20.6361	1.2196	0.0000	46.2467
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	74.61	15.1452	0.8951	0.0000	33.9413
Total		**35.7812**	**2.1146**	**0.0000**	**80.1880**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	101.66	20.6361	1.2196	0.0000	46.2467
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	74.61	15.1452	0.8951	0.0000	33.9413
Total		**35.7812**	**2.1146**	**0.0000**	**80.1880**

9.0 Operational Offroad

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

10.0 Vegetation

Approved Shoreline Gateway East Tower Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	403.00	Space	0.00	161,200.00	0
High Turnover (Sit Down Restaurant)	6.27	1000sqft	0.00	6,270.00	0
Apartments High Rise	221.00	Dwelling Unit	0.60	221,000.00	632

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**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 -

Land Use - Ttotal lot acreage for all uses = 0. estimated from site plans

Construction Phase - Based on construction details

Off-road Equipment - Bore/drill Rig added to account for pile driving during the grading and excavation phase

Trips and VMT - Applicant details - 14 CY trucks

Grading - Total lot acerage = 0.6 estimated from site plans

Architectural Coating - Assumed compliance with SCAQMD Rule 1114 and 2006 EIR MM AQ-4

Vehicle Trips - Includes 5% reduction from non-auto trip adjustment in Draft TIA

Woodstoves - Based on site plans

Area Coating - Per SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 and 2006 EIR MM AQ-1. SCAQMD "PM2.5 Working Group" MM resources

Mobile Land Use Mitigation - Project is TOD and infill. See PD.

Area Mitigation - Assummed compliance with SCAQMD Rule 1113

Energy Mitigation - CalEEMod only accounts for T24 2008, compliance with T24 2013 results in a 25% improvement, CEC 2013 Building Energy Efficiency Standards FAQ. Project includes energy efficient appliances and LEDs.

Water Mitigation - Project includes low flow plumbing fixtures.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68

tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstructionPhase	NumDays	5.00	282.00
tblConstructionPhase	NumDays	100.00	566.00
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	40.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/2/2019
tblConstructionPhase	PhaseEndDate	8/27/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	7/3/2019	6/2/2018
tblConstructionPhase	PhaseStartDate	7/3/2019	5/8/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	187.85	0.00
tblFireplaces	NumberNoFireplace	22.10	0.00
tblFireplaces	NumberWood	11.05	0.00
tblGrading	AcresOfGrading	0.00	0.60
tblGrading	MaterialExported	0.00	73,000.00
tblLandUse	LotAcreage	3.63	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	3.56	0.60
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	9,125.00	5,214.00
tblVehicleTrips	WD_TR	6.59	6.26
tblVehicleTrips	WD_TR	127.15	166.10
tblWoodstoves	NumberCatalytic	11.05	0.00
tblWoodstoves	NumberNoncatalytic	11.05	0.00

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5215	25.9358	26.2669	0.0586	2.8785	0.9653	3.8186	0.7697	0.9126	1.6695	0.0000	5,769.6361	5,769.6361	0.4919	0.0000	5,779.9656
2018	17.0588	17.8399	28.8042	0.0643	3.3927	0.9406	4.3333	0.9060	0.8775	1.7835	0.0000	5,527.2317	5,527.2317	0.5330	0.0000	5,538.4257
2019	17.6830	23.8933	35.1596	0.0778	3.5939	1.2514	4.8453	0.9594	1.1652	2.1246	0.0000	6,602.9184	6,602.9184	0.8261	0.0000	6,620.2659
Total	**37.2634**	**67.6691**	**90.2307**	**0.2007**	**9.8651**	**3.1573**	**12.9972**	**2.6350**	**2.9553**	**5.5776**	**0.0000**	**17,899.7862**	**17,899.7862**	**1.8510**	**0.0000**	**17,938.6571**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5215	25.9358	26.2669	0.0586	5.3365	0.9653	6.2766	1.3730	0.9126	2.2379	0.0000	5,769.6361	5,769.6361	0.4919	0.0000	5,779.9656
2018	17.0588	17.8399	28.8042	0.0643	6.2976	0.9406	7.2382	1.6190	0.8775	2.4966	0.0000	5,527.2317	5,527.2317	0.5330	0.0000	5,538.4257
2019	17.6830	23.8933	35.1596	0.0778	6.6738	1.2514	7.9251	1.7153	1.1652	2.8805	0.0000	6,602.9184	6,602.9184	0.8261	0.0000	6,620.2659
Total	**37.2634**	**67.6691**	**90.2307**	**0.2007**	**18.3079**	**3.1573**	**21.4399**	**4.7073**	**2.9553**	**7.6150**	**0.0000**	**17,899.7862**	**17,899.7862**	**1.8510**	**0.0000**	**17,938.6571**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**-85.58**	**0.00**	**-64.96**	**-78.64**	**0.00**	**-36.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.6833	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969
Energy	0.1079	0.9460	0.5652	5.8900e-003		0.0746	0.0746		0.0746	0.0746		1,177.5682	1,177.5682	0.0226	0.0216	1,184.7347
Mobile	7.0772	17.0615	72.5587	0.2182	26.8773	0.2849	27.1622	6.9121	0.2628	7.1749		16,845.4907	16,845.4907	0.5883		16,857.8441
Total	**16.8684**	**18.2195**	**91.4593**	**0.2250**	**26.8773**	**0.4603**	**27.3375**	**6.9121**	**0.4381**	**7.3502**	**0.0000**	**18,055.9785**	**18,055.9785**	**0.6431**	**0.0216**	**18,076.1758**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.3643	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969
Energy	0.0925	0.8125	0.5005	5.0400e-003		0.0639	0.0639		0.0639	0.0639		1,008.6606	1,008.6606	0.0193	0.0185	1,014.7992
Mobile	6.6849	14.3186	62.0633	0.1763	21.5444	0.2326	21.7770	5.5406	0.2146	5.7552		13,610.8526	13,610.8526	0.4826		13,620.9866
Total	**16.1416**	**15.3431**	**80.8992**	**0.1823**	**21.5444**	**0.3972**	**21.9416**	**5.5406**	**0.3792**	**5.9198**	**0.0000**	**14,652.4329**	**14,652.4329**	**0.5342**	**0.0185**	**14,669.3827**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.31**	**15.79**	**11.55**	**19.00**	**19.84**	**13.69**	**19.74**	**19.84**	**13.45**	**19.46**	**0.00**	**18.85**	**18.85**	**16.94**	**14.36**	**18.85**

