

## **Appendix B**

---

### Technical Appendix for Air Quality and Greenhouse Gas Emissions

## **Appendix B.1**

---

### Air Quality and Greenhouse Gas Emissions Methodology

## **AIR QUALITY AND GREENHOUSE GAS EMISSIONS METHODOLOGY**

**Paseo Marina Project**

*Prepared by:*

**Eyestone Environmental, LLC**

**June 2018**

# Paseo Marina Project

---

## Air Quality and Greenhouse Gas Emissions Methodology

### 1. Introduction

Eyestone Environmental has been retained to conduct a comprehensive greenhouse gas (GHG) and criteria air pollutant emissions assessment for the Paseo Marina Project (the “Project”). Emissions during both construction and operation of the Project were quantified. This assessment describes the methodology used to estimate the GHG and air pollutant emissions from existing and Project conditions and describes the methodology used to quantify GHG and air pollutant emission reductions from project design features and mitigation measures.

### 2. Air Pollutant and Greenhouse Gas Emissions Methodology

The Project would result in direct emissions of criteria pollutants and direct and indirect GHG emissions generated by different types of emissions sources, including:<sup>1</sup>

- Direct Emissions:
  - Construction: emissions associated with demolition of existing uses, shoring, excavation, grading, and construction-related equipment and vehicular activity;
  - Area source: emissions associated with fireplaces, consumer products, architectural coatings, and landscape equipment;
  - Energy source (building operations): emissions associated with space heating and cooling, and water heating;

---

<sup>1</sup> Direct sources of emissions include Project-related vehicular trips and onsite combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel). Whereas, indirect sources of emissions include offsite emissions associated with purchased electricity and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater)

- Mobile source: emissions associated with vehicles accessing the project site; and
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators).
- Indirect Emissions:
  - Energy source (building operations): emissions associated with energy consumption, and lighting;
  - Solid Waste: emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
  - Water/Wastewater: emissions associated with energy used to pump, convey, deliver, and treat water.

## a. Emission Inventories

Project-related construction and operation emissions were calculated using SCAQMD's recommended California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying criteria pollutant and GHG impacts from land use projects throughout California.<sup>2</sup>

CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the USEPA AP-42 emission factors, CARB's on-road emission model (EMission FACtor model (EMFAC)) and off-road equipment emission model (Off-road Emissions Inventory Program model (OFFROAD)).

---

<sup>2</sup> See [www.caleemod.com](http://www.caleemod.com).

## (1) Construction

Construction activities would generate emissions from off-road equipment usage, on-road vehicle travel (truck hauling, vendor deliveries, and workers commuting), architectural coating, and paving. Each of these source types is discussed in more detail below. The Project's construction emissions were calculated using the SCAQMD recommended CalEEMod (Version 2016.3.1). Please refer to CalEEMod construction output files for a complete listing of construction details modeled. CalEEMod default values were used for equipment and vehicle emission factors, equipment load factors and vehicle trip lengths. It should be noted that the maximum daily emissions were predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions were compared to the SCAQMD daily regional numeric indicators. Annual emissions were calculated based on the total number of hours each piece of equipment was used and the total number of vehicular trips (i.e., worker, vendor, and haul) over the duration of construction. In accordance with the SCAQMD's guidance, GHG emissions from construction were amortized over the lifetime of the Project. The SCAQMD defines the lifetime of a project as 30 years.<sup>3</sup> Therefore, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

### *(a) Emissions from Construction Equipment*

The emission calculations associated with construction equipment are from off-road equipment engine use based on the equipment list and phase length. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel. Construction equipment emissions vary with engine model years in which newer equipment will emit fewer pollutants. As a conservative assumption, the CalEEMod model uses an emission rate for equipment which represents an average model year for available equipment within the Air Basin. CalEEMod calculates the exhaust emissions based on CARB OFFROAD methodology using the equation presented below.

#### Construction Off-Road Equipment:

$$\text{Emissions Diesel [lbs]} = (\sum_i (EF_i \times Pop_i \times AvgHP_i \times Load_i \times Activity_i)$$

Where:  $EF_i$  = Emission factor from OFFROAD (lbs/hr)  
 $Pop_i$  = Population (quantity of same equipment)

<sup>3</sup> SCAQMD, *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, 2008*.

AvgHP<sub>i</sub> = Maximum rated average horsepower (hp)  
Load<sub>i</sub> = Load Factor (dimensionless)  
Activity<sub>i</sub> = Hours of operation (hours)  
*i* = Summation index

Fugitive dust emissions from use of off-road equipment were also calculated using CalEEMod based on the types of equipment used during grading activities and based on the amount of import/export from loading or unloading dirt into haul trucks. These methods have been adapted from USEPA's AP-42 method for Western Coal Mining. As recommended by SCAQMD, the fugitive dust emissions from the grading phase are calculated using the methodology described in USEPA AP-42. PM<sub>10</sub> and PM<sub>2.5</sub> emissions from fugitive dust will be controlled by watering the construction site three times a day consistent with SCAQMD Rule 403 and were estimated to be reduced by 61 percent.

*(b) Emissions from On-Road Trips*

Construction generates on-road vehicle exhaust, evaporative, and dust emissions from personal vehicles for worker commuting, vendor deliveries, and trucks for soil and material hauling. These emissions are based on the number of trips and VMT along with emission factors from EMFAC. The emissions from mobile sources were calculated with the trip rates, trip lengths and emission factors for running from EMFAC as follows:

Construction On-Road Equipment:

Emissions pollutant (lbs) = VMT \* EF running, pollutant

Where: VMT = vehicle miles traveled (miles)

EF running,pollutant = emission factor for running emissions (lbs/VMT)

Evaporative emissions, starting and idling emissions in CalEEMod were calculated by multiplying the number of trips times the respective emission factor for each pollutant. Consistent with Project Design Feature AIR-PDF-1, off-road equipment would meet Tier 3 off-road emissions standards and the emission reduction was calculated within CalEEMod.

*(c) Emissions from Architectural Coating*

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings. CalEEMod calculates the VOC evaporative emissions from application of residential and non-residential surface coatings using the following equation:

Construction Architectural Coating Emissions:

Emissions Architectural Coatings (lbs) =  $EF_{AC} \times F \times A_{paint}$

Where:  $EF_{AC}$  = Emission Factor (lb/sf)

$A_{paint}$  = Building Surface Area (sf)

The CalEEMod tool assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage. All of the land use information provided by a metric other than square footage will be converted to square footage using the default conversions or user defined equivalence.

F = fraction of surface area [%].

The default values based on SCAQMD methods used in their coating rules are 75 percent for the interior surfaces and 25 percent for the exterior shell. Parking areas are based on 6-percent coverage.

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$$EF_{AC} = C_{VOC}/454(\text{g/lb}) \times 3.785(\text{L/gal})/180*\text{sf}$$

Where: EF = emission factor (lb/sf)

C = VOC content (g/L or gram per liter)

The emission factors for coating categories were calculated using the equation above based on default VOC content from provided by the air districts or CARB's statewide limits in CalEEMod. Architectural coating VOC emission factors are also consistent with SCAQMD Rule 1113 as discussed above.

*(d) Emissions from Paving*

CalEEMod estimates VOC off-gassing emissions associated with asphalt paving of parking lots using the following equation:

$$\text{Emissions}_{AP} (\text{lbs}) = EF_{AP} \times A_{parking}$$

Where: EF = emission factor (lb/acre)

A = area of the parking lot (acre)

Note: The Sacramento Metropolitan Air Quality Management District (SMAQMD) default emission factor is 2.62 lb/acre.

## (2) Operation

Similar to construction, the SCAQMD-recommended CalEEMod was used to calculate potential emissions generated by the Project, including area source, energy sources (electricity and natural gas), mobile source, stationary source, solid waste generation and disposal, and water usage/wastewater generation.

### (a) Area Source Emissions

Area source emissions were calculated using the CalEEMod emissions inventory model, which includes consumer products, architectural coatings, fireplaces and landscape maintenance equipment. Pollutant emissions generated by the Project were calculated using CalEEMod defaults, based upon the land uses that will be included in each project.

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. SCAQMD did an evaluation of consumer product use compared to the total square footage of buildings using data from CARB consumer product Emission Inventory. To calculate the VOC emissions from consumer product use, the following equation was used in CalEEMod:

$$\text{Emissions Consumer Products (lbs)} = \text{EF}_{\text{CP}} \times \text{Building Area}$$

Where:

$\text{EF}_{\text{CP}}$  = pounds of VOC per building square foot

The factor is  $1.98 \times 10^{-5}$  lbs/sf for SCAQMD areas.

Building Area = the total square footage of all buildings including residential square footage

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. The operational emission methodology from architecture coating is the same as the construction methodology discussed above. All land

use buildings are assumed to be repainted at a rate of 10 percent of area per year. This is based on the assumptions used by SCAQMD.

GHG emissions associated with natural gas fired fireplaces are calculated using emission factors from the California Climate Action Registry (CCAR). The criteria pollutant emission factors are based on AP-42. Annual fireplace usage was calculated based on CalEEMod specific usage rates within Los Angeles County. Criteria pollutant emissions from natural gas fireplaces/stoves are computed by CalEEMod in a similar manner with emission factors also coming from AP-42.<sup>4</sup> Project Design Feature GHG-PDF-2 prohibits the use of natural gas-fueled fireplaces in the proposed residential units.

The combustion of fossil fuels to operate landscape equipment such as lawnmowers and trimmers, results in pollutant emissions. The emissions occur on-site and are considered a direct source of pollutant emissions. The emissions for landscaping equipment are based on the size of the land uses, the pollutant emission factors for fuel combustion. Pollutant emissions from landscaping equipment are generally calculated in CalEEMod as follows:

#### Landscape Equipment:

$$\text{Landscaping Equipment Emissions [lbs]} = (\sum_i (\text{Units} \times \text{EF}_{LE} \times A_{LE})_i )$$

Where: Units = Number of land use units (same land use type) [1,000 sf]

$\text{EF}_{LE}$  = Emission factor [grams (g)/1,000 sfday]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

#### *(b) Energy Emissions (Electricity and Natural Gas)*

Pollutant emissions are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits pollutant emissions directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. Pollutant emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the

---

<sup>4</sup> USEPA. 1998. AP-42 Emission Factors. Chapter 1.4 Natural Gas Combustion, Pages 5-6, Tables 1.4-1 and 1.4-2, <http://www.epa.gov/ttnchie1/ap42/ch01/final/c01s04.pdf>.

electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

Energy demand emissions were calculated using the CalEEMod emissions inventory model. Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 Building Energy Efficiency Standards (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

Consistent with Table IV.M-1 and Table IV.M-2 in Section IV.M, Energy Conservation and Infrastructure, of this Draft EIR, CalEEMod energy demand is based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) study.<sup>5</sup> The data is specific for climate zones and, therefore, Zone 11 was selected for the Project Site based on the ZIP Code tool. Since these studies are based on older buildings, adjustments have been made to account for changes to the 2016 Title 24 building codes. For the Project scenario, an adjustment was made to account for the 2016 Title 24 standards. New building construction subject to 2016 Title 24 standards are anticipated to be 28 percent more efficient (for electricity) than residential construction built to the 2013 Title 24 standards and 5 percent more efficient (for electricity) for non-residential construction.<sup>6</sup>

#### *(i) Electricity*

Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves, and not individual buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, state, and federal control measures, which can be considered to be the maximum feasible level of mitigation for stack emissions. In contrast, GHG emissions from power plants are not subject to stationary source permitting requirements to the same degree as criteria pollutants. As such, GHGs emitted by power plants may be indirectly attributed to individual buildings and electricity users, who have the greatest ability to decrease usage by applying mitigation measures to individual electricity “end uses.” CalEEMod therefore calculates GHG

---

<sup>5</sup> CEC, *Commercial End-Use Survey*, March 2006.

<sup>6</sup> CEC, *Adoption Hearing, 2016 Building Energy Efficiency Standards*.

emissions (but not criteria pollutant emissions) from regional power plants associated with building electricity use.

Emissions associated with electricity demand are based on the size of the residential, commercial and retail land uses, the electrical demand factors for the land uses, the emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions in units of MTCO<sub>2</sub>e are calculated as follows:

Electricity:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_E \times EF_E \times GWP)_i) \div 2,204.62$$

Where: Units = Number of land use units (same land use type) [1,000 sf]  
D<sub>E</sub> = Electrical demand factor [megawatt-hour (MWh)/1,000 sf/yr]  
EF<sub>E</sub> = GHG emission factor [pounds per megawatt-hour (MWh)]  
GWP = Global warming potential [CO<sub>2</sub> = 1, CH<sub>4</sub> = 21, N<sub>2</sub>O = 310]  
2,204.62 = Conversion factor [pounds/MT]  
*i* = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

GHG emissions from electricity use are directly dependent on the electricity utility provider. The Los Angeles Department of Water and Power (LADWP) provides electric service to the Project Site. Thus, GHG intensity factors for LADWP were selected in CalEEMod. Intensity factors for GHGs due to electrical generation to serve the electrical demands of the existing condition were obtained from the LAWDP 2016 Power Integrated Resource Plan, which provides a CO<sub>2</sub> intensity of 1,094 pounds of CO<sub>2</sub> per MWh. Currently, LADWP provides 29 percent of electricity via renewable sources.<sup>7</sup> By 2020, LADWP is expecting to meet the State's Renewables Portfolio Standard of at least 33 percent of electricity via renewable sources and achieve a CO<sub>2</sub> intensity of 840 pounds of CO<sub>2</sub> per MWh. Emission factors for CH<sub>4</sub> and N<sub>2</sub>O were obtained from the CalEEMod.

---

<sup>7</sup> California Energy Commission, Utility Annual Power Content Labels for 2016, [www.energy.ca.gov/pcl/labels/](http://www.energy.ca.gov/pcl/labels/).

*(ii) Natural Gas*

The direct source emissions associated with natural gas combustion are based on the size of the land uses and the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu). Natural gas emissions are calculated in CalEEMod as follows:

**Natural Gas:**

$$\text{Natural Gas Emissions (lbs)} = (\sum_i (\text{Units} \times D_{NG} \times EF_{NG})_i)$$

Where: Units = Number of land use units (same land use type) [1,000 sf]  
 $D_{NG}$  = Natural Gas combustion factor [MMBtu/1,000 sf]  
 $EF_{NG}$  = Natural Gas combustion factor [pounds/MMBtu]  
 $i$  = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

*(c) Mobile Source Emissions*

Mobile-source emissions were calculated using the CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and vehicle miles traveled (VMT). CalEEMod calculates VMT based on the type of land use, trip purpose, trip type percentages for each land use subtype in the project (primary, diverted, and pass-by). The model assumes that diverted trips are assumed to be 25 percent of the primary trip lengths and pass-by trips are assumed to be 0.1 mile in length and are a result of no diversion from the primary route. The Los Angeles County urban primary trip distance was selected for this analysis. Modeling was also conducted using the Los Angeles County vehicle fleet mix for all vehicle types as provided in EMFAC2014.

Mobile source emissions were generally calculated in CalEEMod as follows:

**Mobile:**

$$\text{Mobile Emissions [lbs]} = (\sum_i (\text{Units} \times \text{ADT} \times D_{\text{TRIP}} \times EF_i))$$

Where: Units = Number of vehicles (same vehicle model year and class)  
 ADT = Average daily trip rate [trips/day]  
 $D_{\text{TRIP}}$  = Trip distance [miles/trip]  
 EF = Pollutant emission factor [pounds per mile]  
 $i$  = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

Mobile source operational emissions were calculated based on the Project trip-generation estimates provided by Linscott, Law, and Greenspan, Engineers.<sup>8</sup> As discussed in Section IV.J, Traffic, Access, and Parking, of this Draft EIR, to calculate daily trips, the number of residential units and amount of building area for the commercial (retail/restaurant) uses were multiplied by the applicable trip-generation rates based on the Institute of Transportation Engineers (ITE)'s *Trip Generation, 9th Edition*. Please refer to the CalEEMod output files for calculation of this reduction in GHG emissions. In addition, Project Design Feature GHG-PDF-3 would require 20 percent of the total code-required parking spaces be capable of supporting future electric vehicle supply equipment (EVSE) and Project Design Feature GHG-PDF-4 would require 5 percent of the total code-required parking spaces with EV charging stations and/or outlets for plugin. The Draft EIR conservatively does not include reductions from of GHG missions from mobile sources from implementation of Project Design Feature GHG-PDF-3 and GHG-PDF-4.

The Project design also includes characteristics that would reduce trips and VMT as compared to a standard project within the air basin as measured by the air quality model (CalEEMod). The Project represents an infill development within an existing urbanized area that would concentrate new residential and commercial (retail/restaurant) uses within a High Quality Transit Area (HQTA). The Project Site is located approximately 0.25-mile from several Los Angeles County Metropolitan Transit Authority (Metro), Los Angeles Department of Transportation (LADOT) Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes. The Project would also provide bicycle storage areas for residents, employees, and visitors. Project characteristics that would reduce trips

---

<sup>8</sup> Linscott, Law, and Greenspan, Engineers, *Transportation Impact Study: Paseo Marina Project, October 2017*.

and VMT in comparison to a standard project within the air basin as measured by CalEEMod were provided in the CalEEMod output files.