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	1/1/2017	5/1/2017	5	86	
2	Building Construction	Building Construction	5/2/2017	7/2/2019	5	566	
3	Architectural Coating	Architectural Coating	6/2/2018	7/2/2019	5	282	
4	Paving	Paving	5/8/2019	7/2/2019	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 447,525; Residential Outdoor: 149,175; Non-Residential Indoor: 251,205; Non-Residential Outdoor: 83,735 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1		205	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	5,214.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	229.00	51.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 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	lb/day										lb/day					
Fugitive Dust					0.8562	0.0000	0.8562	0.4291	0.0000	0.4291			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930		1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**0.8562**	**0.7266**	**1.5827**	**0.4291**	**0.6930**	**1.1221**		**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9881	15.3986	11.3158	0.0447	1.0563	0.2376	1.2939	0.2893	0.2185	0.5078		4,437.0955	4,437.0955	0.0317		4,437.7609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.7275	148.7275	7.3200e-003		148.8811
Total	**1.0367**	**15.4598**	**12.0789**	**0.0466**	**1.2016**	**0.2387**	**1.4404**	**0.3278**	**0.2196**	**0.5474**		**4,585.8230**	**4,585.8230**	**0.0390**		**4,586.6420**

3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5479	0.0000	0.5479	0.2746	0.0000	0.2746			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930	0.0000	1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**0.5479**	**0.7266**	**1.2745**	**0.2746**	**0.6930**	**0.9676**	**0.0000**	**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9881	15.3986	11.3158	0.0447	1.8579	0.2376	2.0955	0.4860	0.2185	0.7046		4,437.0955	4,437.0955	0.0317		4,437.7609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0611	0.7632	1.8400e-003	0.2716	1.1700e-003	0.2728	0.0695	1.0800e-003	0.0706		148.7275	148.7275	7.3200e-003		148.8811
Total	**1.0367**	**15.4598**	**12.0789**	**0.0466**	**2.1295**	**0.2387**	**2.3683**	**0.5556**	**0.2196**	**0.7752**		**4,585.8230**	**4,585.8230**	**0.0390**		**4,586.6420**

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	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3905	4.0329	4.7843	0.0111	0.3188	0.0642	0.3830	0.0908	0.0590	0.1498		1,094.8025	1,094.8025	7.7200e-003		1,094.9647
Worker	0.8570	1.0767	13.4431	0.0324	2.5597	0.0206	2.5803	0.6788	0.0190	0.6978		2,619.8918	2,619.8918	0.1289		2,622.5983
Total	**1.2476**	**5.1096**	**18.2274**	**0.0435**	**2.8785**	**0.0848**	**2.9633**	**0.7697**	**0.0780**	**0.8477**		**3,714.6943**	**3,714.6943**	**0.1366**		**3,717.5629**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3905	4.0329	4.7843	0.0111	0.5515	0.0642	0.6156	0.1479	0.0590	0.2069		1,094.8025	1,094.8025	7.7200e-003		1,094.9647
Worker	0.8570	1.0767	13.4431	0.0324	4.7850	0.0206	4.8056	1.2251	0.0190	1.2440		2,619.8918	2,619.8918	0.1289		2,622.5983
Total	**1.2476**	**5.1096**	**18.2274**	**0.0435**	**5.3364**	**0.0848**	**5.4212**	**1.3730**	**0.0780**	**1.4510**		**3,714.6943**	**3,714.6943**	**0.1366**		**3,717.5629**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491		1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**		**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3663	3.7034	4.5582	0.0111	0.3188	0.0605	0.3793	0.0908	0.0556	0.1465		1,076.4436	1,076.4436	7.6700e-003		1,076.6048
Worker	0.7727	0.9768	12.2144	0.0324	2.5597	0.0200	2.5797	0.6788	0.0186	0.6974		2,522.4065	2,522.4065	0.1196		2,524.9186
Total	**1.1390**	**4.6802**	**16.7726**	**0.0435**	**2.8785**	**0.0805**	**2.9591**	**0.7697**	**0.0742**	**0.8438**		**3,598.8502**	**3,598.8502**	**0.1273**		**3,601.5234**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491	0.0000	1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**	**0.0000**	**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3663	3.7034	4.5582	0.0111	0.5515	0.0605	0.6120	0.1479	0.0556	0.2036		1,076.4436	1,076.4436	7.6700e-003		1,076.6048
Worker	0.7727	0.9768	12.2144	0.0324	4.7850	0.0200	4.8050	1.2251	0.0186	1.2436		2,522.4065	2,522.4065	0.1196		2,524.9186
Total	**1.1390**	**4.6802**	**16.7726**	**0.0435**	**5.3365**	**0.0805**	**5.4170**	**1.3730**	**0.0742**	**1.4472**		**3,598.8502**	**3,598.8502**	**0.1273**		**3,601.5234**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544		1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**		**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3469	3.4165	4.3869	0.0110	0.3189	0.0574	0.3763	0.0908	0.0528	0.1436		1,055.4682	1,055.4682	7.5300e-003		1,055.6263
Worker	0.7112	0.8959	11.2256	0.0323	2.5597	0.0197	2.5794	0.6788	0.0183	0.6971		2,426.7731	2,426.7731	0.1120		2,429.1246
Total	**1.0581**	**4.3125**	**15.6125**	**0.0434**	**2.8785**	**0.0771**	**2.9556**	**0.7697**	**0.0711**	**0.8407**		**3,482.2413**	**3,482.2413**	**0.1195**		**3,484.7509**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544	0.0000	1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**	**0.0000**	**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3469	3.4165	4.3869	0.0110	0.5515	0.0574	0.6089	0.1479	0.0528	0.2007		1,055.4682	1,055.4682	7.5300e-003		1,055.6263
Worker	0.7112	0.8959	11.2256	0.0323	4.7850	0.0197	4.8047	1.2251	0.0183	1.2433		2,426.7731	2,426.7731	0.1120		2,429.1246
Total	**1.0581**	**4.3125**	**15.6125**	**0.0434**	**5.3365**	**0.0771**	**5.4136**	**1.3730**	**0.0711**	**1.4440**		**3,482.2413**	**3,482.2413**	**0.1195**		**3,484.7509**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**14.6860**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1552	0.1962	2.4535	6.5100e-003	0.5142	4.0300e-003	0.5182	0.1364	3.7300e-003	0.1401		506.6843	506.6843	0.0240		507.1889
Total	**0.1552**	**0.1962**	**2.4535**	**6.5100e-003**	**0.5142**	**4.0300e-003**	**0.5182**	**0.1364**	**3.7300e-003**	**0.1401**		**506.6843**	**506.6843**	**0.0240**		**507.1889**

3.4 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**14.6860**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1552	0.1962	2.4535	6.5100e-003	0.9612	4.0300e-003	0.9652	0.2461	3.7300e-003	0.2498		506.6843	506.6843	0.0240		507.1889
Total	**0.1552**	**0.1962**	**2.4535**	**6.5100e-003**	**0.9612**	**4.0300e-003**	**0.9652**	**0.2461**	**3.7300e-003**	**0.2498**		**506.6843**	**506.6843**	**0.0240**		**507.1889**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**14.6538**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1429	0.1800	2.2549	6.5000e-003	0.5142	3.9500e-003	0.5181	0.1364	3.6700e-003	0.1400		487.4741	487.4741	0.0225		487.9464
Total	**0.1429**	**0.1800**	**2.2549**	**6.5000e-003**	**0.5142**	**3.9500e-003**	**0.5181**	**0.1364**	**3.6700e-003**	**0.1400**		**487.4741**	**487.4741**	**0.0225**		**487.9464**

3.4 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**14.6538**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1429	0.1800	2.2549	6.5000e-003	0.9612	3.9500e-003	0.9651	0.2461	3.6700e-003	0.2498		487.4741	487.4741	0.0225		487.9464
Total	**0.1429**	**0.1800**	**2.2549**	**6.5000e-003**	**0.9612**	**3.9500e-003**	**0.9651**	**0.2461**	**3.6700e-003**	**0.2498**		**487.4741**	**487.4741**	**0.0225**		**487.9464**

3.5 Paving - 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	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059		1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**		**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0559	0.0704	0.8824	2.5400e-003	0.2012	1.5500e-003	0.2028	0.0534	1.4300e-003	0.0548		190.7507	190.7507	8.8000e-003		190.9356
Total	**0.0559**	**0.0704**	**0.8824**	**2.5400e-003**	**0.2012**	**1.5500e-003**	**0.2028**	**0.0534**	**1.4300e-003**	**0.0548**		**190.7507**	**190.7507**	**8.8000e-003**		**190.9356**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059	0.0000	1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**	**0.0000**	**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0559	0.0704	0.8824	2.5400e-003	0.3761	1.5500e-003	0.3777	0.0963	1.4300e-003	0.0977		190.7507	190.7507	8.8000e-003		190.9356
Total	**0.0559**	**0.0704**	**0.8824**	**2.5400e-003**	**0.3761**	**1.5500e-003**	**0.3777**	**0.0963**	**1.4300e-003**	**0.0977**		**190.7507**	**190.7507**	**8.8000e-003**		**190.9356**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.6849	14.3186	62.0633	0.1763	21.5444	0.2326	21.7770	5.5406	0.2146	5.7552		13,610.8526	13,610.8526	0.4826		13,620.9866
Unmitigated	7.0772	17.0615	72.5587	0.2182	26.8773	0.2849	27.1622	6.9121	0.2628	7.1749		16,845.4907	16,845.4907	0.5883		16,857.8441

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,383.46	1,582.36	1341.47	4,804,091	3,850,888
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	1,041.45	992.98	826.64	1,368,058	1,096,615
Total	2,424.91	2,575.34	2,168.11	6,172,149	4,947,503

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0925	0.8125	0.5005	5.0400e-003		0.0639	0.0639		0.0639	0.0639		1,008.6606	1,008.6606	0.0193	0.0185	1,014.7992
NaturalGas Unmitigated	0.1079	0.9460	0.5652	5.8900e-003		0.0746	0.0746		0.0746	0.0746		1,177.5682	1,177.5682	0.0226	0.0216	1,184.7347

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	4002.66	0.0432	0.3924	0.3296	2.3500e-003		0.0298	0.0298		0.0298	0.0298		470.9018	470.9018	9.0300e-003	8.6300e-003	473.7676
Apartments High Rise	6006.66	0.0648	0.5536	0.2356	3.5300e-003		0.0448	0.0448		0.0448	0.0448		706.6665	706.6665	0.0135	0.0130	710.9671
Total		**0.1080**	**0.9460**	**0.5652**	**5.8800e-003**		**0.0746**	**0.0746**		**0.0746**	**0.0746**		**1,177.5682**	**1,177.5682**	**0.0226**	**0.0216**	**1,184.7347**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High Turnover (Sit Down Restaurant)	3.80842	0.0411	0.3734	0.3136	2.2400e-003		0.0284	0.0284		0.0284	0.0284		448.0499	448.0499	8.5900e-003	8.2100e-003	450.7766
Apartments High Rise	4.76519	0.0514	0.4392	0.1869	2.8000e-003		0.0355	0.0355		0.0355	0.0355		560.6108	560.6108	0.0108	0.0103	564.0225
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0925**	**0.8125**	**0.5005**	**5.0400e-003**		**0.0639**	**0.0639**		**0.0639**	**0.0639**		**1,008.6606**	**1,008.6606**	**0.0193**	**0.0185**	**1,014.7992**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.3643	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969
Unmitigated	9.6833	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4306					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6917					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	0.5610	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007		32.9196	32.9196	0.0323		33.5969
Total	**9.6833**	**0.2120**	**18.3354**	**9.7000e-004**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**32.9196**	**32.9196**	**0.0323**	**0.0000**	**33.5969**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1116					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6917					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	0.5610	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007		32.9196	32.9196	0.0323		33.5969
Total	**9.3643**	**0.2120**	**18.3354**	**9.7000e-004**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**32.9196**	**32.9196**	**0.0323**	**0.0000**	**33.5969**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Approved Shoreline Gateway East Tower Project