*(d) Stationary Source Emissions (Emergency Generator)*

Emissions of GHGs associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes. Annual emergency generator GHG emissions in units of MTCO<sub>2</sub>e were calculated as follows:

Emergency Generator:

$$\text{Emissions [lbs]} = (\text{Total HP} \times \text{LF} \times \text{HR} \times \text{EF})$$

Where: Total HP = Total horsepower of emergency generators (Hp)

LF = Load Factor (CalEEMod default of 0.73)

HR = Hours Operated per Year

EF = AP-42 Emission Factor of 1.16 lb/hp-hr)

*(e) Solid Waste Emissions*

The generation of municipal solid waste (MSW) from day-to-day operational activities generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO<sub>2</sub> and CH<sub>4</sub> from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the retail and restaurant land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of MTCO<sub>2</sub>e were calculated in CalEEMod as follows:

**Solid Waste:**

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_{MSW} \times EF_{MSW} \times GWP)_i) \div 1.1023$$

Where: Units = Number of land use units (same land use type) [1,000 sf]

D<sub>MSW</sub> = Waste disposal rate [tons/1,000 sf/yr]

EF<sub>MSW</sub> = GHG emission factor [tons/ton waste]

GWP = Global warming potential [CO<sub>2</sub> = 1, CH<sub>4</sub> = 21, N<sub>2</sub>O = 310]

1.1023 = Conversion factor [tons/MT]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. CalEEMod default annual solid waste disposal rates used. The GHG emission factors, particularly for CH<sub>4</sub>, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, were used in this assessment. The Project includes a 50 percent diversion rate as required by the City of Los Angeles.

***(f) Water Usage and Wastewater Generation Emissions***

GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water and include: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. CalEEMod default

annual water demand and wastewater rates were used. GHG emissions due to electricity are calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions [MTCO}_2\text{e]} = \frac{(\sum_i (\text{Units} \times D_W \times (EI_W \div 1,000) \times EF_W \times GWP)_i)}{2,204.62}$$

Where:

- Units = Number of land use units (same land use type) [1,000 sf]
- D<sub>W</sub> = Water demand factor [million gallons (Mgal)/1,000 sf/yr]
- EI<sub>W</sub> = Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
- 1,000 = Conversion factor [kWh/MWh]
- EF<sub>W</sub> = GHG emission factor [pounds/MWh]
- GWP = Global warming potential [CO<sub>2</sub> = 1, CH<sub>4</sub> = 21, N<sub>2</sub>O = 310]
- 2,205 = Conversion factor [pounds/MT]
- i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

CalEEMod provides options to account for the use of water saving features such as the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The same electricity GHG emissions factors discussed above were used for water and wastewater energy usage. In addition, the calculation of Project GHG emissions from water/wastewater usage accounts for a 20 percent reduction in water/wastewater emissions with implementation of Project Design Features WAT-PDF-1 provided in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR.

## b. GHG Efficiency Metric for Post 2020 Buildout

A method of analyzing the efficacy of GHG emission reductions, and thereby providing further support for the Project's consistency with the applicable GHG reduction plans and policies, is to compare the Project's emissions to a GHG "efficiency target." A methodology based on an efficiency target analyzes a project's GHG emissions on a per "service population" basis to determine if the project achieves the identified level of GHG efficiency. This methodology recognizes that new growth can occur in a manner consistent with climate goals provided the incremental growth is appropriately efficient from a GHG

emissions standpoint.<sup>9</sup> The service population for a project is based on the number of residents and employees generated by the project. The service population approach has been recognized by multiple air districts, including the Bay Area Air Quality Management District and San Luis Obispo County Air Pollution Control District, both of which have adopted efficiency-based GHG thresholds for 2020,<sup>10</sup> and the SCAQMD, which prepared a draft efficiency target for 2020.<sup>11</sup>

Applied here, the efficiency target for the Project (a mixed-use development with residential and commercial components) was initially based on the AB 32 GHG reduction target and GHG emissions inventory prepared for CARB's *Climate Change Scoping Plan*. The CARB per capita target established in the *Climate Change Scoping Plan* is based on state-wide emissions which include sectors which may not be applicable to the Project (agriculture, industrial). It should be noted that the CARB per capita target is based solely on population data while the efficiency target used by the various air agencies is based on service population which takes into account both population and employment numbers.

To develop the efficiency metric for the Project Buildout Year, land use-related sectors in the 2017 *Climate Change Scoping Plan Update* GHG inventory were identified and separated for an inventory specific to land use projects and then divided by the estimated state population and employment figures consistent with the service population target used by the various air districts.<sup>12,13</sup> Non land use GHG emissions associated with industrial uses, agriculture and forestry, ships and commercial boats, aviation, and rail transport were excluded from the land use-related (i.e., residential and commercial)

---

<sup>9</sup> See *Center for Biological Diversity v. California Department of Fish and Wildlife and Newhall Land and Farming*, 62 Cal. 4th 204, 220 (2015) ("For projects, like the present residential and commercial development, which are designed to accommodate longterm growth in California's population and economic activity, this fact gives rise to an argument that a certain amount of greenhouse gas emissions is as inevitable as population growth. Under this view, a significance criterion framed in terms of efficiency is superior to a simple numerical threshold because CEQA is not intended as a population control measure.")

<sup>10</sup> See Bay Area AQMD's *Air Quality Guidelines*, Section 2.2 , 2017; San Luis Obispo County Air Pollution Control District, *Greenhouse Gas Thresholds and Supporting Evidence*, Section 2.2.3 Efficiency-Based Threshold for Land Use Projects, March 28, 2012.

<sup>11</sup> SCAQMD Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #15, September 28, 2010.

<sup>12</sup> The methodology of using a project-level efficiency target based on the Scoping Plan to evaluate potential GHG impacts is supported by AQMDs (e.g., Bay Area AQMD's *Air Quality Guidelines*, 2017 and SCAQMD's *Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15*, 2010).

<sup>13</sup> Project design features are based on relevant year 2030 targets established by AB 32 and the current (2017) CARB Scoping Plan Update.

emissions inventory. In other words, sources that would not be included in the Project GHG emission estimates were not included in the development of the GHG efficiency threshold.

When determining reductions necessary to achieve 2030 GHG targets, the 2017 *Climate Change Scoping Plan Update* takes into account existing measures or those required by statute which are identified as “known commitments”. However, the 2017 *Climate Change Scoping Plan Update* also concludes that even when accounting for “known commitments”, statewide GHG emissions would not achieve the 2030 targets unless further action is taken to reduce GHGs.<sup>14</sup> Consequently, the 2017 *Climate Change Scoping Plan Update* also takes into account the Post-2020 Cap-and-Trade Program, pursuant to AB 398, to achieve additional reductions to ensure that the 2030 target is achieved. The Post-2020 Cap-and-Trade Program has not allocated necessary reductions to specific sectors which it covers. Sectors which are subject to the Post-2020 Cap-and-Trade Program such as industrial and power generation sectors are not associated with land use projects.

In calculating the efficiency target for land-use related sectors, it was assumed that GHG emissions reductions would be consistent with “known commitments” related to the land-use sector such as energy efficiency and VMT reduction measures. However, as discussed previously, known commitments would not be sufficient to achieve the 2030 targets. Therefore, it was assumed that additional reductions necessary to achieve the 2030 targets would be accomplished by the Post-2020 Cap-and-Trade Program which mainly target industrial and power generation sectors.

The efficiency target for a project's buildout year can be calculated using the methodology described above and extrapolating the emissions reductions needed to maintain consistency with AB 32 and SB 32. Specifically, for this Project, the 2023 (buildout year) efficiency target was estimated based on statewide emissions data provided in the 2017 *Climate Change Scoping Plan Update*. Emissions for sectors related to land use projects (residential, commercial, transportation) were parsed out from the 2017 *Climate Change Scoping Plan Update* emissions inventory and the resultant value was divided by the projected population and employment in 2023. The 2023 (buildout year) GHG efficiency metric expressed in metric tons per service population is estimated to be 3.7 MT CO<sub>2</sub>e/service population/year.<sup>15</sup>

---

<sup>14</sup> California’s 2017 Climate Change Scoping Plan. California Air Resources Board. November 2017.

<sup>15</sup> California Department of Finance Demographic Research Unit Report P-2 "State and County Population Projections by Race/Ethnicity and Age (5-year groups)" 2010 through 2060 (as of July 1). Published 12/15/2014 and California Department of Finance Employment Development Department. Industry Employment Projections Labor Market Information Division 2012-2022

## **Appendix B.2**

---

### Air Quality Worksheets

AQ

**Summary of Project Emissions (Construction)**
**Regional (without PDF)**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
2020	16	182		128	0	15
2021	15	167		126	0	20
2022	29	96		108	0	11
2023	25	59		74	0	8
MAX	29	182		128	0	20
<b>Threshold</b>	<b>75</b>	<b>100</b>		<b>550</b>	<b>150</b>	<b>150</b>
<b>Difference</b>	<b>46</b>	<b>-82</b>		<b>422</b>	<b>150</b>	<b>130</b>
<b>Impact</b>	No	Yes	No	No	No	No

**Regional (with PDF)**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
2020	8	162		141	0	14
2021	8	156		140	0	21
2022	23	90		116	0	11
2023	22	61		80	0	9
MAX	23	162		141	0	21
<b>Threshold</b>	<b>75</b>	<b>100</b>		<b>550</b>	<b>150</b>	<b>150</b>
<b>Difference</b>	<b>52</b>	<b>-62</b>		<b>409</b>	<b>150</b>	<b>129</b>
<b>Impact</b>	No	Yes	No	No	No	No

Max without PDFs 182.1 or -11% reduction

**Localized (without PDF)**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
2020		127		107		5.7
2021		117		106		5.0
2022		90		91		4
2023		56		60		2
MAX		127		107		5
<b>Threshold</b>	<b>121</b>	<b>1531</b>		<b>13</b>	<b>6</b>	
<b>Difference</b>	<b>6</b>	<b>-1,424</b>		<b>-7</b>	<b>-1</b>	
<b>Impact</b>	No	No		No	No	

**Localized (with PDF)**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
2020		107		119		5.0
2021		106		119		4.9
2022		83		99		4.5
2023		58		67		3.1
MAX		107		119		4.9
<b>Threshold</b>	<b>121</b>	<b>1531</b>		<b>13.0</b>	<b>6.0</b>	
<b>Difference</b>	<b>-14</b>	<b>-1,412</b>		<b>-8.0</b>	<b>-1.1</b>	
<b>Impact</b>	No	No		No	No	

**Summary of Project Emissions**
**Baseline**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	2	0		0	0	0
Energy	0	0		0	0	0
Mobile	8	28		69	0	10
Stationary	0	0		0	0	0
Total	10	28		69	0	10

**Baseline with Buildout Emission Factors**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	2	0		0	0	0
Energy	0	0		0	0	0
Mobile	5	18		39	0	9
Stationary	0	0		0	0	0
Total	7	18		39	0	10

**Project**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	16	1		54	0	0
Energy	0	3		1	0	0
Mobile	8	31		66	0	16
Stationary	0	0		2	0	0
Total	25	34		124	0	17

**Net**

	ROG	NO <sub>x</sub>	CO	SO2	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	14	1		54	0	0.3
Energy	0	3		1	0	0.2
Mobile	3	12		27	0	6.6
Stationary	0	0		2	0	0.0
Total	18	16		85	0	7.2
<b>Threshold</b>	<b>55</b>	<b>55</b>		<b>550</b>	<b>150</b>	<b>150.0</b>
<b>Difference</b>	<b>37</b>	<b>39</b>		<b>465</b>	<b>150</b>	<b>142.8</b>
<b>Impact</b>	No	No	No	No	No	No
Onsite Total		4		58	0.5	0.5
Threshold		121		1531	3.0	2.0
Difference		117		1473	2.5	1.5
Impact	No	No	No	No	No	No

## Step 1. Determine Allowable Increase using 98th percentile NO<sub>2</sub> and Max NO<sub>2</sub> data

### NW Coastal NO<sub>2</sub> Monitoring Data

SRA	City	Design Value	98th percentile, ppb			
		2013-2015	2012	2013	2014	2015
NW Coastal	West LA	51	53.6	49	54	49

Threshold (ppb)	Allowable Increase (ppb)
100	49
180	90

SRA	City	Design Value	Max Hourly, ppb			
		2006-2008	2006	2007	2008	2009
NW Coastal	West LA	90	78	82	90	77

Max Hourly vs. 98th Percentile Ratio (Allowable Increase)	55%
---	-----

## Step 2. Use ratio in Step 1 to determine LST lookup value. Extrapolate/Interpolate LST look-up value for project area

### LST Threshold (SRA 2, 25 meter receptor)

Project Size (acres)	NO <sub>2</sub> (lbs/day)	98th Percentile NO <sub>2</sub> (lbs/day)	CO (lbs/day)	PM10	PM2.5	PM10 Ops (lbs/d)	PM2.5 Ops (lbs/d)
				(lbs/day)	(lbs/day)	ay)	ay)
5	221	121	1531	13	6	3	2

## Paseo Marina Baseline - Los Angeles-South Coast County, Winter

**Paseo Marina Baseline**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Strip Mall	100.78	1000sqft	2.31	100,781.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2017
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - RPS of 33.3% for LADWP

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Vehicle Trips - Site Specific

Woodstoves - Site Specific

Energy Use - Historical Data Used

Table Name		Column Name	Default Value	New Value
tblConstDustMitigation		WaterUnpavedRoadVehicleSpeed	40	0
tblLandUse		BuildingSpaceSquareFeet	100,780.00	100,781.00
tblLandUse		LandUseSquareFeet	100,780.00	100,781.00
tblProjectCharacteristics		CO2IntensityFactor	1227.89	840
tblProjectCharacteristics		OperationalYear	2018	2017
tblVehicleTrips		ST_TR	42.04	40.51
tblVehicleTrips		SU_TR	20.43	19.69
tblVehicleTrips		WD_TR	44.32	42.71

## 2.0 Emissions Summary

### 2.2 Overall Operational

#### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2705	2.0000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0468
Energy	5.4200e-003	0.0493	0.0414	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719
Mobile	9.4696	37.4721	102.4179	0.2389	17.4214	0.3385	17.7599	4.6644	0.3191	4.9835						24,257.7366
Total	11.7455	37.5216	102.4801	0.2392	17.4214	0.3423	17.7637	4.6644	0.3229	4.9873						24,317.2552

## 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	2.2705	2.0000e-004	0.0208	0.0000			7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005					0.0468	
Energy	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003					59.4719	
Mobile	8.0236	27.6966	68.7862	0.1374	9.4028	0.2009	9.6037	2.5175	0.1892	2.7067						13,952.28 25	
<b>Total</b>	<b>10.2995</b>	<b>27.7461</b>	<b>68.8484</b>	<b>0.1377</b>	<b>9.4028</b>	<b>0.2047</b>	<b>9.6075</b>	<b>2.5175</b>	<b>0.1930</b>	<b>2.7106</b>						<b>14,011.80 11</b>	

  

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	12.31	26.05	32.82	42.46	46.03	40.21	45.91	46.03	40.22	45.65	0.00	0.00	0.00	0.00	0.00	42.38

## 4.0 Operational Detail - Mobile

---

### 4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

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	8.0236	27.6966	68.7862	0.1374	9.4028	0.2009	9.6037	2.5175	0.1892	2.7067						13,952.28 25	
Unmitigated	9.4696	37.4721	102.4179	0.2389	17.4214	0.3385	17.7599	4.6644	0.3191	4.9835						24,257.73 66	

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT	
Parking Lot	0.00	0.00	0.00				
Strip Mall	4,304.31	4,082.60	1984.36	7,498,542		4,047,194	
Total	4,304.31	4,082.60	1,984.36	7,498,542		4,047,194	

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Strip Mall	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

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	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003					59.4719	
NaturalGas Unmitigated	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003					59.4719	

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Strip Mall	502.524	5.4200e-003	0.0493	0.0414	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719
<b>Total</b>		<b>5.4200e-003</b>	<b>0.0493</b>	<b>0.0414</b>	<b>3.0000e-004</b>		<b>3.7400e-003</b>	<b>3.7400e-003</b>		<b>3.7400e-003</b>	<b>3.7400e-003</b>						<b>59.4719</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Strip Mall	0.502524	5.4200e-003	0.0493	0.0414	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719
<b>Total</b>		<b>5.4200e-003</b>	<b>0.0493</b>	<b>0.0414</b>	<b>3.0000e-004</b>		<b>3.7400e-003</b>	<b>3.7400e-003</b>		<b>3.7400e-003</b>	<b>3.7400e-003</b>						<b>59.4719</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2705	2.0000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0468
Unmitigated	2.2705	2.0000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0468

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2590						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	2.0095						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	2.0100e-003	2.0000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0468
<b>Total</b>	<b>2.2705</b>	<b>2.0000e-004</b>	<b>0.0208</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>						<b>0.0468</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2590						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	2.0095						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	2.0100e-003	2.0000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0468
<b>Total</b>	<b>2.2705</b>	<b>2.0000e-004</b>	<b>0.0208</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>						<b>0.0468</b>

## Paseo Marina Baseline Buildout Year - Los Angeles-South Coast County, Winter

**Paseo Marina Baseline Buildout Year**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Strip Mall	100.78	1000sqft	2.31	100,781.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - RPS of 33.3% for LADWP

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Construction Off-road Equipment Mitigation -

Vehicle Trips - Site Specific

Woodstoves - Site Specific

Energy Use - Historical Data Used

Table Name		Column Name		Default Value				New Value					
tblConstDustMitigation		WaterUnpavedRoadVehicleSpeed				40				0			
tblEnergyUse		LightingElect				0.88				0.88			
tblProjectCharacteristics		CO2IntensityFactor				1227.89				840			
tblProjectCharacteristics		OperationalYear				2018				2023			
tblVehicleTrips		ST_TR				42.04				40.51			
tblVehicleTrips		SU_TR				20.43				19.68			
tblVehicleTrips		WD_TR				44.32				42.71			

## 2.0 Emissions Summary

### 2.2 Overall Operational

#### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2704	1.9000e-004	0.0204	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0466
Energy	5.4200e-003	0.0493	0.0414	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719
Mobile	5.4923	22.7184	58.7356	0.2049	17.4143	0.1627	17.5770	4.6602	0.1513	4.8115						20,922.9190
<b>Total</b>	<b>7.7681</b>	<b>22.7679</b>	<b>58.7974</b>	<b>0.2052</b>	<b>17.4143</b>	<b>0.1665</b>	<b>17.5808</b>	<b>4.6602</b>	<b>0.1551</b>	<b>4.8153</b>						<b>20,982.4374</b>