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	403.00	Space	0.00	161,200.00	0
High Turnover (Sit Down Restaurant)	6.27	1000sqft	0.00	6,270.00	0
Apartments High Rise	221.00	Dwelling Unit	0.60	221,000.00	632

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**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 -

Land Use - Ttotal lot acreage for all uses = 0. estimated from site plans

Construction Phase - Based on construction details

Off-road Equipment - Bore/drill Rig added to account for pile driving during the grading and excavation phase

Trips and VMT - Applicant details - 14 CY trucks

Grading - Total lot acerage = 0.6 estimated from site plans

Architectural Coating - Assumed compliance with SCAQMD Rule 1114 and 2006 EIR MM AQ-4

Vehicle Trips - Includes 5% reduction from non-auto trip adjustment in Draft TIA

Woodstoves - Based on site plans

Area Coating - Per SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 and 2006 EIR MM AQ-1. SCAQMD "PM2.5 Working Group" MM resources

Mobile Land Use Mitigation - Project is TOD and infill. See PD.

Area Mitigation - Assummed compliance with SCAQMD Rule 1113

Energy Mitigation - CalEEMod only accounts for T24 2008, compliance with T24 2013 results in a 25% improvement, CEC 2013 Building Energy Efficiency Standards FAQ. Project includes energy efficient appliances and LEDs.

Water Mitigation - Project includes low flow plumbing fixtures.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	25
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	68

tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	68
tblConstructionPhase	NumDays	5.00	282.00
tblConstructionPhase	NumDays	100.00	566.00
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	40.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/2/2019
tblConstructionPhase	PhaseEndDate	8/27/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	7/3/2019	6/2/2018
tblConstructionPhase	PhaseStartDate	7/3/2019	5/8/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	187.85	0.00
tblFireplaces	NumberNoFireplace	22.10	0.00
tblFireplaces	NumberWood	11.05	0.00
tblGrading	AcresOfGrading	0.00	0.60
tblGrading	MaterialExported	0.00	73,000.00
tblLandUse	LotAcreage	3.63	0.00
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	3.56	0.60
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	9,125.00	5,214.00
tblVehicleTrips	WD_TR	6.59	6.26
tblVehicleTrips	WD_TR	127.15	166.10
tblWoodstoves	NumberCatalytic	11.05	0.00
tblWoodstoves	NumberNoncatalytic	11.05	0.00

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5747	26.4983	26.1842	0.0584	2.8785	0.9659	3.8192	0.7697	0.9131	1.6700	0.0000	5,749.8325	5,749.8325	0.4921	0.0000	5,760.1670
2018	17.1076	18.0442	28.5605	0.0618	3.3927	0.9412	4.3339	0.9060	0.8781	1.7841	0.0000	5,329.2383	5,329.2383	0.5333	0.0000	5,340.4374
2019	17.7282	24.0857	34.8936	0.0751	3.5939	1.2519	4.8458	0.9594	1.1657	2.1250	0.0000	6,399.8522	6,399.8522	0.8263	0.0000	6,417.2050
Total	**37.4104**	**68.6282**	**89.6382**	**0.1952**	**9.8651**	**3.1589**	**12.9989**	**2.6350**	**2.9568**	**5.5791**	**0.0000**	**17,478.9230**	**17,478.9230**	**1.8517**	**0.0000**	**17,517.8095**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5747	26.4983	26.1842	0.0584	5.3365	0.9659	6.2772	1.3730	0.9131	2.2385	0.0000	5,749.8325	5,749.8325	0.4921	0.0000	5,760.1670
2018	17.1076	18.0442	28.5605	0.0618	6.2976	0.9412	7.2388	1.6190	0.8781	2.4971	0.0000	5,329.2383	5,329.2383	0.5333	0.0000	5,340.4374
2019	17.7282	24.0857	34.8936	0.0751	6.6738	1.2519	7.9256	1.7153	1.1657	2.8810	0.0000	6,399.8522	6,399.8522	0.8263	0.0000	6,417.2050
Total	**37.4104**	**68.6282**	**89.6382**	**0.1952**	**18.3079**	**3.1589**	**21.4416**	**4.7073**	**2.9568**	**7.6166**	**0.0000**	**17,478.9230**	**17,478.9230**	**1.8517**	**0.0000**	**17,517.8095**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**-85.58**	**0.00**	**-64.95**	**-78.64**	**0.00**	**-36.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.6833	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969
Energy	0.1079	0.9460	0.5652	5.8900e-003		0.0746	0.0746		0.0746	0.0746		1,177.5682	1,177.5682	0.0226	0.0216	1,184.7347
Mobile	7.3152	17.8951	72.8471	0.2072	26.8773	0.2861	27.1633	6.9121	0.2639	7.1759		16,043.4564	16,043.4564	0.5891		16,055.8268
Total	**17.1064**	**19.0531**	**91.7478**	**0.2141**	**26.8773**	**0.4614**	**27.3386**	**6.9121**	**0.4392**	**7.3512**	**0.0000**	**17,253.9443**	**17,253.9443**	**0.6439**	**0.0216**	**17,274.1584**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.3643	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969
Energy	0.0925	0.8125	0.5005	5.0400e-003		0.0639	0.0639		0.0639	0.0639		1,008.6606	1,008.6606	0.0193	0.0185	1,014.7992
Mobile	6.9370	14.9915	63.4634	0.1675	21.5444	0.2338	21.7782	5.5406	0.2156	5.7562		12,963.4257	12,963.4257	0.4834		12,973.5766
Total	**16.3938**	**16.0160**	**82.2993**	**0.1735**	**21.5444**	**0.3984**	**21.9428**	**5.5406**	**0.3802**	**5.9208**	**0.0000**	**14,005.0059**	**14,005.0059**	**0.5350**	**0.0185**	**14,021.9727**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.17**	**15.94**	**10.30**	**18.97**	**19.84**	**13.66**	**19.74**	**19.84**	**13.42**	**19.46**	**0.00**	**18.83**	**18.83**	**16.92**	**14.36**	**18.83**