#### 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	2.2704	1.9000e-004	0.0204	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0466
Energy	5.4200e-003	0.0493	0.0414	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719
Mobile	4.6927	18.4131	39.0809	0.1188	9.3990	0.0993	9.4983	2.5152	0.0923	2.6075						12,149.5996
<b>Total</b>	<b>6.9684</b>	<b>18.4625</b>	<b>39.1427</b>	<b>0.1191</b>	<b>9.3990</b>	<b>0.1031</b>	<b>9.5021</b>	<b>2.5152</b>	<b>0.0961</b>	<b>2.6113</b>						<b>12,209.1180</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	10.29	18.91	33.43	41.96	46.03	38.09	45.95	46.03	38.05	45.77	0.00	0.00	0.00	0.00	0.00	41.81

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

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	4.6927	18.4131	39.0809	0.1188	9.3990	0.0993	9.4983	2.5152	0.0923	2.6075						12,149.59
Unmitigated	5.4923	22.7184	58.7356	0.2049	17.4143	0.1627	17.5770	4.6602	0.1513	4.8115						96 20,922.91
																90

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00				
Strip Mall	4,304.36	4,082.64	1983.37	7,498,343		4,047,086	
Total	4,304.36	4,082.64	1,983.37	7,498,343		4,047,086	

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

## 5.0 Energy Detail

---

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

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	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719
NaturalGas Unmitigated	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003						59.4719

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day											lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000	
Strip Mall	502.524	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003					59.4719	
<b>Total</b>		<b>5.4200e-003</b>	<b>0.0493</b>	<b>0.0414</b>	<b>3.0000e-004</b>			<b>3.7400e-003</b>	<b>3.7400e-003</b>		<b>3.7400e-003</b>	<b>3.7400e-003</b>					<b>59.4719</b>	

#### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day											lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000	
Strip Mall	0.502524	5.4200e-003	0.0493	0.0414	3.0000e-004			3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003					59.4719	
<b>Total</b>		<b>5.4200e-003</b>	<b>0.0493</b>	<b>0.0414</b>	<b>3.0000e-004</b>			<b>3.7400e-003</b>	<b>3.7400e-003</b>		<b>3.7400e-003</b>	<b>3.7400e-003</b>					<b>59.4719</b>	

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2704	1.9000e-004	0.0204	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0466
Unmitigated	2.2704	1.9000e-004	0.0204	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0466

### 6.2 Area by SubCategory

#### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2590						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	2.0095						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	1.8900e-003	1.9000e-004	0.0204	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0466
<b>Total</b>	<b>2.2704</b>	<b>1.9000e-004</b>	<b>0.0204</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>						<b>0.0466</b>

#### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2590						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	2.0095						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	1.8900e-003	1.9000e-004	0.0204	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005						0.0466
<b>Total</b>	<b>2.2704</b>	<b>1.9000e-004</b>	<b>0.0204</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>						<b>0.0466</b>

## Paseo Marina Construction - Los Angeles-South Coast County, Winter

**Paseo Marina Construction**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,217.00	Space	10.95	486,800.00	0
High Turnover (Sit Down Restaurant)	13.65	1000sqft	0.31	13,650.00	0
Apartments Mid Rise	658.00	Dwelling Unit	17.32	647,029.00	1882
Strip Mall	13.65	1000sqft	0.31	13,650.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

## Trips and VMT - Site Specific

## **Demolition -**

## Grading -

Construction Off-road Equipment Mitigation -

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	35.00	260.00
tblConstructionPhase	NumDays	440.00	413.00
tblConstructionPhase	NumDays	440.00	414.00
tblConstructionPhase	NumDays	440.00	150.00
tblConstructionPhase	NumDays	30.00	85.00
tblConstructionPhase	NumDays	45.00	262.00
tblConstructionPhase	NumDays	35.00	22.00
tblConstructionPhase	NumDays	35.00	43.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	20.00	174.00
tblGrading	MaterialExported	0.00	220,000.00
tblLandUse	LandUseSquareFeet	658,000.00	647,029.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00



tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	40.40
tblTripsAndVMT	HaulingTripLength	20.00	40.40
tblTripsAndVMT	HaulingTripNumber	1,104.00	5,100.00
tblTripsAndVMT	HaulingTripNumber	27,500.00	31,429.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	WorkerTripNumber	30.00	40.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	38.00	60.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	138.00	0.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00

## 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					
2020	15.6693	182.0813	128.3962	0.4217	12.0202	5.5361	15.1302	2.8830	5.2823	7.7359						42,818.73 82
2021	14.7230	167.3734	126.3978	0.4246	15.7194	5.0263	20.3962	4.0892	4.8252	8.5442						43,228.01 43
2022	29.4064	96.0839	107.8404	0.2462	6.8624	4.0042	10.8666	1.8438	3.8269	5.6707						24,017.20 96
2023	25.2236	59.3821	73.5485	0.1801	5.9263	2.3549	8.2011	1.5920	2.2466	3.7733						17,656.32 68
Maximum	29.4064	182.0813	128.3962	0.4246	15.7194	5.5361	20.3962	4.0892	5.2823	8.5442						43,228.01 43

### 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					
2020	7.8841	162.2540	140.7572	0.4217	10.2472	5.1491	14.2821	2.6146	5.1349	7.5797						42,818.73 82
2021	8.2189	156.3762	139.5288	0.4246	15.6614	5.0824	20.5556	4.0805	5.0711	8.9623						43,228.01 43
2022	23.4386	90.0634	116.1764	0.2462	6.8624	4.5084	11.3707	1.8438	4.5035	6.3472						24,017.20 95
2023	21.7106	60.8883	80.2275	0.1801	5.9263	3.0400	8.9663	1.5920	3.0365	4.6285						17,656.32 68
Maximum	23.4386	162.2540	140.7572	0.4246	15.6614	5.1491	20.5556	4.0805	5.1349	8.9623						43,228.01 43
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	27.96	7.00	-9.29	0.00	4.52	-5.07	-1.06	2.66	-9.67	-6.97	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

---

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2020	5/30/2020	5	85	

2	Grading Building 1-3	Grading	5/1/2020	5/3/2021	5	262
3	Podium Building 1	Site Preparation	8/1/2020	3/31/2021	5	173
4	Podium Building 2	Site Preparation	11/1/2020	6/30/2021	5	173
5	Construction Building 1	Building Construction	4/1/2021	10/31/2022	5	413
6	Podium Building 3	Site Preparation	5/4/2021	12/31/2021	5	174
7	Construction Building 2	Building Construction	7/1/2021	1/31/2023	5	414
8	Architectural Coating	Architectural Coating	7/1/2022	6/29/2023	5	260
9	Construction Building 3	Building Construction	12/1/2022	6/28/2023	5	150
10	Paving Building 1	Paving	12/1/2022	12/31/2022	5	22
11	Paving Building 2	Paving	2/1/2023	3/31/2023	5	43
12	Paving Building 3	Paving	5/1/2023	6/30/2023	5	45

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 10.95**

**Residential Indoor: 1,310,234; Residential Outdoor: 436,745; Non-Residential Indoor: 40,950; Non-Residential Outdoor: 13,650; Striped**

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	0	8.00	158	0.38
Demolition	Generator Sets	0	8.00	84	0.74
Demolition	Off-Highway Tractors	2	8.00	124	0.44
Demolition	Rough Terrain Forklifts	1	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Signal Boards	2	8.00	6	0.82
Demolition	Skid Steer Loaders	1	8.00	65	0.37
Demolition	Welders	1	8.00	46	0.45
Grading Building 1-3	Air Compressors	0	8.00	78	0.48
Grading Building 1-3	Bore/Drill Rigs	2	8.00	221	0.50
Grading Building 1-3	Cement and Mortar Mixers	1	8.00	9	0.56
Grading Building 1-3	Crushing/Proc. Equipment	0	8.00	85	0.78

Grading Building 1-3	Excavators	2	8.00	158	0.38
Grading Building 1-3	Forklifts	0	8.00	89	0.20
Grading Building 1-3	Generator Sets	0	8.00	84	0.74
Grading Building 1-3	Graders	0	8.00	187	0.41
Grading Building 1-3	Off-Highway Tractors	2	8.00	124	0.44
Grading Building 1-3	Plate Compactors	0	8.00	8	0.43
Grading Building 1-3	Rough Terrain Forklifts	1	8.00	100	0.40
Grading Building 1-3	Rubber Tired Dozers	0	8.00	247	0.40
Grading Building 1-3	Rubber Tired Loaders	2	8.00	203	0.36
Grading Building 1-3	Scrapers	0	8.00	367	0.48
Grading Building 1-3	Signal Boards	2	8.00	6	0.82
Grading Building 1-3	Skid Steer Loaders	1	8.00	65	0.37
Grading Building 1-3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading Building 1-3	Welders	2	8.00	46	0.45
Podium Building 1	Air Compressors	1	8.00	78	0.48
Podium Building 1	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 1	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 1	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 1	Cranes	1	8.00	231	0.29
Podium Building 1	Forklifts	2	8.00	89	0.20
Podium Building 1	Generator Sets	0	8.00	84	0.74
Podium Building 1	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 1	Pavers	0	8.00	130	0.42
Podium Building 1	Paving Equipment	0	8.00	132	0.36
Podium Building 1	Plate Compactors	2	8.00	8	0.43
Podium Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 1	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 1	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 1	Signal Boards	2	8.00	6	0.82
Podium Building 1	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 1	Surfacing Equipment	0	8.00	263	0.30
Podium Building 1	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 1	Trenchers	0	8.00	78	0.50
Podium Building 1	Welders	2	8.00	46	0.45
Podium Building 2	Air Compressors	1	8.00	78	0.48

Podium Building 2	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 2	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 2	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 2	Cranes	1	8.00	231	0.29
Podium Building 2	Forklifts	2	8.00	89	0.20
Podium Building 2	Generator Sets	0	8.00	84	0.74
Podium Building 2	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 2	Pavers	0	8.00	130	0.42
Podium Building 2	Paving Equipment	0	8.00	132	0.36
Podium Building 2	Plate Compactors	2	8.00	8	0.43
Podium Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 2	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 2	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 2	Signal Boards	2	8.00	6	0.82
Podium Building 2	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 2	Surfacing Equipment	0	8.00	263	0.30
Podium Building 2	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 2	Trenchers	0	8.00	78	0.50
Podium Building 2	Welders	2	8.00	46	0.45
Podium Building 3	Air Compressors	1	8.00	78	0.48
Podium Building 3	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 3	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 3	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 3	Cranes	1	8.00	231	0.29
Podium Building 3	Forklifts	2	8.00	89	0.20
Podium Building 3	Generator Sets	0	8.00	84	0.74
Podium Building 3	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 3	Pavers	0	8.00	130	0.42
Podium Building 3	Paving Equipment	0	8.00	132	0.36
Podium Building 3	Plate Compactors	2	8.00	8	0.43
Podium Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 3	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 3	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 3	Signal Boards	2	8.00	6	0.82
Podium Building 3	Skid Steer Loaders	1	8.00	65	0.37

Podium Building 3	Surfacing Equipment	0	8.00	263	0.30
Podium Building 3	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 3	Trenchers	0	8.00	78	0.50
Podium Building 3	Welders	2	8.00	46	0.45
Construction Building 1	Air Compressors	3	8.00	78	0.48
Construction Building 1	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 1	Cranes	1	7.00	231	0.29
Construction Building 1	Forklifts	3	8.00	89	0.20
Construction Building 1	Generator Sets	0	8.00	84	0.74
Construction Building 1	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 1	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 1	Signal Boards	2	8.00	6	0.82
Construction Building 1	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 1	Welders	2	8.00	46	0.45
Construction Building 2	Air Compressors	3	8.00	78	0.48
Construction Building 2	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 2	Cranes	1	7.00	231	0.29
Construction Building 2	Forklifts	3	8.00	89	0.20
Construction Building 2	Generator Sets	0	8.00	84	0.74
Construction Building 2	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 2	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 2	Signal Boards	2	8.00	6	0.82
Construction Building 2	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 2	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving Building 1	Air Compressors	2	8.00	78	0.48
Paving Building 1	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 1	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 1	Cranes	0	8.00	231	0.29
Paving Building 1	Forklifts	2	8.00	89	0.20
Paving Building 1	Generator Sets	0	8.00	84	0.74

Paving Building 1	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 1	Pavers	1	8.00	130	0.42
Paving Building 1	Paving Equipment	1	8.00	132	0.36
Paving Building 1	Plate Compactors	2	8.00	8	0.43
Paving Building 1	Rollers	1	8.00	80	0.38
Paving Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 1	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 1	Signal Boards	2	8.00	6	0.82
Paving Building 1	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 1	Surfacing Equipment	0	8.00	263	0.30
Paving Building 1	Trenchers	1	8.00	78	0.50
Paving Building 1	Welders	1	8.00	46	0.45
Construction Building 3	Air Compressors	3	8.00	78	0.48
Construction Building 3	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 3	Cranes	1	7.00	231	0.29
Construction Building 3	Forklifts	3	8.00	89	0.20
Construction Building 3	Generator Sets	0	8.00	84	0.74
Construction Building 3	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 3	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 3	Signal Boards	2	8.00	6	0.82
Construction Building 3	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 3	Welders	2	8.00	46	0.45
Paving Building 2	Air Compressors	2	8.00	78	0.48
Paving Building 2	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 2	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 2	Cranes	0	8.00	231	0.29
Paving Building 2	Forklifts	2	8.00	89	0.20
Paving Building 2	Generator Sets	0	8.00	84	0.74
Paving Building 2	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 2	Pavers	1	8.00	130	0.42
Paving Building 2	Paving Equipment	1	8.00	132	0.36
Paving Building 2	Plate Compactors	2	8.00	8	0.43
Paving Building 2	Rollers	1	8.00	80	0.38

Paving Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 2	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 2	Signal Boards	2	8.00	6	0.82
Paving Building 2	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 2	Surfacing Equipment	0	8.00	263	0.30
Paving Building 2	Trenchers	1	8.00	78	0.50
Paving Building 2	Welders	1	8.00	46	0.45
Paving Building 3	Air Compressors	2	8.00	78	0.48
Paving Building 3	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 3	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 3	Cranes	0	8.00	231	0.29
Paving Building 3	Forklifts	2	8.00	89	0.20
Paving Building 3	Generator Sets	0	8.00	84	0.74
Paving Building 3	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 3	Pavers	1	8.00	130	0.42
Paving Building 3	Paving Equipment	1	8.00	132	0.36
Paving Building 3	Plate Compactors	2	8.00	8	0.43
Paving Building 3	Rollers	1	8.00	80	0.38
Paving Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 3	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 3	Signal Boards	2	8.00	6	0.82
Paving Building 3	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 3	Surfacing Equipment	0	8.00	263	0.30
Paving Building 3	Trenchers	1	8.00	78	0.50
Paving Building 3	Welders	1	8.00	46	0.45

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	40.00	4.00	5,100.00	14.70	6.90	40.40	LD_Mix	HDT_Mix	HHDT
Grading Building 1-3	15	60.00	4.00	31,429.00	14.70	6.90	40.40	LD_Mix	HDT_Mix	HHDT
Podium Building 1	21	75.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Podium Building 2	21	75.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Podium Building 3	21	75.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Construction Building 1	16	225.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Construction Building 2	16	225.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Building 1	19	70.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Construction Building 3	16	225.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Building 2	19	70.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Building 3	19	70.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8116	0.0000	2.8116	0.4257	0.0000	0.4257						0.0000
Off-Road	3.2782	27.6961	28.0463	0.0486		1.4345	1.4345		1.3918	1.3918						4,601.8110
Total	3.2782	27.6961	28.0463	0.0486	2.8116	1.4345	4.2461	0.4257	1.3918	1.8175						4,601.8110

#### 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	0.9679	29.6442	7.2051	0.0884	2.1178	0.1095	2.2273	0.5804	0.1048	0.6852						9,594.0698
Vendor	0.0149	0.4254	0.1230	1.0100e-003	0.0256	2.0300e-003	0.0276	7.3700e-003	1.9500e-003	9.3200e-003						107.9598
Worker	0.2044	0.1450	1.6040	4.4500e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220						443.3172
Total	1.1871	30.2146	8.9321	0.0938	2.5906	0.1153	2.7058	0.7064	0.1102	0.8165						10,145.3468

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0965	0.0000	1.0965	0.1660	0.0000	0.1660						0.0000
Off-Road	1.0969	22.9690	30.6356	0.0486		1.3999	1.3999		1.3999	1.3999						4,601.8110
Total	1.0969	22.9690	30.6356	0.0486	1.0965	1.3999	2.4964	0.1660	1.3999	1.5659						4,601.8110

### 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	0.9679	29.6442	7.2051	0.0884	2.1178	0.1095	2.2273	0.5804	0.1048	0.6852						9,594.0698
Vendor	0.0149	0.4254	0.1230	1.0100e-003	0.0256	2.0300e-003	0.0276	7.3700e-003	1.9500e-003	9.3200e-003						107.9598
Worker	0.2044	0.1450	1.6040	4.4500e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220						443.3172
Total	1.1871	30.2146	8.9321	0.0938	2.5906	0.1153	2.7058	0.7064	0.1102	0.8165						10,145.3468

### **3.3 Grading Building 1-3 - 2020**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0950	0.0000	0.0950	0.0144	0.0000	0.0144						0.0000
Off-Road	3.3857	33.2735	28.2870	0.0638		1.3337	1.3337		1.2443	1.2443						6,084.4515

Total	3.3857	33.2735	28.2870	0.0638	0.0950	1.3337	1.4287	0.0144	1.2443	1.2587							6,084.451 5
-------	--------	---------	---------	--------	--------	--------	--------	--------	--------	--------	--	--	--	--	--	--	----------------

### 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	1.9351	59.2676	14.4052	0.1767	5.8269	0.2189	6.0458	1.5514	0.2094	1.7608						19,181.42 63
Vendor	0.0149	0.4254	0.1230	1.0100e-003	0.0256	2.0300e-003	0.0276	7.3700e-003	1.9500e-003	9.3200e-003						107.9598
Worker	0.3066	0.2175	2.4061	6.6700e-003	0.6707	5.6100e-003	0.6763	0.1779	5.1600e-003	0.1830						664.9758
Total	2.2565	59.9105	16.9342	0.1844	6.5231	0.2266	6.7497	1.7366	0.2166	1.9531						19,954.36 19

### 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					0.0370	0.0000	0.0370	5.6100e-003	0.0000	5.6100e-003						0.0000
Off-Road	1.6095	30.8777	38.9668	0.0638		1.4439	1.4439		1.4439	1.4439						6,084.451 5
Total	1.6095	30.8777	38.9668	0.0638	0.0370	1.4439	1.4810	5.6100e-003	1.4439	1.4496						6,084.451 5

### 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	1.9351	59.2676	14.4052	0.1767	5.8269	0.2189	6.0458	1.5514	0.2094	1.7608						19,181.42 63

Vendor	0.0149	0.4254	0.1230	1.0100e-003	0.0256	2.0300e-003	0.0276	7.3700e-003	1.9500e-003	9.3200e-003						107.9598
Worker	0.3066	0.2175	2.4061	6.6700e-003	0.6707	5.6100e-003	0.6763	0.1779	5.1600e-003	0.1830						664.9758
Total	2.2565	59.9105	16.9342	0.1844	6.5231	0.2266	6.7497	1.7366	0.2166	1.9531						19,954.30 19

**3.3 Grading Building 1-3 - 2021**

### **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					0.0950	0.0000	0.0950	0.0144	0.0000	0.0144						0.0000	
Off-Road	3.1361	29.9190	28.1172	0.0638		1.1911	1.1911		1.1110	1.1110						6,089.230 7	
<b>Total</b>	<b>3.1361</b>	<b>29.9190</b>	<b>28.1172</b>	<b>0.0638</b>	<b>0.0950</b>	<b>1.1911</b>	<b>1.2860</b>	<b>0.0144</b>	<b>1.1110</b>	<b>1.1254</b>						<b>6,089.230 7</b>	

### **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	1.8505	54.8285	14.2479	0.1745	10.6786	0.1966	10.8752	2.7422	0.1881	2.9304						18,966.605	
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003						107.1108	
Worker	0.2861	0.1957	2.2095	6.4600e-003	0.6707	5.4200e-003	0.6761	0.1779	4.9900e-003	0.1829						643.8239	
<b>Total</b>	<b>2.1493</b>	<b>55.4118</b>	<b>16.5698</b>	<b>0.1819</b>	<b>11.3748</b>	<b>0.2029</b>	<b>11.5777</b>	<b>2.9275</b>	<b>0.1939</b>	<b>3.1214</b>						<b>19,717.653</b>	

### **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					0.0370	0.0000	0.0370	5.6100e-003	0.0000	5.6100e-003					0.0000
Off-Road	1.6095	30.8777	38.9668	0.0638		1.4439	1.4439		1.4439	1.4439						6,089.2307
Total	1.6095	30.8777	38.9668	0.0638	0.0370	1.4439	1.4810	5.6100e-003	1.4439	1.4496						6,089.2307

#### 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	1.8505	54.8285	14.2479	0.1745	10.6786	0.1966	10.8752	2.7422	0.1881	2.9304						18,966.6805
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003						107.1108
Worker	0.2861	0.1957	2.2095	6.4600e-003	0.6707	5.4200e-003	0.6761	0.1779	4.9900e-003	0.1829						643.8239
Total	2.1493	55.4118	16.5698	0.1819	11.3748	0.2029	11.5777	2.9275	0.1939	3.1214						19,717.6153

#### **3.4 Podium Building 1 - 2020**

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	4.3700	36.7323	36.4282	0.0608		1.9453	1.9453		1.8702	1.8702						5,669.4461
Total	4.3700	36.7323	36.4282	0.0608	0.0000	1.9453	1.9453	0.0000	1.8702	1.8702						5,669.4461

##### 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
Vendor	0.2603	7.4445	2.1517	0.0177	0.4481	0.0356	0.4837	0.1290	0.0341	0.1631						1,889.296 6
Worker	0.3833	0.2719	3.0076	8.3400e-003	0.8383	7.0100e-003	0.8453	0.2223	6.4600e-003	0.2288						831.2198
Total	0.6435	7.7164	5.1593	0.0260	1.2865	0.0426	1.3291	0.3514	0.0405	0.3919						2,720.516 3

#### 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						0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.446 1
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.446 1

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.2603	7.4445	2.1517	0.0177	0.4481	0.0356	0.4837	0.1290	0.0341	0.1631						1,889.296 6
Worker	0.3833	0.2719	3.0076	8.3400e-003	0.8383	7.0100e-003	0.8453	0.2223	6.4600e-003	0.2288						831.2198
Total	0.6435	7.7164	5.1593	0.0260	1.2865	0.0426	1.3291	0.3514	0.0405	0.3919						2,720.516 3

#### **3.4 Podium Building 1 - 2021**

### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	4.0400	33.9945	36.1281	0.0608		1.7222	1.7222		1.6551	1.6551						5,669.0337	
Total	4.0400	33.9945	36.1281	0.0608	0.0000	1.7222	1.7222	0.0000	1.6551	1.6551						5,669.0337	

### 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	
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.4390	
Worker	0.3576	0.2446	2.7619	8.0700e-003	0.8383	6.7700e-003	0.8451	0.2223	6.2400e-003	0.2286						804.7799	
Total	0.5810	7.0268	4.7273	0.0256	1.2865	0.0211	1.3076	0.3514	0.0200	0.3713						2,679.2189	

### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.0337	
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.0337	

### 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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.4390
Worker	0.3576	0.2446	2.7619	8.0700e-003	0.8383	6.7700e-003	0.8451	0.2223	6.2400e-003	0.2286						804.7799
Total	0.5810	7.0268	4.7273	0.0256	1.2865	0.0211	1.3076	0.3514	0.0200	0.3713						2,679.2189

### **3.5 Podium Building 2 - 2020**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	4.3700	36.7323	36.4282	0.0608		1.9453	1.9453		1.8702	1.8702						5,669.4461
Total	4.3700	36.7323	36.4282	0.0608	0.0000	1.9453	1.9453	0.0000	1.8702	1.8702						5,669.4461

#### 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
Vendor	0.2603	7.4445	2.1517	0.0177	0.4481	0.0356	0.4837	0.1290	0.0341	0.1631						1,889.2966

Worker	0.3833	0.2719	3.0076	8.3400e-003	0.8383	7.0100e-003	0.8453	0.2223	6.4600e-003	0.2288						831.2198
Total	0.6435	7.7164	5.1593	0.0260	1.2865	0.0426	1.3291	0.3514	0.0405	0.3919						2,720.5163

### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.4461
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.4461

### 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
Vendor	0.2603	7.4445	2.1517	0.0177	0.4481	0.0356	0.4837	0.1290	0.0341	0.1631						1,889.2966
Worker	0.3833	0.2719	3.0076	8.3400e-003	0.8383	7.0100e-003	0.8453	0.2223	6.4600e-003	0.2288						831.2198
Total	0.6435	7.7164	5.1593	0.0260	1.2865	0.0426	1.3291	0.3514	0.0405	0.3919						2,720.5163

### **3.5 Podium Building 2 - 2021**

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					0.0000
Off-Road	4.0400	33.9945	36.1281	0.0608		1.7222	1.7222		1.6551	1.6551					5,669.033 7
<b>Total</b>	<b>4.0400</b>	<b>33.9945</b>	<b>36.1281</b>	<b>0.0608</b>	<b>0.0000</b>	<b>1.7222</b>	<b>1.7222</b>	<b>0.0000</b>	<b>1.6551</b>	<b>1.6551</b>					<b>5,669.033 7</b>

### **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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.430
Worker	0.3576	0.2446	2.7619	8.0700e-003	0.8383	6.7700e-003	0.8451	0.2223	6.2400e-003	0.2286						804.7799
<b>Total</b>	<b>0.5810</b>	<b>7.0268</b>	<b>4.7273</b>	<b>0.0256</b>	<b>1.2865</b>	<b>0.0211</b>	<b>1.3076</b>	<b>0.3514</b>	<b>0.0200</b>	<b>0.3713</b>						<b>2,679.2189</b>

## **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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.03 7	
<b>Total</b>	<b>1.3655</b>	<b>28.0166</b>	<b>37.2688</b>	<b>0.0608</b>	<b>0.0000</b>	<b>1.6967</b>	<b>1.6967</b>	<b>0.0000</b>	<b>1.6967</b>	<b>1.6967</b>						<b>5,669.03 7</b>	

### **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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428					1,874.4390
Worker	0.3576	0.2446	2.7619	8.0700e-003	0.8383	6.7700e-003	0.8451	0.2223	6.2400e-003	0.2286					804.7799
Total	0.5810	7.0268	4.7273	0.0256	1.2865	0.0211	1.3076	0.3514	0.0200	0.3713					2,679.2189

### 3.6 Construction Building 1 - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5204	29.7013	28.6033	0.0507		1.5049	1.5049		1.4426	1.4426						4,784.1369
Total	3.5204	29.7013	28.6033	0.0507		1.5049	1.5049		1.4426	1.4426						4,784.1369

#### 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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.4390
Worker	1.0729	0.7338	8.2858	0.0242	2.5150	0.0203	2.5353	0.6670	0.0187	0.6857						2,414.3398
Total	1.2962	7.5160	10.2511	0.0417	2.9631	0.0347	2.9978	0.7960	0.0324	0.8285						4,288.7788

#### 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	1.2174	24.9631	31.4459	0.0507		1.4949	1.4949		1.4949	1.4949						4,784.13 9
Total	1.2174	24.9631	31.4459	0.0507		1.4949	1.4949		1.4949	1.4949						4,784.13 9

## **Mitigated Construction Off-Site**

3.6 Construction Building 1 - 2022

### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2065	26.4938	28.3022	0.0508		1.2853	1.2853		1.2331	1.2331						4,784.4652
<b>Total</b>	<b>3.2065</b>	<b>26.4938</b>	<b>28.3022</b>	<b>0.0508</b>		<b>1.2853</b>	<b>1.2853</b>		<b>1.2331</b>	<b>1.2331</b>						<b>4,784.4652</b>

### **Unmitigated Construction Off-Site**

### **Mitigated Construction On-Site**

### **Mitigated Construction Off-Site**

Worker	1.0076	0.6627	7.6315	0.0234	2.5150	0.0197	2.5347	0.6670	0.0181	0.6851						2,329.383 7
Total	1.2173	7.1083	9.4919	0.0407	2.9631	0.0322	2.9954	0.7960	0.0301	0.8261						4,187.089 8

### 3.7 Podium Building 3 - 2021

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	4.0400	33.9945	36.1281	0.0608		1.7222	1.7222		1.6551	1.6551						5,669.033 7
Total	4.0400	33.9945	36.1281	0.0608	0.0000	1.7222	1.7222	0.0000	1.6551	1.6551						5,669.033 7

#### 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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.439 0
Worker	0.3576	0.2446	2.7619	8.0700e-003	0.8383	6.7700e-003	0.8451	0.2223	6.2400e-003	0.2286						804.7799
Total	0.5810	7.0268	4.7273	0.0256	1.2865	0.0211	1.3076	0.3514	0.0200	0.3713						2,679.218 9

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					0.0000
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967					5,669.03 7
Total	<b>1.3655</b>	<b>28.0166</b>	<b>37.2688</b>	<b>0.0608</b>	<b>0.0000</b>	<b>1.6967</b>	<b>1.6967</b>	<b>0.0000</b>	<b>1.6967</b>	<b>1.6967</b>					<b>5,669.03 7</b>

## **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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.430
Worker	0.3576	0.2446	2.7619	8.0700e-003	0.8383	6.7700e-003	0.8451	0.2223	6.2400e-003	0.2286						804.7799
<b>Total</b>	<b>0.5810</b>	<b>7.0268</b>	<b>4.7273</b>	<b>0.0256</b>	<b>1.2865</b>	<b>0.0211</b>	<b>1.3076</b>	<b>0.3514</b>	<b>0.0200</b>	<b>0.3713</b>						<b>2,679.2189</b>

3.8 Construction Building 2 - 2021

## **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5204	29.7013	28.6033	0.0507		1.5049	1.5049		1.4426	1.4426						4,784.1369
<b>Total</b>	<b>3.5204</b>	<b>29.7013</b>	<b>28.6033</b>	<b>0.0507</b>		<b>1.5049</b>	<b>1.5049</b>		<b>1.4426</b>	<b>1.4426</b>						<b>4,784.1369</b>

### **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					
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428					1,874.4390
Worker	1.0729	0.7338	8.2858	0.0242	2.5150	0.0203	2.5353	0.6670	0.0187	0.6857					2,414.3398
Total	1.2962	7.5160	10.2511	0.0417	2.9631	0.0347	2.9978	0.7960	0.0324	0.8285					4,288.7788

#### 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	1.2174	24.9631	31.4459	0.0507		1.4949	1.4949		1.4949	1.4949						4,784.1369
Total	1.2174	24.9631	31.4459	0.0507		1.4949	1.4949		1.4949	1.4949						4,784.1369

#### 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
Vendor	0.2234	6.7822	1.9654	0.0175	0.4482	0.0143	0.4625	0.1290	0.0137	0.1428						1,874.4390
Worker	1.0729	0.7338	8.2858	0.0242	2.5150	0.0203	2.5353	0.6670	0.0187	0.6857						2,414.3398
Total	1.2962	7.5160	10.2511	0.0417	2.9631	0.0347	2.9978	0.7960	0.0324	0.8285						4,288.7788

#### 3.8 Construction Building 2 - 2022

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2065	26.4938	28.3022	0.0508		1.2853	1.2853		1.2331	1.2331						4,784.462
Total	3.2065	26.4938	28.3022	0.0508		1.2853	1.2853		1.2331	1.2331						4,784.462

### **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
Vendor	0.2097	6.4456	1.8604	0.0173	0.4482	0.0126	0.4607	0.1290	0.0120	0.1410						1,857.702
Worker	1.0076	0.6627	7.6315	0.0234	2.5150	0.0197	2.5347	0.6670	0.0181	0.6851						2,329.3837
Total	1.2173	7.1083	9.4919	0.0407	2.9631	0.0322	2.9954	0.7960	0.0301	0.8261						4,187.0888

### **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	1.2174	24.9631	31.4459	0.0508		1.4949	1.4949		1.4949	1.4949						4,784.4652
Total	1.2174	24.9631	31.4459	0.0508		1.4949	1.4949		1.4949	1.4949						4,784.4652

## **Mitigated Construction Off-Site**

3.8 Construction Building 2 - 2023

### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9739	24.2099	28.1064	0.0508		1.1123	1.1123		1.0673	1.0673						4,784.346
Total	2.9739	24.2099	28.1064	0.0508		1.1123	1.1123		1.0673	1.0673						4,784.346

### **Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1558	4.8817	1.6531	0.0168	0.4482	5.9600e-003	0.4541	0.1290	5.6900e-003	0.1347						1,799.7547

Worker	0.9493	0.5994	7.0148	0.0225	2.5150	0.0191	2.5341	0.6670	0.0176	0.6846						2,244.064 1
Total	1.1051	5.4811	8.6679	0.0393	2.9631	0.0251	2.9882	0.7960	0.0233	0.8193						4,043.818 8

#### 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	1.2174	24.9631	31.4459	0.0508			1.4949	1.4949		1.4949	1.4949					4,784.344 6
Total	1.2174	24.9631	31.4459	0.0508			1.4949	1.4949		1.4949	1.4949					4,784.344 6

#### 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
Vendor	0.1558	4.8817	1.6531	0.0168	0.4482	5.9600e-003	0.4541	0.1290	5.6900e-003	0.1347						1,799.754 7
Worker	0.9493	0.5994	7.0148	0.0225	2.5150	0.0191	2.5341	0.6670	0.0176	0.6846						2,244.064 1
Total	1.1051	5.4811	8.6679	0.0393	2.9631	0.0251	2.9882	0.7960	0.0233	0.8193						4,043.818 8

#### **3.9 Architectural Coating - 2022**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

## **Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>							

## **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	17.0657	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>17.0657</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>

### **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					
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					0.0000

### 3.9 Architectural Coating - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.0657						0.0000	0.0000		0.0000	0.0000					0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000
Total	17.0657	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000

#### 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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

#### 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	17.0657						0.0000	0.0000		0.0000	0.0000					0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000
<b>Total</b>	<b>17.0657</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>					<b>0.0000</b>

#### 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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>							

#### **3.10 Construction Building 3 - 2022**

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2065	26.4938	28.3022	0.0508		1.2853	1.2853		1.2331	1.2331						4,784.469 2
<b>Total</b>	<b>3.2065</b>	<b>26.4938</b>	<b>28.3022</b>	<b>0.0508</b>		<b>1.2853</b>	<b>1.2853</b>		<b>1.2331</b>	<b>1.2331</b>						<b>4,784.469 2</b>

### **Unmitigated Construction Off-Site**

### **Mitigated Construction On-Site**

### **Mitigated Construction Off-Site**

Worker	1.0076	0.6627	7.6315	0.0234	2.5150	0.0197	2.5347	0.6670	0.0181	0.6851						2,329.383 7
Total	1.2173	7.1083	9.4919	0.0407	2.9631	0.0322	2.9954	0.7960	0.0301	0.8261						4,187.089 8

### 3.10 Construction Building 3 - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9739	24.2099	28.1064	0.0508		1.1123	1.1123		1.0673	1.0673						4,784.344 6
Total	2.9739	24.2099	28.1064	0.0508		1.1123	1.1123		1.0673	1.0673						4,784.344 6