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	1/1/2017	5/1/2017	5	86	
2	Building Construction	Building Construction	5/2/2017	7/2/2019	5	566	
3	Architectural Coating	Architectural Coating	6/2/2018	7/2/2019	5	282	
4	Paving	Paving	5/8/2019	7/2/2019	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 447,525; Residential Outdoor: 149,175; Non-Residential Indoor: 251,205; Non-Residential Outdoor: 83,735 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1		205	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	13.00	0.00	5,214.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	229.00	51.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 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	lb/day										lb/day					
Fugitive Dust					0.8562	0.0000	0.8562	0.4291	0.0000	0.4291			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930		1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**0.8562**	**0.7266**	**1.5827**	**0.4291**	**0.6930**	**1.1221**		**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0394	15.9551	13.0481	0.0446	1.0563	0.2381	1.2944	0.2893	0.2190	0.5083		4,426.5494	4,426.5494	0.0321		4,427.2240
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.4700	139.4700	7.3200e-003		139.6236
Total	**1.0890**	**16.0223**	**13.7491**	**0.0464**	**1.2016**	**0.2393**	**1.4409**	**0.3278**	**0.2201**	**0.5479**		**4,566.0193**	**4,566.0193**	**0.0394**		**4,566.8476**

3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5479	0.0000	0.5479	0.2746	0.0000	0.2746			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930	0.0000	1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**0.5479**	**0.7266**	**1.2745**	**0.2746**	**0.6930**	**0.9676**	**0.0000**	**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0394	15.9551	13.0481	0.0446	1.8579	0.2381	2.0960	0.4860	0.2190	0.7050		4,426.5494	4,426.5494	0.0321		4,427.2240
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0496	0.0671	0.7010	1.7200e-003	0.2716	1.1700e-003	0.2728	0.0695	1.0800e-003	0.0706		139.4700	139.4700	7.3200e-003		139.6236
Total	**1.0890**	**16.0223**	**13.7491**	**0.0464**	**2.1295**	**0.2393**	**2.3688**	**0.5556**	**0.2201**	**0.7757**		**4,566.0193**	**4,566.0193**	**0.0394**		**4,566.8476**

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	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4265	4.1324	5.7965	0.0110	0.3188	0.0648	0.3836	0.0908	0.0596	0.1504		1,085.6057	1,085.6057	7.9600e-003		1,085.7729
Worker	0.8742	1.1824	12.3481	0.0304	2.5597	0.0206	2.5803	0.6788	0.0190	0.6978		2,456.8170	2,456.8170	0.1289		2,459.5236
Total	**1.3007**	**5.3148**	**18.1446**	**0.0414**	**2.8785**	**0.0854**	**2.9639**	**0.7697**	**0.0786**	**0.8483**		**3,542.4228**	**3,542.4228**	**0.1368**		**3,545.2965**

3.3 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4265	4.1324	5.7965	0.0110	0.5515	0.0648	0.6163	0.1479	0.0596	0.2075		1,085.6057	1,085.6057	7.9600e-003		1,085.7729
Worker	0.8742	1.1824	12.3481	0.0304	4.7850	0.0206	4.8056	1.2251	0.0190	1.2440		2,456.8170	2,456.8170	0.1289		2,459.5236
Total	**1.3007**	**5.3148**	**18.1446**	**0.0414**	**5.3364**	**0.0854**	**5.4218**	**1.3730**	**0.0786**	**1.4516**		**3,542.4228**	**3,542.4228**	**0.1368**		**3,545.2965**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491		1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**		**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3987	3.7929	5.5623	0.0110	0.3188	0.0611	0.3799	0.0908	0.0562	0.1470		1,067.3819	1,067.3819	7.9200e-003		1,067.5483
Worker	0.7863	1.0724	11.1752	0.0304	2.5597	0.0200	2.5797	0.6788	0.0186	0.6974		2,365.0780	2,365.0780	0.1196		2,367.5900
Total	**1.1850**	**4.8652**	**16.7375**	**0.0414**	**2.8785**	**0.0811**	**2.9596**	**0.7697**	**0.0747**	**0.8444**		**3,432.4599**	**3,432.4599**	**0.1275**		**3,435.1383**

3.3 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0786	10.9578	7.7239	0.0113		0.7055	0.7055		0.6491	0.6491	0.0000	1,140.2487	1,140.2487	0.3550		1,147.7032
Total	**1.0786**	**10.9578**	**7.7239**	**0.0113**		**0.7055**	**0.7055**		**0.6491**	**0.6491**	**0.0000**	**1,140.2487**	**1,140.2487**	**0.3550**		**1,147.7032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3987	3.7929	5.5623	0.0110	0.5515	0.0611	0.6125	0.1479	0.0562	0.2041		1,067.3819	1,067.3819	7.9200e-003		1,067.5483
Worker	0.7863	1.0724	11.1752	0.0304	4.7850	0.0200	4.8050	1.2251	0.0186	1.2436		2,365.0780	2,365.0780	0.1196		2,367.5900
Total	**1.1850**	**4.8652**	**16.7375**	**0.0414**	**5.3365**	**0.0811**	**5.4176**	**1.3730**	**0.0747**	**1.4477**		**3,432.4599**	**3,432.4599**	**0.1275**		**3,435.1383**