#### 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
Vendor	0.1558	4.8817	1.6531	0.0168	0.4482	5.9600e-003	0.4541	0.1290	5.6900e-003	0.1347						1,799.754 7
Worker	0.9493	0.5994	7.0148	0.0225	2.5150	0.0191	2.5341	0.6670	0.0176	0.6846						2,244.064 1
Total	1.1051	5.4811	8.6679	0.0393	2.9631	0.0251	2.9882	0.7960	0.0233	0.8193						4,043.818 8

#### 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	1.2174	24.9631	31.4459	0.0508		1.4949	1.4949		1.4949	1.4949						4,784.346
Total	1.2174	24.9631	31.4459	0.0508		1.4949	1.4949		1.4949	1.4949						4,784.346

### **Mitigated Construction Off-Site**

**3.11 Paving Building 1 - 2022**

### **Unmitigated Construction On-Site**

### **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					
Vendor	0.0719	2.2099	0.6379	5.9500e-003	0.1537	4.3000e-003	0.1580	0.0442	4.1100e-003	0.0484					636.9278
Worker	0.3135	0.2062	2.3742	7.2700e-003	0.7824	6.1200e-003	0.7886	0.2075	5.6400e-003	0.2132					724.6971
Total	0.3854	2.4161	3.0121	0.0132	0.9361	0.0104	0.9465	0.2518	9.7500e-003	0.2615					1,361.6250

#### 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	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4665
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4665

#### 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
Vendor	0.0719	2.2099	0.6379	5.9500e-003	0.1537	4.3000e-003	0.1580	0.0442	4.1100e-003	0.0484						636.9278
Worker	0.3135	0.2062	2.3742	7.2700e-003	0.7824	6.1200e-003	0.7886	0.2075	5.6400e-003	0.2132						724.6971
Total	0.3854	2.4161	3.0121	0.0132	0.9361	0.0104	0.9465	0.2518	9.7500e-003	0.2615						1,361.6250

#### **3.12 Paving Building 2 - 2023**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9212	24.6043	29.1609	0.0501		1.2095	1.2095		1.1486	1.1486						4,712.4905
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>2.9212</b>	<b>24.6043</b>	<b>29.1609</b>	<b>0.0501</b>		<b>1.2095</b>	<b>1.2095</b>		<b>1.1486</b>	<b>1.1486</b>						<b>4,712.4905</b>

#### 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
Vendor	0.0534	1.6737	0.5668	5.7500e-003	0.1537	2.0400e-003	0.1557	0.0442	1.9500e-003	0.0462						617.0587
Worker	0.2953	0.1865	2.1824	7.0000e-003	0.7824	5.9500e-003	0.7884	0.2075	5.4800e-003	0.2130						698.1533
<b>Total</b>	<b>0.3488</b>	<b>1.8602</b>	<b>2.7492</b>	<b>0.0128</b>	<b>0.9361</b>	<b>7.9900e-003</b>	<b>0.9441</b>	<b>0.2518</b>	<b>7.4300e-003</b>	<b>0.2592</b>						<b>1,315.2120</b>

#### 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	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4905
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>1.1181</b>	<b>23.5046</b>	<b>31.2888</b>	<b>0.0501</b>		<b>1.4436</b>	<b>1.4436</b>		<b>1.4436</b>	<b>1.4436</b>						<b>4,712.4905</b>

### 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	
Vendor	0.0534	1.6737	0.5668	5.7500e-003	0.1537	2.0400e-003	0.1557	0.0442	1.9500e-003	0.0462						617.0587	
Worker	0.2953	0.1865	2.1824	7.0000e-003	0.7824	5.9500e-003	0.7884	0.2075	5.4800e-003	0.2130						698.1533	
<b>Total</b>	<b>0.3488</b>	<b>1.8602</b>	<b>2.7492</b>		<b>0.0128</b>	<b>0.9361</b>	<b>7.9900e-003</b>	<b>0.9441</b>	<b>0.2518</b>	<b>7.4300e-003</b>	<b>0.2592</b>					<b>1,315.212</b>	
																<b>0</b>	

### 3.13 Paving Building 3 - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	2.9212	24.6043	29.1609	0.0501		1.2095	1.2095		1.1486	1.1486						4,712.4905	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000	
<b>Total</b>	<b>2.9212</b>	<b>24.6043</b>	<b>29.1609</b>	<b>0.0501</b>		<b>1.2095</b>	<b>1.2095</b>		<b>1.1486</b>	<b>1.1486</b>						<b>4,712.4905</b>	

#### 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	
Vendor	0.0534	1.6737	0.5668	5.7500e-003	0.1537	2.0400e-003	0.1557	0.0442	1.9500e-003	0.0462						617.0587	

Worker	0.2953	0.1865	2.1824	7.0000e-003	0.7824	5.9500e-003	0.7884	0.2075	5.4800e-003	0.2130						698.1533
Total	0.3488	1.8602	2.7492	0.0128	0.9361	7.9900e-003	0.9441	0.2518	7.4300e-003	0.2592						1,315.2120

#### 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	1.1181	23.5046	31.2888	0.0501			1.4436	1.4436		1.4436	1.4436					4,712.4905
Paving	0.0000						0.0000	0.0000		0.0000	0.0000					0.0000
Total	1.1181	23.5046	31.2888	0.0501			1.4436	1.4436		1.4436	1.4436					4,712.4905

#### 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
Vendor	0.0534	1.6737	0.5668	5.7500e-003	0.1537	2.0400e-003	0.1557	0.0442	1.9500e-003	0.0462						617.0587
Worker	0.2953	0.1865	2.1824	7.0000e-003	0.7824	5.9500e-003	0.7884	0.2075	5.4800e-003	0.2130						698.1533
Total	0.3488	1.8602	2.7492	0.0128	0.9361	7.9900e-003	0.9441	0.2518	7.4300e-003	0.2592						1,315.2120

Paseo Marina Construction (Onsite Localized) - Los Angeles-South Coast County, Winter

**Paseo Marina Construction (Onsite Localized)**  
Los Angeles-South Coast County, Winter

## 1.0 Project Characteristics

---

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,217.00	Space	10.95	486,800.00	0
High Turnover (Sit Down Restaurant)	13.65	1000sqft	0.31	13,650.00	0
Apartments Mid Rise	658.00	Dwelling Unit	17.32	647,029.00	1882
Strip Mall	13.65	1000sqft	0.31	13,650.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Trips and VMT - Site Specific

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

## On-road Fugitive Dust - Site Specific

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	35.00	260.00
tblConstructionPhase	NumDays	440.00	150.00
tblConstructionPhase	NumDays	440.00	413.00
tblConstructionPhase	NumDays	440.00	414.00
tblConstructionPhase	NumDays	30.00	85.00
tblConstructionPhase	NumDays	45.00	262.00
tblConstructionPhase	NumDays	35.00	43.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	35.00	22.00
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	20.00	174.00
tblGrading	MaterialExported	0.00	220,000.00
tblLandUse	LandUseSquareFeet	658,000.00	647,029.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00











tblOffRoadEquipment	PhaseName		Grading Building 1-3
tblOffRoadEquipment	PhaseName		Podium Building 1
tblOffRoadEquipment	PhaseName		Podium Building 2
tblOffRoadEquipment	PhaseName		Podium Building 3
tblOffRoadEquipment	PhaseName		Construction Building 1
tblOffRoadEquipment	PhaseName		Construction Building 2
tblOffRoadEquipment	PhaseName		Paving Building 1
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Construction Building 3
tblOffRoadEquipment	PhaseName		Paving Building 2
tblOffRoadEquipment	PhaseName		Paving Building 3
tblOffRoadEquipment	PhaseName		Grading Building 1-3
tblOffRoadEquipment	PhaseName		Podium Building 1
tblOffRoadEquipment	PhaseName		Podium Building 2
tblOffRoadEquipment	PhaseName		Podium Building 3
tblOffRoadEquipment	PhaseName		Construction Building 1
tblOffRoadEquipment	PhaseName		Construction Building 2
tblOffRoadEquipment	PhaseName		Paving Building 1
tblOffRoadEquipment	PhaseName		Paving Building 2
tblOffRoadEquipment	PhaseName		Paving Building 3
tblOffRoadEquipment	PhaseName		Podium Building 1
tblOffRoadEquipment	PhaseName		Podium Building 2
tblOffRoadEquipment	PhaseName		Podium Building 3
tblOffRoadEquipment	PhaseName		Paving Building 1
tblOffRoadEquipment	PhaseName		Paving Building 2
tblOffRoadEquipment	PhaseName		Paving Building 3
tblOffRoadEquipment	PhaseName		Podium Building 1
tblOffRoadEquipment	PhaseName		Podium Building 2
tblOffRoadEquipment	PhaseName		Podium Building 3
tblOffRoadEquipment	PhaseName		Paving Building 1
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Paving Building 2
tblOffRoadEquipment	PhaseName		Paving Building 3
tblOffRoadEquipment	PhaseName		Grading Building 1-3
tblOffRoadEquipment	PhaseName		Podium Building 1
tblOffRoadEquipment	PhaseName		Podium Building 2
tblOffRoadEquipment	PhaseName		Podium Building 3
tblOffRoadEquipment	PhaseName		Paving Building 1
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblOnRoadDust	MeanVehicleSpeed	40.00	15.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,104.00	5,100.00
tblTripsAndVMT	HaulingTripNumber	27,500.00	31,429.00
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripLength	6.90	0.25
tblTripsAndVMT	VendorTripNumber	0.00	4.00

tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	30.00	40.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	38.00	60.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	138.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00

## 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				
2020	12.8202	126.8165	106.7395	0.2063	2.9625	5.2415	5.7439	0.4557	5.0011	5.0378					19,682.93 62
2021	12.3261	117.3148	106.1754	0.2061	0.2042	4.9832	5.0410	0.0447	4.7842	4.8018					19,664.93 75
2022	27.3618	89.8751	90.8527	0.1634	0.0473	3.9806	4.0279	0.0146	3.8042	3.8188					15,527.61 68
2023	23.6145	56.3343	60.1355	0.1114	0.0405	2.3452	2.3723	0.0125	2.2375	2.2459					10,614.02 65
Maximum	27.3618	126.8165	106.7395	0.2063	2.9625	5.2415	5.7439	0.4557	5.0011	5.0378					19,682.93 62

### 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					
2020	5.0350	106.9892	119.1005	0.2063	1.1895	4.8545	4.9692	0.1872	4.8537	4.8817					19,682.93 62	
2021	4.9939	106.3176	118.7301	0.2061	0.1462	4.9105	4.9951	0.0360	4.9100	4.9276					19,664.93 74	
2022	21.3362	83.4937	99.4836	0.1634	0.0473	4.4673	4.5146	0.0146	4.4668	4.4814					15,527.61 68	
2023	20.0491	57.5720	67.1239	0.1114	0.0405	3.0211	3.0616	0.0125	3.0208	3.0333					10,614.02 65	
Maximum	21.3362	106.9892	119.1005	0.2063	1.1895	4.9105	4.9951	0.1872	4.9100	4.9276					19,682.93 62	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	32.46	9.21	-11.14	0.00	56.26	-4.25	-2.07	52.55	-9.00	-8.93	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2020	5/30/2020	5	85	
2	Grading Building 1-3	Grading	5/1/2020	5/3/2021	5	262	
3	Podium Building 1	Site Preparation	8/1/2020	3/31/2021	5	173	
4	Podium Building 2	Site Preparation	11/1/2020	6/30/2021	5	173	
5	Podium Building 3	Site Preparation	5/4/2021	12/31/2021	5	174	
6	Construction Building 1	Building Construction	4/1/2021	10/31/2022	5	413	
7	Construction Building 2	Building Construction	7/1/2021	1/31/2023	5	414	
8	Architectural Coating	Architectural Coating	7/1/2022	6/29/2023	5	260	
9	Paving Building 1	Paving	12/1/2022	12/31/2022	5	22	
10	Construction Building 3	Building Construction	12/1/2022	6/28/2023	5	150	
11	Paving Building 2	Paving	2/1/2023	3/31/2023	5	43	

12	Paving Building 3	Paving	5/1/2023	6/30/2023	5	45	
----	-------------------	--------	----------	-----------	---	----	--

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10.95

Residential Indoor: 1,310,234; Residential Outdoor: 436,745; Non-Residential Indoor: 40,950; Non-Residential Outdoor: 13,650; Striped

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	0	8.00	158	0.38
Demolition	Generator Sets	0	8.00	84	0.74
Demolition	Off-Highway Tractors	2	8.00	124	0.44
Demolition	Rough Terrain Forklifts	1	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Signal Boards	2	8.00	6	0.82
Demolition	Skid Steer Loaders	1	8.00	65	0.37
Demolition	Welders	1	8.00	46	0.45
Grading Building 1-3	Air Compressors	0	8.00	78	0.48
Grading Building 1-3	Bore/Drill Rigs	2	8.00	221	0.50
Grading Building 1-3	Cement and Mortar Mixers	1	8.00	9	0.56
Grading Building 1-3	Crushing/Proc. Equipment	0	8.00	85	0.78
Grading Building 1-3	Excavators	2	8.00	158	0.38
Grading Building 1-3	Forklifts	0	8.00	89	0.20
Grading Building 1-3	Generator Sets	0	8.00	84	0.74
Grading Building 1-3	Graders	0	8.00	187	0.41
Grading Building 1-3	Off-Highway Tractors	2	8.00	124	0.44
Grading Building 1-3	Plate Compactors	0	8.00	8	0.43
Grading Building 1-3	Rough Terrain Forklifts	1	8.00	100	0.40
Grading Building 1-3	Rubber Tired Dozers	0	8.00	247	0.40
Grading Building 1-3	Rubber Tired Loaders	2	8.00	203	0.36
Grading Building 1-3	Scrapers	0	8.00	367	0.48
Grading Building 1-3	Signal Boards	2	8.00	6	0.82
Grading Building 1-3	Skid Steer Loaders	1	8.00	65	0.37
Grading Building 1-3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading Building 1-3	Welders	2	8.00	46	0.45
Podium Building 1	Air Compressors	1	8.00	78	0.48
Podium Building 1	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 1	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 1	Concrete/Industrial Saws	3	8.00	81	0.73

Podium Building 1	Cranes	1	8.00	231	0.29
Podium Building 1	Forklifts	2	8.00	89	0.20
Podium Building 1	Generator Sets	0	8.00	84	0.74
Podium Building 1	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 1	Pavers	0	8.00	130	0.42
Podium Building 1	Paving Equipment	0	8.00	132	0.36
Podium Building 1	Plate Compactors	2	8.00	8	0.43
Podium Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 1	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 1	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 1	Signal Boards	2	8.00	6	0.82
Podium Building 1	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 1	Surfacing Equipment	0	8.00	263	0.30
Podium Building 1	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 1	Trenchers	0	8.00	78	0.50
Podium Building 1	Welders	2	8.00	46	0.45
Podium Building 2	Air Compressors	1	8.00	78	0.48
Podium Building 2	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 2	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 2	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 2	Cranes	1	8.00	231	0.29
Podium Building 2	Forklifts	2	8.00	89	0.20
Podium Building 2	Generator Sets	0	8.00	84	0.74
Podium Building 2	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 2	Pavers	0	8.00	130	0.42
Podium Building 2	Paving Equipment	0	8.00	132	0.36
Podium Building 2	Plate Compactors	2	8.00	8	0.43
Podium Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 2	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 2	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 2	Signal Boards	2	8.00	6	0.82
Podium Building 2	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 2	Surfacing Equipment	0	8.00	263	0.30
Podium Building 2	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 2	Trenchers	0	8.00	78	0.50
Podium Building 2	Welders	2	8.00	46	0.45
Podium Building 3	Air Compressors	1	8.00	78	0.48
Podium Building 3	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 3	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 3	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 3	Cranes	1	8.00	231	0.29
Podium Building 3	Forklifts	2	8.00	89	0.20
Podium Building 3	Generator Sets	0	8.00	84	0.74

Podium Building 3	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 3	Pavers	0	8.00	130	0.42
Podium Building 3	Paving Equipment	0	8.00	132	0.36
Podium Building 3	Plate Compactors	2	8.00	8	0.43
Podium Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 3	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 3	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 3	Signal Boards	2	8.00	6	0.82
Podium Building 3	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 3	Surfacing Equipment	0	8.00	263	0.30
Podium Building 3	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 3	Trenchers	0	8.00	78	0.50
Podium Building 3	Welders	2	8.00	46	0.45
Construction Building 1	Air Compressors	3	8.00	78	0.48
Construction Building 1	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 1	Cranes	1	8.00	231	0.29
Construction Building 1	Forklifts	3	8.00	89	0.20
Construction Building 1	Generator Sets	0	8.00	84	0.74
Construction Building 1	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 1	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 1	Signal Boards	2	8.00	6	0.82
Construction Building 1	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 1	Welders	2	8.00	46	0.45
Construction Building 2	Air Compressors	3	8.00	78	0.48
Construction Building 2	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 2	Cranes	1	8.00	231	0.29
Construction Building 2	Forklifts	3	8.00	89	0.20
Construction Building 2	Generator Sets	0	8.00	84	0.74
Construction Building 2	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 2	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 2	Signal Boards	2	8.00	6	0.82
Construction Building 2	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 2	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving Building 1	Air Compressors	2	8.00	78	0.48
Paving Building 1	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 1	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 1	Cranes	0	0.00	231	0.29
Paving Building 1	Forklifts	2	8.00	89	0.20