3.3 Building Construction - 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	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544		1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**		**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3769	3.4971	5.3796	0.0110	0.3189	0.0579	0.3768	0.0908	0.0533	0.1441		1,046.5421	1,046.5421	7.7800e-003		1,046.7054
Worker	0.7230	0.9833	10.2419	0.0303	2.5597	0.0197	2.5794	0.6788	0.0183	0.6971		2,275.0391	2,275.0391	0.1120		2,277.3906
Total	**1.0999**	**4.4804**	**15.6215**	**0.0412**	**2.8785**	**0.0776**	**2.9562**	**0.7697**	**0.0715**	**0.8412**		**3,321.5812**	**3,321.5812**	**0.1198**		**3,324.0960**

3.3 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9521	9.7557	7.5184	0.0113		0.6026	0.6026		0.5544	0.5544	0.0000	1,121.4877	1,121.4877	0.3548		1,128.9391
Total	**0.9521**	**9.7557**	**7.5184**	**0.0113**		**0.6026**	**0.6026**		**0.5544**	**0.5544**	**0.0000**	**1,121.4877**	**1,121.4877**	**0.3548**		**1,128.9391**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3769	3.4971	5.3796	0.0110	0.5515	0.0579	0.6094	0.1479	0.0533	0.2012		1,046.5421	1,046.5421	7.7800e-003		1,046.7054
Worker	0.7230	0.9833	10.2419	0.0303	4.7850	0.0197	4.8047	1.2251	0.0183	1.2433		2,275.0391	2,275.0391	0.1120		2,277.3906
Total	**1.0999**	**4.4804**	**15.6215**	**0.0412**	**5.3365**	**0.0776**	**5.4141**	**1.3730**	**0.0715**	**1.4445**		**3,321.5812**	**3,321.5812**	**0.1198**		**3,324.0960**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**14.6860**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.2154	2.2448	6.1000e-003	0.5142	4.0300e-003	0.5182	0.1364	3.7300e-003	0.1401		475.0812	475.0812	0.0240		475.5858
Total	**0.1579**	**0.2154**	**2.2448**	**6.1000e-003**	**0.5142**	**4.0300e-003**	**0.5182**	**0.1364**	**3.7300e-003**	**0.1401**		**475.0812**	**475.0812**	**0.0240**		**475.5858**

3.4 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**14.6860**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1579	0.2154	2.2448	6.1000e-003	0.9612	4.0300e-003	0.9652	0.2461	3.7300e-003	0.2498		475.0812	475.0812	0.0240		475.5858
Total	**0.1579**	**0.2154**	**2.2448**	**6.1000e-003**	**0.9612**	**4.0300e-003**	**0.9652**	**0.2461**	**3.7300e-003**	**0.2498**		**475.0812**	**475.0812**	**0.0240**		**475.5858**

3.4 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**14.6538**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1452	0.1975	2.0573	6.0900e-003	0.5142	3.9500e-003	0.5181	0.1364	3.6700e-003	0.1400		456.9948	456.9948	0.0225		457.4671
Total	**0.1452**	**0.1975**	**2.0573**	**6.0900e-003**	**0.5142**	**3.9500e-003**	**0.5181**	**0.1364**	**3.6700e-003**	**0.1400**		**456.9948**	**456.9948**	**0.0225**		**457.4671**

3.4 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.3874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**14.6538**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1452	0.1975	2.0573	6.0900e-003	0.9612	3.9500e-003	0.9651	0.2461	3.6700e-003	0.2498		456.9948	456.9948	0.0225		457.4671
Total	**0.1452**	**0.1975**	**2.0573**	**6.0900e-003**	**0.9612**	**3.9500e-003**	**0.9651**	**0.2461**	**3.6700e-003**	**0.2498**		**456.9948**	**456.9948**	**0.0225**		**457.4671**

3.5 Paving - 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	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059		1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**		**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0568	0.0773	0.8050	2.3800e-003	0.2012	1.5500e-003	0.2028	0.0534	1.4300e-003	0.0548		178.8240	178.8240	8.8000e-003		179.0089
Total	**0.0568**	**0.0773**	**0.8050**	**2.3800e-003**	**0.2012**	**1.5500e-003**	**0.2028**	**0.0534**	**1.4300e-003**	**0.0548**		**178.8240**	**178.8240**	**8.8000e-003**		**179.0089**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8203	7.7394	7.0501	0.0111		0.4374	0.4374		0.4059	0.4059	0.0000	1,039.5165	1,039.5165	0.2967		1,045.7467
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8203**	**7.7394**	**7.0501**	**0.0111**		**0.4374**	**0.4374**		**0.4059**	**0.4059**	**0.0000**	**1,039.5165**	**1,039.5165**	**0.2967**		**1,045.7467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0568	0.0773	0.8050	2.3800e-003	0.3761	1.5500e-003	0.3777	0.0963	1.4300e-003	0.0977		178.8240	178.8240	8.8000e-003		179.0089
Total	**0.0568**	**0.0773**	**0.8050**	**2.3800e-003**	**0.3761**	**1.5500e-003**	**0.3777**	**0.0963**	**1.4300e-003**	**0.0977**		**178.8240**	**178.8240**	**8.8000e-003**		**179.0089**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.9370	14.9915	63.4634	0.1675	21.5444	0.2338	21.7782	5.5406	0.2156	5.7562		12,963.4257	12,963.4257	0.4834		12,973.5766
Unmitigated	7.3152	17.8951	72.8471	0.2072	26.8773	0.2861	27.1633	6.9121	0.2639	7.1759		16,043.4564	16,043.4564	0.5891		16,055.8268

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,383.46	1,582.36	1341.47	4,804,091	3,850,888
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	1,041.45	992.98	826.64	1,368,058	1,096,615
Total	2,424.91	2,575.34	2,168.11	6,172,149	4,947,503

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0925	0.8125	0.5005	5.0400e-003		0.0639	0.0639		0.0639	0.0639		1,008.6606	1,008.6606	0.0193	0.0185	1,014.7992
NaturalGas Unmitigated	0.1079	0.9460	0.5652	5.8900e-003		0.0746	0.0746		0.0746	0.0746		1,177.5682	1,177.5682	0.0226	0.0216	1,184.7347

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	4002.66	0.0432	0.3924	0.3296	2.3500e-003		0.0298	0.0298		0.0298	0.0298		470.9018	470.9018	9.0300e-003	8.6300e-003	473.7676
Apartments High Rise	6006.66	0.0648	0.5536	0.2356	3.5300e-003		0.0448	0.0448		0.0448	0.0448		706.6665	706.6665	0.0135	0.0130	710.9671
Total		**0.1080**	**0.9460**	**0.5652**	**5.8800e-003**		**0.0746**	**0.0746**		**0.0746**	**0.0746**		**1,177.5682**	**1,177.5682**	**0.0226**	**0.0216**	**1,184.7347**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High Turnover (Sit Down Restaurant)	3.80842	0.0411	0.3734	0.3136	2.2400e-003		0.0284	0.0284		0.0284	0.0284		448.0499	448.0499	8.5900e-003	8.2100e-003	450.7766
Apartments High Rise	4.76519	0.0514	0.4392	0.1869	2.8000e-003		0.0355	0.0355		0.0355	0.0355		560.6108	560.6108	0.0108	0.0103	564.0225
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0925**	**0.8125**	**0.5005**	**5.0400e-003**		**0.0639**	**0.0639**		**0.0639**	**0.0639**		**1,008.6606**	**1,008.6606**	**0.0193**	**0.0185**	**1,014.7992**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.3643	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969
Unmitigated	9.6833	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007	0.0000	32.9196	32.9196	0.0323	0.0000	33.5969

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4306					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6917					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	0.5610	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007		32.9196	32.9196	0.0323		33.5969
Total	**9.6833**	**0.2120**	**18.3354**	**9.7000e-004**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**32.9196**	**32.9196**	**0.0323**	**0.0000**	**33.5969**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1116					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6917					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	0.5610	0.2120	18.3354	9.7000e-004		0.1007	0.1007		0.1007	0.1007		32.9196	32.9196	0.0323		33.5969
Total	**9.3643**	**0.2120**	**18.3354**	**9.7000e-004**		**0.1007**	**0.1007**		**0.1007**	**0.1007**	**0.0000**	**32.9196**	**32.9196**	**0.0323**	**0.0000**	**33.5969**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Approved Shoreline Gateway East Tower Project

South Coast Air Basin, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	4	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	4.00000E-002	2.71650E-001	2.60600E-001	4.20000E-004	1.98000E-002	1.98000E-002	0.00000E+000	3.60009E+001	3.60009E+001	3.24000E-003	0.00000E+000	3.60690E+001
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	3.53000E-003	2.20900E-002	1.85000E-002	4.00000E-005	8.60000E-004	8.60000E-004	0.00000E+000	2.74966E+000	2.74966E+000	2.90000E-004	0.00000E+000	2.75565E+000
Concrete/Industrial Saws	2.49800E-002	1.83230E-001	1.61210E-001	2.70000E-004	1.31800E-002	1.31800E-002	0.00000E+000	2.31192E+001	2.31192E+001	2.03000E-003	0.00000E+000	2.31619E+001
Cranes	8.07700E-002	9.62540E-001	3.54360E-001	8.00000E-004	4.19200E-002	3.85700E-002	0.00000E+000	7.30067E+001	7.30067E+001	2.27000E-002	0.00000E+000	7.34834E+001
Forklifts	7.81100E-002	6.86880E-001	5.17440E-001	6.50000E-004	5.51300E-002	5.07200E-002	0.00000E+000	5.92958E+001	5.92958E+001	1.84400E-002	0.00000E+000	5.96830E+001
Pavers	4.84000E-003	5.25800E-002	4.88300E-002	8.00000E-005	2.57000E-003	2.37000E-003	0.00000E+000	7.10589E+000	7.10589E+000	2.25000E-003	0.00000E+000	7.15310E+000
Rollers	3.96000E-003	3.92200E-002	3.33800E-002	5.00000E-005	2.58000E-003	2.37000E-003	0.00000E+000	4.12267E+000	4.12267E+000	1.30000E-003	0.00000E+000	4.15006E+000
Rubber Tired Dozers	6.40000E-003	7.09100E-002	5.34300E-002	5.00000E-005	3.29000E-003	3.03000E-003	0.00000E+000	4.43731E+000	4.43731E+000	1.36000E-003	0.00000E+000	4.46586E+000
Tractors/Loaders/Backhoes	1.79580E-001	1.75942E+000	1.52276E+000	2.01000E-003	1.26390E-001	1.16280E-001	0.00000E+000	1.84350E+002	1.84350E+002	5.72600E-002	0.00000E+000	1.85552E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	4.00000E-002	2.71650E-001	2.60600E-001	4.20000E-004	1.98000E-002	1.98000E-002	0.00000E+000	3.60009E+001	3.60009E+001	3.24000E-003	0.00000E+000	3.60690E+001
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	3.53000E-003	2.20900E-002	1.85000E-002	4.00000E-005	8.60000E-004	8.60000E-004	0.00000E+000	2.74965E+000	2.74965E+000	2.90000E-004	0.00000E+000	2.75565E+000
Concrete/Industrial Saws	2.49800E-002	1.83230E-001	1.61210E-001	2.70000E-004	1.31800E-002	1.31800E-002	0.00000E+000	2.31192E+001	2.31192E+001	2.03000E-003	0.00000E+000	2.31619E+001
Cranes	8.07700E-002	9.62540E-001	3.54360E-001	8.00000E-004	4.19200E-002	3.85700E-002	0.00000E+000	7.30066E+001	7.30066E+001	2.27000E-002	0.00000E+000	7.34833E+001
Forklifts	7.81100E-002	6.86880E-001	5.17440E-001	6.50000E-004	5.51300E-002	5.07200E-002	0.00000E+000	5.92957E+001	5.92957E+001	1.84400E-002	0.00000E+000	5.96829E+001
Pavers	4.84000E-003	5.25800E-002	4.88300E-002	8.00000E-005	2.57000E-003	2.37000E-003	0.00000E+000	7.10588E+000	7.10588E+000	2.25000E-003	0.00000E+000	7.15309E+000
Rollers	3.96000E-003	3.92200E-002	3.33800E-002	5.00000E-005	2.58000E-003	2.37000E-003	0.00000E+000	4.12267E+000	4.12267E+000	1.30000E-003	0.00000E+000	4.15006E+000
Rubber Tired Dozers	6.40000E-003	7.09100E-002	5.34300E-002	5.00000E-005	3.29000E-003	3.03000E-003	0.00000E+000	4.43730E+000	4.43730E+000	1.36000E-003	0.00000E+000	4.46586E+000
Tractors/Loaders/Backhoes	1.79580E-001	1.75942E+000	1.52276E+000	2.01000E-003	1.26390E-001	1.16280E-001	0.00000E+000	1.84349E+002	1.84349E+002	5.72600E-002	0.00000E+000	1.85552E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11108E-006	1.11108E-006	0.00000E+000	0.00000E+000	1.10898E-006
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.63681E-006	3.63681E-006	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.29762E-006	1.29762E-006	0.00000E+000	0.00000E+000	1.29523E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23276E-006	1.23276E-006	0.00000E+000	0.00000E+000	1.08868E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18052E-006	1.18052E-006	0.00000E+000	0.00000E+000	1.17286E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.40728E-006	1.40728E-006	0.00000E+000	0.00000E+000	1.39800E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.25362E-006	2.25362E-006	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19338E-006	1.19338E-006	0.00000E+000	0.00000E+000	1.18565E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	136.00	PM2.5 Reduction	136.00	Frequency (per day)	6.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	50.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.07	0.02	0.13	0.03	-0.87	-0.80
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.80	0.21	1.48	0.38	-0.85	-0.78
Grading	Fugitive Dust	0.04	0.02	0.02	0.01	0.36	0.36
Grading	Roads	0.05	0.01	0.09	0.02	-0.77	-0.69
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.01	0.00	-0.87	-0.80