Paving Building 1	Generator Sets	0	8.00	84	0.74
Paving Building 1	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 1	Pavers	1	8.00	130	0.42
Paving Building 1	Paving Equipment	1	8.00	132	0.36
Paving Building 1	Plate Compactors	2	8.00	8	0.43
Paving Building 1	Rollers	1	8.00	80	0.38
Paving Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 1	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 1	Signal Boards	2	8.00	6	0.82
Paving Building 1	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 1	Surfacing Equipment	0	8.00	263	0.30
Paving Building 1	Trenchers	1	8.00	78	0.50
Paving Building 1	Welders	1	8.00	46	0.45
Construction Building 3	Air Compressors	3	8.00	78	0.48
Construction Building 3	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 3	Cranes	1	8.00	231	0.29
Construction Building 3	Forklifts	3	8.00	89	0.20
Construction Building 3	Generator Sets	0	8.00	84	0.74
Construction Building 3	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 3	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 3	Signal Boards	2	8.00	6	0.82
Construction Building 3	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 3	Welders	2	8.00	46	0.45
Paving Building 2	Air Compressors	2	8.00	78	0.48
Paving Building 2	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 2	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 2	Cranes	0	8.00	231	0.29
Paving Building 2	Forklifts	2	8.00	89	0.20
Paving Building 2	Generator Sets	0	8.00	84	0.74
Paving Building 2	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 2	Pavers	1	8.00	130	0.42
Paving Building 2	Paving Equipment	1	8.00	132	0.36
Paving Building 2	Plate Compactors	2	8.00	8	0.43
Paving Building 2	Rollers	1	8.00	80	0.38
Paving Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 2	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 2	Signal Boards	2	8.00	6	0.82
Paving Building 2	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 2	Surfacing Equipment	0	8.00	263	0.30
Paving Building 2	Trenchers	1	8.00	78	0.50
Paving Building 2	Welders	1	8.00	46	0.45

Paving Building 3	Air Compressors	2	8.00	78	0.48
Paving Building 3	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 3	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 3	Cranes	0	8.00	231	0.29
Paving Building 3	Forklifts	2	8.00	89	0.20
Paving Building 3	Generator Sets	0	8.00	84	0.74
Paving Building 3	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 3	Pavers	1	8.00	130	0.42
Paving Building 3	Paving Equipment	1	8.00	132	0.36
Paving Building 3	Plate Compactors	2	8.00	8	0.43
Paving Building 3	Rollers	1	8.00	80	0.38
Paving Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 3	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 3	Signal Boards	2	8.00	6	0.82
Paving Building 3	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 3	Surfacing Equipment	0	8.00	263	0.30
Paving Building 3	Trenchers	1	8.00	78	0.50
Paving Building 3	Welders	1	8.00	46	0.45

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	40.00	4.00	5,100.00	0.00	0.25	0.25	LD_Mix	HDT_Mix	HHDT
Grading Building 1-3	15	60.00	4.00	31,429.00	0.00	0.25	0.25	LD_Mix	HDT_Mix	HHDT
Podium Building 1	21	75.00	70.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Podium Building 2	21	75.00	70.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Podium Building 3	21	75.00	70.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Construction Building	16	225.00	70.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Construction Building	16	225.00	70.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Paving Building 1	19	70.00	24.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Construction Building	16	225.00	70.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Paving Building 2	19	70.00	24.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT
Paving Building 3	19	70.00	24.00	0.00	0.00	0.25	0.00	LD_Mix	HDT_Mix	HHDT

### **3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

### **3.2 Demolition - 2020**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					2.8116	0.0000	2.8116	0.4257	0.0000	0.4257						0.0000	
Off-Road	3.2782	27.6961	28.0463	0.0486		1.4345	1.4345		1.3918	1.3918						4,601.8110	
Total	3.2782	27.6961	28.0463	0.0486	2.8116	1.4345	4.2461	0.4257	1.3918	1.8175						4,601.8110	

#### 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	0.1195	5.6951	1.0208	6.1000e-003	0.0144	4.0300e-003	0.0184	4.0500e-003	3.8500e-003	7.9000e-003						661.7779	
Vendor	6.6300e-003	0.2396	0.0710	2.3000e-004	1.0300e-003	2.2000e-004	1.2400e-003	3.1000e-004	2.1000e-004	5.1000e-004						24.6835	
Worker	0.0413	0.0127	0.1902	9.0000e-005	3.9000e-004	2.6000e-004	6.6000e-004	1.6000e-004	2.4000e-004	4.0000e-004						9.1230	
Total	0.1675	5.9473	1.2820	6.4200e-003	0.0158	4.5100e-003	0.0203	4.5200e-003	4.3000e-003	8.8100e-003						695.5843	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					1.0965	0.0000	1.0965	0.1660	0.0000	0.1660						0.0000	
Off-Road	1.0969	22.9690	30.6356	0.0486		1.3999	1.3999		1.3999	1.3999						4,601.8110	
Total	1.0969	22.9690	30.6356	0.0486	1.0965	1.3999	2.4964	0.1660	1.3999	1.5659						4,601.8110	

#### 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	0.1195	5.6951	1.0208	6.1000e-003	0.0144	4.0300e-003	0.0184	4.0500e-003	3.8500e-003	7.9000e-003						661.7779	
Vendor	6.6300e-003	0.2396	0.0710	2.3000e-004	1.0300e-003	2.2000e-004	1.2400e-003	3.1000e-004	2.1000e-004	5.1000e-004						24.6835	

Worker	0.0413	0.0127	0.1902	9.0000e-005	3.9000e-004	2.6000e-004	6.6000e-004	1.6000e-004	2.4000e-004	4.0000e-004						9.1230
Total	0.1675	5.9473	1.2820	6.4200e-003	0.0158	4.5100e-003	0.0203	4.5200e-003	4.3000e-003	8.8100e-003						695.5843

### 3.3 Grading Building 1-3 - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0950	0.0000	0.0950	0.0144	0.0000	0.0144						0.0000
Off-Road	3.3857	33.2735	28.2870	0.0638		1.3337	1.3337		1.2443	1.2443						6,084.4515
Total	3.3857	33.2735	28.2870	0.0638	0.0950	1.3337	1.4287	0.0144	1.2443	1.2587						6,084.4515

#### 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	0.2390	11.3861	2.0409	0.0122	0.0386	8.0600e-003	0.0466	0.0105	7.7100e-003	0.0182						1,323.0926
Vendor	6.6300e-003	0.2396	0.0710	2.3000e-004	1.0300e-003	2.2000e-004	1.2400e-003	3.1000e-004	2.1000e-004	5.1000e-004						24.6835
Worker	0.0620	0.0190	0.2853	1.4000e-004	5.9000e-004	3.9000e-004	9.9000e-004	2.3000e-004	3.6000e-004	6.0000e-004						13.6845
Total	0.3076	11.6447	2.3973	0.0126	0.0402	8.6700e-003	0.0489	0.0111	8.2800e-003	0.0193						1,361.4606

#### 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					0.0370	0.0000	0.0370	5.6100e-003	0.0000	5.6100e-003						0.0000
Off-Road	1.6095	30.8777	38.9668	0.0638		1.4439	1.4439		1.4439	1.4439						6,084.4515
Total	1.6095	30.8777	38.9668	0.0638	0.0370	1.4439	1.4810	5.6100e-003	1.4439	1.4496						6,084.4515

#### 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	0.2390	11.3861	2.0409	0.0122	0.0386	8.0600e-003	0.0466	0.0105	7.7100e-003	0.0182						1,323.0926	
Vendor	6.6300e-003	0.2396	0.0710	2.3000e-004	1.0300e-003	2.2000e-004	1.2400e-003	3.1000e-004	2.1000e-004	5.1000e-004						24.6835	
Worker	0.0620	0.0190	0.2853	1.4000e-004	5.9000e-004	3.9000e-004	9.9000e-004	2.3000e-004	3.6000e-004	6.0000e-004						13.6845	
Total	0.3076	11.6447	2.3973	0.0126	0.0402	8.6700e-003	0.0489	0.0111	8.2800e-003	0.0193						1,361.4606	

### **3.3 Grading Building 1-3 - 2021**

### **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					0.0950	0.0000	0.0950	0.0144	0.0000	0.0144						0.0000
Off-Road	3.1361	29.9190	28.1172	0.0638		1.1911	1.1911		1.1110	1.1110						6,089.230 7
<b>Total</b>	<b>3.1361</b>	<b>29.9190</b>	<b>28.1172</b>	<b>0.0638</b>	<b>0.0950</b>	<b>1.1911</b>	<b>1.2860</b>	<b>0.0144</b>	<b>1.1110</b>	<b>1.1254</b>						<b>6,089.230 7</b>

### **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	0.2244	11.0249	1.9519	0.0121	0.0686	6.9800e-003	0.0756	0.0179	6.6700e-003	0.0246						1,310.6366
Vendor	6.1000e-003	0.2312	0.0660	2.3000e-004	1.0300e-003	1.3000e-004	1.1600e-003	3.1000e-004	1.2000e-004	4.3000e-004						24.4608
Worker	0.0566	0.0167	0.2564	1.4000e-004	5.9000e-004	3.8000e-004	9.8000e-004	2.3000e-004	3.5000e-004	5.9000e-004						13.2610
Total	0.2872	11.2728	2.2743	0.0124	0.0702	7.4900e-003	0.0777	0.0184	7.1400e-003	0.0256						1,348.3584

#### **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				0.0370	0.0000	0.0370	5.6100e-003	0.0000	5.6100e-003						0.0000
Off-Road	1.6095	30.8777	38.9668	0.0638		1.4439	1.4439		1.4439	1.4439						6,089.2307
Total	1.6095	30.8777	38.9668	0.0638	0.0370	1.4439	1.4810	5.6100e-003	1.4439	1.4496						6,089.2307

#### 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	0.2244	11.0249	1.9519	0.0121	0.0686	6.9800e-003	0.0756	0.0179	6.6700e-003	0.0246						1,310.6366
Vendor	6.1000e-003	0.2312	0.0660	2.3000e-004	1.0300e-003	1.3000e-004	1.1600e-003	3.1000e-004	1.2000e-004	4.3000e-004						24.4608
Worker	0.0566	0.0167	0.2564	1.4000e-004	5.9000e-004	3.8000e-004	9.8000e-004	2.3000e-004	3.5000e-004	5.9000e-004						13.2610
Total	0.2872	11.2728	2.2743	0.0124	0.0702	7.4900e-003	0.0777	0.0184	7.1400e-003	0.0256						1,348.3584

#### **3.4 Podium Building 1 - 2020**

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day								lb/day							
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	4.3700	36.7323	36.4282	0.0608		1.9453	1.9453		1.8702	1.8702						5,669.4461
Total	4.3700	36.7323	36.4282	0.0608	0.0000	1.9453	1.9453	0.0000	1.8702	1.8702						5,669.4461

##### 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
Vendor	0.1160	4.1931	1.2428	4.0100e-003	0.0180	3.7700e-003	0.0218	5.3700e-003	3.6100e-003	8.9800e-003						431.9604
Worker	0.0775	0.0237	0.3566	1.8000e-004	7.4000e-004	4.9000e-004	1.2300e-003	2.9000e-004	4.5000e-004	7.5000e-004						17.1056

Total	0.1935	4.2169	1.5994	4.1900e-003	0.0188	4.2600e-003	0.0230	5.6600e-003	4.0600e-003	9.7300e-003						449.0660
-------	--------	--------	--------	-------------	--------	-------------	--------	-------------	-------------	-------------	--	--	--	--	--	----------

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.4461
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.4461

#### 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
Vendor	0.1160	4.1931	1.2428	4.0100e-003	0.0180	3.7700e-003	0.0218	5.3700e-003	3.6100e-003	8.9800e-003						431.9604
Worker	0.0775	0.0237	0.3566	1.8000e-004	7.4000e-004	4.9000e-004	1.2300e-003	2.9000e-004	4.5000e-004	7.5000e-004						17.1056
Total	0.1935	4.2169	1.5994	4.1900e-003	0.0188	4.2600e-003	0.0230	5.6600e-003	4.0600e-003	9.7300e-003						449.0660

#### **3.4 Podium Building 1 - 2021**

##### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	4.0400	33.9945	36.1281	0.0608		1.7222	1.7222		1.6551	1.6551						5,669.0337
Total	4.0400	33.9945	36.1281	0.0608	0.0000	1.7222	1.7222	0.0000	1.6551	1.6551						5,669.0337

##### 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
Vendor	0.1067	4.0462	1.1532	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642
Worker	0.0708	0.0208	0.3205	1.7000e-004	7.4000e-004	4.8000e-004	1.2200e-003	2.9000e-004	4.4000e-004	7.3000e-004						16.5763
Total	0.1775	4.0670	1.4757	4.1400e-003	0.0188	2.7600e-003	0.0215	5.6600e-003	2.6200e-003	8.2800e-003						444.6405

### **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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.0337
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.0337

### **Mitigated Construction Off-Site**

### **3.5 Podium Building 2 - 2020**

### **Unmitigated Construction On-Site**

Off-Road	4.3700	36.7323	36.4282	0.0608		1.9453	1.9453		1.8702	1.8702				5,669.446	1
Total	4.3700	36.7323	36.4282	0.0608	0.0000	1.9453	1.9453	0.0000	1.8702	1.8702				5,669.446	1

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Vendor	0.1160	4.1931	1.2428	4.0100e-003	0.0180	3.7700e-003	0.0218	5.3700e-003	3.6100e-003	8.9800e-003						431.9604	
Worker	0.0775	0.0237	0.3566	1.8000e-004	7.4000e-004	4.9000e-004	1.2300e-003	2.9000e-004	4.5000e-004	7.5000e-004						17.1056	
Total	0.1935	4.2169	1.5994	4.1900e-003	0.0188	4.2600e-003	0.0230	5.6600e-003	4.0600e-003	9.7300e-003						449.0660	

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.446	
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.446	
																1	

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Vendor	0.1160	4.1931	1.2428	4.0100e-003	0.0180	3.7700e-003	0.0218	5.3700e-003	3.6100e-003	8.9800e-003						431.9604	
Worker	0.0775	0.0237	0.3566	1.8000e-004	7.4000e-004	4.9000e-004	1.2300e-003	2.9000e-004	4.5000e-004	7.5000e-004						17.1056	
Total	0.1935	4.2169	1.5994	4.1900e-003	0.0188	4.2600e-003	0.0230	5.6600e-003	4.0600e-003	9.7300e-003						449.0660	
																1	

#### 3.5 Podium Building 2 - 2021

### **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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	4.0400	33.9945	36.1281	0.0608		1.7222	1.7222		1.6551	1.6551						5,669.0337
<b>Total</b>	<b>4.0400</b>	<b>33.9945</b>	<b>36.1281</b>	<b>0.0608</b>	<b>0.0000</b>	<b>1.7222</b>	<b>1.7222</b>	<b>0.0000</b>	<b>1.6551</b>	<b>1.6551</b>						<b>5,669.0337</b>

## 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
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642
Worker	0.0708	0.0208	0.3205	1.7000e-004	7.4000e-004	4.8000e-004	1.2200e-003	2.9000e-004	4.4000e-004	7.3000e-004						16.5763
Total	0.1775	4.0670	1.4757	4.1400e-003	0.0168	2.7600e-003	0.0215	5.6800e-003	2.6200e-003	8.2800e-003						444.6405

#### **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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.0337
<b>Total</b>	<b>1.3655</b>	<b>28.0166</b>	<b>37.2688</b>	<b>0.0608</b>	<b>0.0000</b>	<b>1.6967</b>	<b>1.6967</b>	<b>0.0000</b>	<b>1.6967</b>	<b>1.6967</b>						<b>5,669.0337</b>

### **Mitigated Construction Off-Site**

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003					428.0642
Worker	0.0708	0.0208	0.3205	1.7000e-004	7.4000e-004	4.8000e-004	1.2200e-003	2.9000e-004	4.4000e-004	7.3000e-004					16.5763
Total	0.1775	4.0670	1.4757	4.1400e-003	0.0188	2.7600e-003	0.0215	5.6600e-003	2.6200e-003	8.2800e-003					444.6405

### 3.6 Podium Building 3 - 2021

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	4.0400	33.9945	36.1281	0.0608		1.7222	1.7222		1.6551	1.6551						5,669.0337	
Total	4.0400	33.9945	36.1281	0.0608	0.0000	1.7222	1.7222	0.0000	1.6551	1.6551						5,669.0337	

#### 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	
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642	
Worker	0.0708	0.0208	0.3205	1.7000e-004	7.4000e-004	4.8000e-004	1.2200e-003	2.9000e-004	4.4000e-004	7.3000e-004						16.5763	
Total	0.1775	4.0670	1.4757	4.1400e-003	0.0188	2.7600e-003	0.0215	5.6600e-003	2.6200e-003	8.2800e-003						444.6405	

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	1.3655	28.0166	37.2688	0.0608		1.6967	1.6967		1.6967	1.6967						5,669.0337	
Total	1.3655	28.0166	37.2688	0.0608	0.0000	1.6967	1.6967	0.0000	1.6967	1.6967						5,669.0337	

### 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	
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642	
Worker	0.0708	0.0208	0.3205	1.7000e-004	7.4000e-004	4.8000e-004	1.2200e-003	2.9000e-004	4.4000e-004	7.3000e-004						16.5763	
Total	0.1775	4.0670	1.4757	4.1400e-003	0.0188	2.7600e-003	0.0215	5.6600e-003	2.6200e-003	8.2800e-003						444.6405	

### **3.7 Construction Building 1 - 2021**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.5720	30.3075	28.8512	0.0515		1.5295	1.5295		1.4652	1.4652						4,854.5440	
Total	3.5720	30.3075	28.8512	0.0515		1.5295	1.5295		1.4652	1.4652						4,854.5440	

#### 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	
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642	
Worker	0.2124	0.0625	0.9814	5.1000e-004	2.2200e-003	1.4400e-003	3.6600e-003	8.8000e-004	1.3200e-003	2.2000e-003						49.7288	
Total	0.3191	4.1087	2.1166	4.4800e-003	0.0202	3.7200e-003	0.0240	6.2500e-003	3.5000e-003	9.7500e-003						477.7930	

#### 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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.544	0
Total	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.544	0

#### 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	
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642	
Worker	0.2124	0.0625	0.9614	5.1000e-004	2.2200e-003	1.4400e-003	3.6600e-003	8.8000e-004	1.3200e-003	2.2000e-003						49.7288	
Total	0.3191	4.1087	2.1166	4.4800e-003	0.0202	3.7200e-003	0.0240	6.2500e-003	3.5000e-003	9.7500e-003						477.7930	

#### **3.7 Construction Building 1 - 2022**

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	3.2532	27.0169	28.5388	0.0515		1.3070	1.3070		1.2530	1.2530						4,854.887	8
Total	3.2532	27.0169	28.5388	0.0515		1.3070	1.3070		1.2530	1.2530						4,854.887	8

##### 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	
Vendor	0.0990	3.9483	1.0792	3.9300e-003	0.0180	1.9400e-003	0.0200	5.3700e-003	1.8500e-003	7.2300e-003						424.3897	

Worker	0.1948	0.0551	0.8683	4.9000e-004	2.2200e-003	1.4000e-003	3.6200e-003	8.8000e-004	1.2900e-003	2.1700e-003						48.0679
Total	0.2938	4.0034	1.9474	4.4200e-003	0.0202	3.3400e-003	0.0236	6.2500e-003	3.1400e-003	9.4000e-003						472.4576

#### 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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.8878
Total	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.8878

#### 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
Vendor	0.0990	3.9483	1.0792	3.9300e-003	0.0180	1.9400e-003	0.0200	5.3700e-003	1.8500e-003	7.2300e-003						424.3897
Worker	0.1948	0.0551	0.8683	4.9000e-004	2.2200e-003	1.4000e-003	3.6200e-003	8.8000e-004	1.2900e-003	2.1700e-003						48.0679
Total	0.2938	4.0034	1.9474	4.4200e-003	0.0202	3.3400e-003	0.0236	6.2500e-003	3.1400e-003	9.4000e-003						472.4576

#### **3.8 Construction Building 2 - 2021**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5720	30.3075	28.8512	0.0515		1.5295	1.5295		1.4652	1.4652						4,854.5440
Total	3.5720	30.3075	28.8512	0.0515		1.5295	1.5295		1.4652	1.4652						4,854.5440

#### 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
Vendor	0.1067	4.0462	1.1552	3.9700e-003	0.0180	2.2800e-003	0.0203	5.3700e-003	2.1800e-003	7.5500e-003						428.0642
Worker	0.2124	0.0625	0.9614	5.1000e-004	2.2200e-003	1.4400e-003	3.6600e-003	8.8000e-004	1.3200e-003	2.2000e-003						49.7288
Total	0.3191	4.1087	2.1166	4.4800e-003	0.0202	3.7200e-003	0.0240	6.2500e-003	3.5000e-003	9.7500e-003						477.7930

### **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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079							4,854.5440
<b>Total</b>	<b>1.2351</b>	<b>25.3057</b>	<b>31.8299</b>	<b>0.0515</b>		<b>1.5079</b>	<b>1.5079</b>		<b>1.5079</b>	<b>1.5079</b>							<b>4,854.5440</b>

### **Mitigated Construction Off-Site**

3.8 Construction Building 2 - 2022

### **Unmitigated Construction On-Site**

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

Category	lb/day								lb/day						
Off-Road	3.2532	27.0169	28.5388	0.0515		1.3070	1.3070		1.2530	1.2530					4,854.887 8
Total	3.2532	27.0169	28.5388	0.0515		1.3070	1.3070		1.2530	1.2530					4,854.887 8

#### 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	
Vendor	0.0990	3.9483	1.0792	3.9300e-003	0.0180	1.9400e-003	0.0200	5.3700e-003	1.8500e-003	7.2300e-003					424.3897	
Worker	0.1948	0.0551	0.8683	4.9000e-004	2.2200e-003	1.4000e-003	3.6200e-003	8.8000e-004	1.2900e-003	2.1700e-003					48.0679	
Total	0.2938	4.0034	1.9474	4.4200e-003	0.0202	3.3400e-003	0.0236	6.2500e-003	3.1400e-003	9.4000e-003					472.4576	

#### 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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079					4,854.887 8	
Total	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079					4,854.887 8	

#### 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	
Vendor	0.0990	3.9483	1.0792	3.9300e-003	0.0180	1.9400e-003	0.0200	5.3700e-003	1.8500e-003	7.2300e-003					424.3897	
Worker	0.1948	0.0551	0.8683	4.9000e-004	2.2200e-003	1.4000e-003	3.6200e-003	8.8000e-004	1.2900e-003	2.1700e-003					48.0679	

Total	0.2938	4.0034	1.9474	4.4200e-003	0.0202	3.3400e-003	0.0236	6.2500e-003	3.1400e-003	9.4000e-003						472.4576
-------	--------	--------	--------	-------------	--------	-------------	--------	-------------	-------------	-------------	--	--	--	--	--	----------

### 3.8 Construction Building 2 - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0178	24.6869	28.3357	0.0515		1.1323	1.1323		1.0857	1.0857						4,854.7618
Total	3.0178	24.6869	28.3357	0.0515		1.1323	1.1323		1.0857	1.0857						4,854.7618

#### 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
Vendor	0.0775	3.4314	0.9468	3.7500e-003	0.0180	1.2700e-003	0.0193	5.3700e-003	1.2100e-003	6.5800e-003						405.8657
Worker	0.1791	0.0489	0.7853	4.8000e-004	2.2200e-003	1.3800e-003	3.6000e-003	8.8000e-004	1.2700e-003	2.1500e-003						46.3858
Total	0.2566	3.4803	1.7321	4.2300e-003	0.0202	2.6500e-003	0.0229	6.2500e-003	2.4800e-003	8.7300e-003						452.2514

#### 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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.7618
Total	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.7618

#### 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	
Vendor	0.0775	3.4314	0.9468	3.7500e-003	0.0180	1.2700e-003	0.0193	5.3700e-003	1.2100e-003	6.5800e-003						405.8857	
Worker	0.1791	0.0489	0.7853	4.8000e-004	2.2200e-003	1.3800e-003	3.6000e-003	8.8000e-004	1.2700e-003	2.1500e-003						46.3858	
Total	0.2566	3.4803	1.7321	4.2300e-003	0.0202	2.6500e-003	0.0229	6.2500e-003	2.4800e-003	8.7300e-003						452.2514	

### 3.9 Architectural Coating - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	17.0657						0.0000	0.0000		0.0000	0.0000					0.0000	
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000	
Total	17.0657	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000	

#### 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	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	

#### 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	17.0657						0.0000	0.0000		0.0000	0.0000					0.0000	

Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000					0.0000
Total	17.0657	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000					0.0000

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

#### **3.9 Architectural Coating - 2023**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Archit. Coating	17.0657					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	17.0657	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

#### 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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

#### **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	17.0657						0.0000	0.0000		0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000						0.0000
<b>Total</b>	<b>17.0657</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>						<b>0.0000</b>

## 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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>							

### **3.10 Paving Building 1 - 2022**

#### **Unmitigated Construction On-Site**

### **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
Vendor	0.0340	1.3537	0.3700	1.3500e-003	6.1800e-003	6.7000e-004	6.8400e-003	1.8400e-003	6.4000e-004	2.4800e-003					145.5050
Worker	0.0606	0.0172	0.2701	1.5000e-004	6.9000e-004	4.4000e-004	1.1300e-003	2.7000e-004	4.0000e-004	6.8000e-004					14.9545
Total	0.0946	1.3709	0.6401	1.5000e-003	6.8700e-003	1.1100e-003	7.9700e-003	2.1100e-003	1.0400e-003	3.1600e-003					160.4595

#### 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	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4665	
Paving	0.0000				0.0000	0.0000		0.0000	0.0000							0.0000	
Total	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4665	

#### 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	
Vendor	0.0340	1.3537	0.3700	1.3500e-003	6.1800e-003	6.7000e-004	6.8400e-003	1.8400e-003	6.4000e-004	2.4800e-003						145.5050	
Worker	0.0606	0.0172	0.2701	1.5000e-004	6.9000e-004	4.4000e-004	1.1300e-003	2.7000e-004	4.0000e-004	6.8000e-004						14.9545	
Total	0.0946	1.3709	0.6401	1.5000e-003	6.8700e-003	1.1100e-003	7.9700e-003	2.1100e-003	1.0400e-003	3.1600e-003						160.4595	

#### **3.11 Construction Building 3 - 2022**

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.2532	27.0169	28.5388	0.0515		1.3070	1.3070		1.2530	1.2530						4,854.8878	
Total	3.2532	27.0169	28.5388	0.0515		1.3070	1.3070		1.2530	1.2530						4,854.8878	

### 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	
Vendor	0.0990	3.9483	1.0792	3.9300e-003	0.0180	1.9400e-003	0.0200	5.3700e-003	1.8500e-003	7.2300e-003						424.3897	
Worker	0.1948	0.0551	0.8683	4.9000e-004	2.2200e-003	1.4000e-003	3.6200e-003	8.8000e-004	1.2900e-003	2.1700e-003						48.0679	
Total	0.2938	4.0034	1.9474	4.4200e-003	0.0202	3.3400e-003	0.0236	6.2500e-003	3.1400e-003	9.4000e-003						472.4576	

### 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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.8878	
Total	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.8878	

### 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	
Vendor	0.0990	3.9483	1.0792	3.9300e-003	0.0180	1.9400e-003	0.0200	5.3700e-003	1.8500e-003	7.2300e-003						424.3897	
Worker	0.1948	0.0551	0.8683	4.9000e-004	2.2200e-003	1.4000e-003	3.6200e-003	8.8000e-004	1.2900e-003	2.1700e-003						48.0679	
Total	0.2938	4.0034	1.9474	4.4200e-003	0.0202	3.3400e-003	0.0236	6.2500e-003	3.1400e-003	9.4000e-003						472.4576	

### **3.11 Construction Building 3 - 2023**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	3.0178	24.6869	28.3357	0.0515		1.1323	1.1323		1.0857	1.0857						4,854.761 8	
Total	3.0178	24.6869	28.3357	0.0515		1.1323	1.1323		1.0857	1.0857						4,854.761 8	

#### 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	
Vendor	0.0775	3.4314	0.9468	3.7500e-003	0.0180	1.2700e-003	0.0193	5.3700e-003	1.2100e-003	6.5800e-003						405.8657	
Worker	0.1791	0.0489	0.7853	4.8000e-004	2.2200e-003	1.3800e-003	3.6000e-003	8.8000e-004	1.2700e-003	2.1500e-003						46.3858	
Total	0.2566	3.4803	1.7321	4.2300e-003	0.0202	2.6500e-003	0.0229	6.2500e-003	2.4800e-003	8.7300e-003						452.2514	

#### 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	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.761 8	
Total	1.2351	25.3057	31.8299	0.0515		1.5079	1.5079		1.5079	1.5079						4,854.761 8	

#### 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	
Vendor	0.0775	3.4314	0.9468	3.7500e-003	0.0180	1.2700e-003	0.0193	5.3700e-003	1.2100e-003	6.5800e-003						405.8657	

Worker	0.1791	0.0489	0.7853	4.8000e-004	2.2200e-003	1.3800e-003	3.6000e-003	8.8000e-004	1.2700e-003	2.1500e-003						46.3858
Total	0.2566	3.4803	1.7321	4.2300e-003	0.0202	2.6500e-003	0.0229	6.2500e-003	2.4800e-003	8.7300e-003						452.2514

### 3.12 Paving Building 2 - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9212	24.6043	29.1609	0.0501		1.2095	1.2095		1.1486	1.1486						4,712.4905
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	2.9212	24.6043	29.1609	0.0501		1.2095	1.2095		1.1486	1.1486						4,712.4905

#### 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
Vendor	0.0266	1.1765	0.3246	1.2900e-003	6.1800e-003	4.3000e-004	6.6100e-003	1.8400e-003	4.2000e-004	2.2600e-003						139.1539
Worker	0.0557	0.0152	0.2443	1.5000e-004	6.9000e-004	4.3000e-004	1.1200e-003	2.7000e-004	3.9000e-004	6.7000e-004						14.4311
Total	0.0823	1.1917	0.5689	1.4400e-003	6.8700e-003	8.6000e-004	7.7300e-003	2.1100e-003	8.1000e-004	2.9300e-003						153.5851

#### 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	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4905
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436						4,712.4905

#### Mitigated Construction Off-Site

3.13 Paving Building 3 - 2023

### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9212	24.6043	29.1609	0.0501		1.2095	1.2095		1.1486	1.1486						4,712.4905
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>2.9212</b>	<b>24.6043</b>	<b>29.1609</b>	<b>0.0501</b>		<b>1.2095</b>	<b>1.2095</b>		<b>1.1486</b>	<b>1.1486</b>						<b>4,712.4905</b>

### **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
Vendor	0.0266	1.1765	0.3246	1.2900e-003	6.1800e-003	4.3000e-004	6.6100e-003	1.8400e-003	4.2000e-004	2.2600e-003						139.1539
Worker	0.0557	0.0152	0.2443	1.5000e-004	6.9000e-004	4.3000e-004	1.1200e-003	2.7000e-004	3.9000e-004	6.7000e-004						14.4311
Total	0.0823	1.1917	0.5689	1.4400e-003	6.8700e-003	8.6000e-004	7.7300e-003	2.1100e-003	8.1000e-004	2.9300e-003						153.5851

#### **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	1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436		4,712.490	
Paving		0.0000					0.0000	0.0000		0.0000	0.0000		0.0000	
Total		1.1181	23.5046	31.2888	0.0501		1.4436	1.4436		1.4436	1.4436		4,712.490	
														5

**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
Vendor	0.0266	1.1765	0.3246	1.2900e-003	6.1800e-003	4.3000e-004	6.6100e-003	1.8400e-003	4.2000e-004	2.2600e-003						139.1539
Worker	0.0557	0.0152	0.2443	1.5000e-004	6.9000e-004	4.3000e-004	1.1200e-003	2.7000e-004	3.9000e-004	6.7000e-004						14.4311
Total	0.0823	1.1917	0.5689	1.4400e-003	6.8700e-003	8.6000e-004	7.7300e-003	2.1100e-003	8.1000e-004	2.9300e-003						153.5851

## Paseo Marina Buildout - Los Angeles-South Coast County, Winter

**Paseo Marina Buildout**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	609.00	Space	5.48	243,600.00	0
Unenclosed Parking with Elevator	608.00	Space	5.47	243,200.00	0
High Turnover (Sit Down Restaurant)	13.65	1000sqft	0.31	13,650.00	0
Apartments Mid Rise	658.00	Dwelling Unit	17.32	647,029.00	1882
Strip Mall	13.65	1000sqft	0.31	13,650.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - RPS of 33.3% for LADWP

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Vehicle Trips - Site Specific

Woodstoves - Site Specific

Energy Use - Adjustment for 2016 Title 24

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	1.75
tblEnergyUse	LightingElect	2.63	1.75
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	0.43
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblFireplaces	NumberGas	559.30	592.00
tblFireplaces	NumberNoFireplace	65.80	66.00
tblFireplaces	NumberWood	32.90	0.00
tblFleetMix	FleetMixLandUseSubType	Enclosed Parking with Elevator	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Unenclosed Parking with Elevator	Enclosed Parking with Elevator
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	Strip Mall
tblFleetMix	FleetMixLandUseSubType	Strip Mall	Unenclosed Parking with Elevator
tblLandUse	BuildingSpaceSquareFeet	658,000.00	647,029.00
tblLandUse	LandUseSquareFeet	658,000.00	647,029.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	840
tblProjectCharacteristics	OperationalYear	2018	2023
tblStationaryGeneratorsPumpsEF	NOX_EF	2.85	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.1000e-004
tblVehicleTrips	ST_TR	42.04	40.51
tblVehicleTrips	SU_TR	20.43	19.69
tblVehicleTrips	WD_TR	44.32	42.71
tblWoodstoves	NumberCatalytic	32.90	0.00
tblWoodstoves	NumberNoncatalytic	32.90	0.00

## 2.0 Emissions Summary

### 2.2 Overall Operational

#### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.5365	10.4473	58.6038	0.0656		1.0950	1.0950		1.0950	1.0950						12,711.3561
Energy	0.3108	2.7069	1.5054	0.0170		0.2147	0.2147		0.2147	0.2147						3,410.4722
Mobile	10.2440	43.8186	125.6354	0.4636	40.4185	0.3611	40.7796	10.8162	0.3358	11.1521						47,320.8718
Stationary	0.1344	0.4780	2.4855	4.6800e-003		0.0191	0.0191		0.0191	0.0191						500.4192
<b>Total</b>	<b>28.2257</b>	<b>57.4508</b>	<b>188.2301</b>	<b>0.5508</b>	<b>40.4185</b>	<b>1.6899</b>	<b>42.1084</b>	<b>10.8162</b>	<b>1.6646</b>	<b>12.4809</b>						<b>63,943.1193</b>

#### 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	16.3874	0.6271	54.4250	2.8800e-003		0.3010	0.3010		0.3010	0.3010						100.3875
Energy	0.2967	2.5855	1.4470	0.0162		0.2050	0.2050		0.2050	0.2050						3,255.8180
Mobile	7.8054	30.6892	65.6972	0.2011	15.9756	0.1676	16.1432	4.2752	0.1558	4.4310						20,566.1362
Stationary	0.1344	0.4780	2.4855	4.6800e-003		0.0191	0.0191		0.0191	0.0191						500.4192
<b>Total</b>	<b>24.6239</b>	<b>34.3798</b>	<b>124.0546</b>	<b>0.2248</b>	<b>15.9756</b>	<b>0.6927</b>	<b>16.6683</b>	<b>4.2752</b>	<b>0.6809</b>	<b>4.9560</b>						<b>24,422.7609</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	12.76	40.16	34.09	59.19	60.47	59.01	60.42	60.47	59.10	60.29	0.00	0.00	0.00	0.00	0.00	61.81