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	22.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.19	20.19	20.20	20.20	20.19
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	5.45	16.21	13.09	19.18	18.29	18.31	0.00	19.18	19.18	17.92	0.00	19.18
Natural Gas	14.31	14.11	11.45	14.02	14.33	14.33	0.00	14.34	14.34	14.21	14.29	14.34
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	13.50	13.85	19.96	19.70	14.69
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Urban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
Yes	Land Use	Increase Density	3.32	368.00	0.00	
Yes	Land Use	Increase Diversity	0.10	0.32		
No	Land Use	Improve Walkability Design	0.00	0.00		
Yes	Land Use	Improve Destination Accessibility	0.20	0.00		
Yes	Land Use	Increase Transit Accessibility	0.08	0.60		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.20			
No	Neighborhood Enhancements	Improve Pedestrian Network	0.00			
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00			
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
Yes	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			

		Land Use and Site Enhancement Subtotal	0.20			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	7.70			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	15.00			
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.20			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
Yes	Use Low VOC Paint (Non-residential Interior)	150.00
Yes	Use Low VOC Paint (Non-residential Exterior)	150.00
No	% Electric Lawnmower	0.00

No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
Yes	Install High Efficiency Lighting	35.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher	Apartments High Rise	30.00
DishWasher	Apartments High Rise	15.00
Fan		50.00
Refrigerator	Apartments High Rise	15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	

Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions Shoreline Gateway East Tower Project

From URBEMIS 2007 Vehicle Fleet Mix Output:

Annual VMT: 6,829,098

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	46.0%	0.04	0.0184	0.04	0.0184
Light Truck < 3750 lbs	10.3%	0.05	0.00515	0.06	0.00618
Light Truck 3751-5750 lbs	23.2%	0.05	0.0116	0.06	0.01392
Med Truck 5751-8500 lbs	12.2%	0.12	0.01464	0.2	0.0244
Lite-Heavy Truck 8501-10,000 lbs	2.1%	0.12	0.00252	0.2	0.0042
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00045	0.125	0.000625
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.06	0.0006	0.05	0.0005
Heavy-Heavy Truck 33,001-60,000 lbs	2.9%	0.06	0.00174	0.05	0.00145
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	1.1%	0.09	0.00099	0.01	0.00011
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.4%	0.09	0.00036	0.125	0.0005
Total	**100.0%**		**0.05663**		**0.070435**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.4810	metric tons N2O	**149.11**	metric tons CO2e
		Project Total:	***149.11***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.
** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
*** From URBEMIS 2007 results for mobile sources

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions Shoreline Gateway East Tower Approved 221-Unit Project

From URBEMIS 2007 Vehicle Fleet Mix Output:

Annual VMT: 4,947,503

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	46.0%	0.04	0.0184	0.04	0.0184
Light Truck < 3750 lbs	10.3%	0.05	0.00515	0.06	0.00618
Light Truck 3751-5750 lbs	23.2%	0.05	0.0116	0.06	0.01392
Med Truck 5751-8500 lbs	12.2%	0.12	0.01464	0.2	0.0244
Lite-Heavy Truck 8501-10,000 lbs	2.1%	0.12	0.00252	0.2	0.0042
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00045	0.125	0.000625
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.06	0.0006	0.05	0.0005
Heavy-Heavy Truck 33,001-60,000 lbs	2.9%	0.06	0.00174	0.05	0.00145
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	1.1%	0.09	0.00099	0.01	0.00011
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.4%	0.09	0.00036	0.125	0.0005
Total	**100.0%**		**0.05663**		**0.070435**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.3485	metric tons N2O	**108.03**	metric tons CO2e
		Project Total:	***108.03***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.
** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
*** From URBEMIS 2007 results for mobile sources

Appendix C

Noise Study