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.8054	30.6892	65.6972	0.2011	15.9756	0.1676	16.1432	4.2752	0.1558	4.4310						20,566.13 62
Unmitigated	10.2440	43.8186	125.6354	0.4636	40.4185	0.3611	40.7796	10.8162	0.3358	11.1521						47,320.87 18

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartments Mid Rise	4,375.70	4,204.62	3855.88	14,615,159		5,776,698	
Enclosed Parking with Elevator	0.00	0.00	0.00				
High Turnover (Sit Down Restaurant)	1,735.60	2,161.75	1799.62	2,460,757		972,624	
Strip Mall	582.99	552.96	268.77	1,015,629		401,431	
Unenclosed Parking with Elevator	0.00	0.00	0.00				
Total	6,694.29	6,919.33	5,924.26	18,091,545		7,150,753	

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid 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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Unenclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

#### 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	lb/day										lb/day					
NaturalGas Mitigated	0.2967	2.5855	1.4470	0.0162			0.2050	0.2050		0.2050	0.2050					3,255.8180
NaturalGas Unmitigated	0.3108	2.7069	1.5054	0.0170			0.2147	0.2147		0.2147	0.2147					3,410.4722

#### 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					
Apartments Mid Rise	20118.4	0.2170	1.8541	0.7890	0.0118		0.1499	0.1499		0.1499	0.1499					2,380.9373	
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000					0.0000	
High Turnover (Sit Down Restaurant)	8637.65	0.0932	0.8468	0.7113	5.0800e-003		0.0644	0.0644		0.0644	0.0644					1,022.2323	
Strip Mall	61.7055	6.7000e-004	6.0500e-003	5.0800e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004					7.3026	
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000					0.0000	
Total		0.3108	2.7069	1.5054	0.0170		0.2147	0.2147		0.2147	0.2147					3,410.4722	

### 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						
Apartments Mid Rise	18.9775	0.2047	1.7489	0.7442	0.0112		0.1414	0.1414		0.1414	0.1414						2,245.9117	
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000	
High Turnover (Sit Down Restaurant)	8.47613	0.0914	0.8310	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632						1,003.1172	
Strip Mall	0.0573674	6.2000e-004	5.6200e-003	4.7200e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004						6.7892	
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000	
<b>Total</b>		<b>0.2967</b>	<b>2.5855</b>	<b>1.4470</b>	<b>0.0162</b>		<b>0.2050</b>	<b>0.2050</b>		<b>0.2050</b>	<b>0.2050</b>						<b>3,255.8180</b>	

## **6.0 Area Detail**

## **6.1 Mitigation Measures Area**

## No Hearths Installed

## 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	1.2156					0.0000	0.0000		0.0000	0.0000							0.0000
Consumer Products	13.5241					0.0000	0.0000		0.0000	0.0000							0.0000
Hearth	1.1492	9.8202	4.1788	0.0627		0.7940	0.7940		0.7940	0.7940							12,610.9686
Landscaping	1.6476	0.6271	54.4250	2.8800e-003		0.3010	0.3010		0.3010	0.3010							100.3875
<b>Total</b>	<b>17.5365</b>	<b>10.4473</b>	<b>58.6038</b>	<b>0.0656</b>		<b>1.0950</b>	<b>1.0950</b>		<b>1.0950</b>	<b>1.0950</b>							<b>12,711.3560</b>

## Mitigated

## 10.1 Stationary Sources

### Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day												lb/day			
Emergency Generator - Diesel (600 - 750 HP)	0.1344	0.4780	2.4855	4.6800e-003			0.0191	0.0191		0.0191	0.0191					500.4192
Total	0.1344	0.4780	2.4855	4.6800e-003			0.0191	0.0191		0.0191	0.0191					500.4192

## **Appendix B.3**

---

### Greenhouse Gas Worksheets

**Annual Construction**

Year	MTCO2e
2020	3,232
2021	3,784
2022	2,103
2023	847
Total	9,966
	332

Area							Percent Reduction		
	Baseline			Project without PDFs less Baseline			Net of Project with PDFs less Baseline	Percent reduction of incorporation of PDFs (using net)	Percent of total per emission source
	Baseline	at Buildout	Project w/o PDFs	Project with PDFs	at Buildout	at Buildout	Percent reduction of incorporation of PDFs (using net)	Percent of total per emission source	Percent of total per emission source
	Baseline	Buildout	w/o PDFs	with PDFs	Baseline	Buildout	Percent reduction of incorporation of PDFs (using net)	Percent of total per emission source	Percent of total per emission source
Area	0	0	154	11	154	11	93%	93%	0%
Energy	638	638	2,314	2,101	1,676	1,463	9%	13%	41%
Mobile	2,146	1,871	7,532	3,280	5,661	1,409	56%	75%	40%
Stationary	0	0	8	8	8	8	0%	0%	0%
Waste	53	53	241	121	188	67	50%	64%	2%
Water	67	67	423	338	356	272	20%	24%	8%
Operational Total	2,904	2,629	10,673	5,859	8,044	3,230	45%	60%	
Construction Total	-	-	332	332	332	332			9%
TOTAL			11,005	6,191	8,376	3,562	44%		100%

Existing (Daily Trip Generation)	Square Footage	Quantity	Trip Rate	Daily	Internal	Transit	Pass-by	CalEEMod			Adjustment Factor		
								Weekday	Saturday	Sunday	Sat	Sun	
Retail Parking Lot (spaces)	100781 39,600	100.781 99	42.70 ----	4,303	CalEEMod was used to calculate these reductions CalEEMod was used to calculate these reductions			44.32	42.04	20.43	0.96	40.50	19.68

Project (Daily Trip Generation)	Square Footage	Quantity	Trip Rate	Daily	Internal	Transit	Pass-by	CalEEMod			Adjustment Factor for Project		
								Weekday	Saturday	Sunday	Sat	Sun	
Residential Apartments (DU)	647029	658	6.65	4,376	CalEEMod was used to calculate these reductions			6.65	6.39	5.86	1.00	6.39	5.86
Retail	13650	13.65	42.71	583	CalEEMod was used to calculate these reductions			44.32	42.04	20.43	0.96	40.51	19.69
Restaurant	13650	13.65	127.18	1,736	CalEEMod was used to calculate these reductions			127.15	158.37	131.84	1.00	158.41	131.87
Parking Structure Enclosed	243600	609	----	----	CalEEMod was used to calculate these reductions			----	----	----	----	----	----
Parking Structure Unenclosed	243200	608	----	----	CalEEMod was used to calculate these reductions			----	----	----	----	----	----

Adjustments to Energy Factors to account for Title 24 2016 requirements.

2016 savings equal 28% for Residential and 5% for Nonresidential for electricity

	Project	Baseline	Net	Project without PDFs		Percent VMT reduction
				18,091,545	60%	
Annual VMT		7,150,753	4,047,044	3,103,709		
Daily VMT			19,591	11,088	8,503	
Service Population			1,680	273	1,407	
Total VMT Per Capita		11.66137149	40.614622	6.04		

EnergyUseLandUseSubType	CalEEMod Default T24E	Adjusted to Account for 2013 and 2016 Title 24 Standards							
		NT24E	Lighting	Elect	T24NG	NT24NG			
Residential Apartments (DU) (647,029 sq ft)		194.04	3277.06	741.44	6328.91	4831	139.71	3,277.06	741.44
Retail		4.2	3.23	6.43	1.16	0.49	3.99	3.23	6.43
Restaurant		8.5	28.16	8.13	43.19	187.78	8.08	28.16	8.13
									4,831.00
									187.78

#### Parking Garage Ventilation

Square Footage =	243600 ft <sup>2</sup>
Minimum Ventilation =	0.15 cfm/ft <sup>2</sup>
Flowrate =	36540 cfm
Number of Fans (20,000 cfm)	1.9751351 fans
Number of Fans	2 fans
Horsepower per Fan	16 hp
Horsepower to kW Conv.	0.746 kW per hp
Total kW =	23.872
Annual kW =	104,559 conservatively assumes operational 50 percent of the time even though it would only be operational when CO sensors read CO concentrations in excess of 25 ppm
Usage Rate:	0.43 kWh/sq ft annual

#### Parking Garage Lighting

Square Footage =	486800 ft <sup>2</sup>
Allowed Lighting Power =	0.2 watts per ft <sup>2</sup> (Table 140.6 (Complete Building Method Lighting Power Density Value) of the 2013 Building Energy Efficiency Standards)
Annual kW =	852,874 conservatively assumes maximum lighting power 24 hours per day
Annual kW/sq ft =	1.75 kWh/sq ft annual

#### Elevator (no change CalEEMod Default)

0.19 kWh/sq ft annual

LUT-1:	Increase Density LUT-1 CAPCOA measures dwellings per acre and jobs per acre . Data Needed: number of housing units per acre or jobs per acre Project: 6.06 acres, 658 residential units (1,606 residents), 74 employees Baseline: 6.06 acres, 273 employees	<b>DU/Acre    Jobs/Acre</b> 108.5809    12.21122 45.07
LUT-3	Increase Diversity of Urban and Suburban Developments (Mixed Use) (Internally calculated in CalEEMod based on mix of land uses)	
LUT-5	Increase Transit Accessibility (0.5-24.6% reduction) Distance to Big Blue Rapid Stop	0.25 miles
LUT-9	Improve Walkability Design Intersections/Square Miles	107 intersections
SDT-1	Provide pedestrian Network Improvements	Yes

## CARB Scoping Plan - GHG Emissions Data (2017)

Service Population - Efficiency Calculation

### Service Population Calculation

Year	2023
State Population <sup>a</sup>	41,667,586
State Employment <sup>b</sup>	19,461,950
State Service Population	61,129,536

### 1. Statewide GHG Emissions<sup>c</sup>

#### Energy Emissions

Sector	MMT CO2/Year
Agriculture	7.5
Commercial	34.9
Industrial	32.8
Oil & Gas Extraction	20.2
Petroleum Refining	33.2
Residential	45.1
TCU	5.2
Transportation	133.1
<b>Total</b>	<b>312.1</b>

#### Non-Energy Emissions

Sector	MMT CO2/Year
Cement	5.1
Waste	10.2
Petroleum Refining	0.5
Oil Extraction Fugitive Emissions	1.4
Electricity Generation Fugitive and Process Emissions	0.7
Pipeline Fugitive Emissions	3.1
Agriculture: Enteric	10.9
Agriculture: Soil Emissions	7.1
Agriculture: Manure	9.1
Agriculture: Other	1.0
Fgas: RES	3.8
Fgas: COM	7.8
Fgas: IND	2.3
Fgas: LDV	1.1
Fgas: HDV	1.0
Fgas: Other trans	0.2
Fgas: Electricity	0.1
Land: Use change	0.0
<b>Total</b>	<b>65.6</b>
<b>Grand Total</b>	<b>377.6</b>

### 3. Scoping Plan GHG Emissions - Land Use Only Sectors

Sector	MMT CO2/Year
<b>Energy</b>	
Commercial	34.9
Residential	45.1
TCU	5.2
Transportation	133.1
<b>Non-Energy</b>	
Waste	10.2
<b>Total</b>	<b>228.5</b>
<b>Scoping Plan - Emissions per SP (Land Use Only)</b>	<b>3.7</b>

<sup>a</sup> SCAG 2016-2040 RTP/SCS. Demographics and Growth Forecast Appendix. Table 11. April 2016.

<sup>b</sup> California Employment Development Department Statewide Employment Projections:

<http://www.labormarketinfo.edd.ca.gov/data/employment-projections.html>. Accessed March

<sup>c</sup> California's 2017 Climate Change Scoping Plan. PATHWAYS Output Tool Data (Statewide Data). California Air Resources Board. November 2017

## Paseo Marina Baseline - Los Angeles-South Coast County, Annual

**Paseo Marina Baseline**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Strip Mall	100.78	1000sqft	2.31	100,781.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2017
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - RPS of 33.3% for LADWP

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Vehicle Trips - Site Specific

Woodstoves - Site Specific

Energy Use - Historical Data Used

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblLandUse	BuildingSpaceSquareFeet	100,780.00	100,781.00
tblLandUse	LandUseSquareFeet	100,780.00	100,781.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	840
tblProjectCharacteristics	OperationalYear	2018	2017
tblVehicleTrips	ST_TR	42.04	40.51
tblVehicleTrips	SU_TR	20.43	19.69
tblVehicleTrips	WD_TR	44.32	42.71

## 2.0 Emissions Summary

---

### 2.2 Overall Operational

#### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.4143	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.3000e-003	
Energy	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						637.8505	
Mobile	1.5250	6.3615	17.1901	0.0404	2.8472	0.0560	2.9032	0.7636	0.0528	0.8163						3,722.8237	
Waste						0.0000	0.0000		0.0000	0.0000						53.2170	
Water						0.0000	0.0000		0.0000	0.0000						66.7335	
Total	1.9402	6.3705	17.2002	0.0405	2.8472	0.0567	2.9039	0.7636	0.0535	0.8170						4,480.6299	

## Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.4143	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.3000e-003	
Energy	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						637.8505	
Mobile	1.2822	4.6984	11.4413	0.0233	1.5367	0.0331	1.5698	0.4121	0.0311	0.4433						2,145.9495	
Waste						0.0000	0.0000		0.0000	0.0000						53.2170	
Water						0.0000	0.0000		0.0000	0.0000						66.7335	
Total	1.6974	4.7074	11.4515	0.0233	1.5367	0.0338	1.5705	0.4121	0.0318	0.4440						2,903.7557	

  

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	12.51	26.11	33.42	42.33	46.03	40.43	45.92	46.03	40.45	45.66	0.00	0.00	0.00	0.00	0.00	35.19

## 4.0 Operational Detail - Mobile

---

### 4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

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	1.2822	4.6984	11.4413	0.0233	1.5367	0.0331	1.5698	0.4121	0.0311	0.4433						2,145.9495	
Unmitigated	1.5250	6.3615	17.1901	0.0404	2.8472	0.0560	2.9032	0.7636	0.0528	0.8163						3,722.8237	

### 4.2 Trip Summary Information

	Average Daily Trip Rate	Unmitigated	Mitigated

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	4,304.31	4,082.60	1984.36	7,498,542	4,047,194
Total	4,304.31	4,082.60	1,984.36	7,498,542	4,047,194

#### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968
Strip Mall	0.547512	0.046663	0.198227	0.127154	0.018333	0.005870	0.017956	0.026928	0.002295	0.002753	0.004678	0.000662	0.000968

#### 5.0 Energy Detail

Historical Energy Use: Y

#### 5.1 Mitigation Measures Energy

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						628.0042
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						628.0042
NaturalGas Mitigated	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8462
NaturalGas Unmitigated	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8462

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr											MT/yr				
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Strip Mall	183421	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8462
Total		9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8462

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr											MT/yr				
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Strip Mall	183421	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8462
Total		9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8462

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e	
Land Use	kWh/yr	MT/yr				
Parking Lot	34848					13.3174
Strip Mall	1.60846e+006					614.6868
Total						628.0042

## Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	34848				13.3174
Strip Mall	1.60846e+006				614.6868
<b>Total</b>					<b>628.0042</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4143	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.3000e-003
Unmitigated	0.4143	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.3000e-003

### 6.2 Area by SubCategory

#### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0473						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	0.3667						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.3000e-003
<b>Total</b>	<b>0.4142</b>	<b>2.0000e-005</b>	<b>2.6000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>						<b>5.3000e-003</b>

## 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	0.0473						0.0000	0.0000		0.0000	0.0000					0.0000	
Consumer Products	0.3667						0.0000	0.0000		0.0000	0.0000					0.0000	
Landscaping	2.5000e-004	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.3000e-003	
<b>Total</b>	<b>0.4142</b>	<b>2.0000e-005</b>	<b>2.6000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>						<b>5.3000e-003</b>	

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				66.7335
Unmitigated				66.7335

### 7.2 Water by Land Use

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0				0.0000
Strip Mall	7.46503 / 4.57534				66.7335
<b>Total</b>					<b>66.7335</b>

## Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0				0.0000
Strip Mall	7.46503 / 4.57534				66.7335
<b>Total</b>					<b>66.7335</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				53.2170
Unmitigated				53.2170

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0				0.0000
Strip Mall	105.82				53.2170
<b>Total</b>					<b>53.2170</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0				0.0000
Strip Mall	105.82				53.2170
<b>Total</b>					<b>53.2170</b>

## Paseo Marina Baseline Buildout Year - Los Angeles-South Coast County, Annual

**Paseo Marina Baseline Buildout Year**  
**Los Angeles-South Coast County, Annual**

## 1.0 Project Characteristics

---

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Strip Mall	100.78	1000sqft	2.31	100,780.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS of 33.3% for LADWP

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Vehicle Trips - Site Specific

Woodstoves - Site Specific

Energy Use - Historical Data Used

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblProjectCharacteristics	CO2IntensityFactor	1227.89	840
tblProjectCharacteristics	OperationalYear	2018	2023
tblVehicleTrips	ST_TR	42.04	40.51
tblVehicleTrips	SU_TR	20.43	19.68
tblVehicleTrips	WD_TR	44.32	42.71

## **2.0 Emissions Summary**

## 2.2 Overall Operational

### Unmitigated Operational

## **Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4142	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003
Energy	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						637.8443
Mobile	0.7533	3.1135	6.5118	0.0202	1.5360	0.0164	1.5524	0.4117	0.0153	0.4270						1,871.018
Waste						0.0000	0.0000		0.0000	0.0000						53.2170

Water						0.0000	0.0000		0.0000	0.0000							66.7335
Total	1.1685	3.1225	6.5219	0.0202	1.5360	0.0171	1.5531	0.4117	0.0159	0.4277							2,628.818 8
<hr/>																	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Percent Reduction	10.31	19.01	34.03	41.79	46.03	38.14	45.95	46.03	38.15	45.77	0.00	0.00	0.00	0.00	0.00	33.79	

## 4.0 Operational Detail - Mobile

---

### 4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

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	0.7533	3.1135	6.5118	0.0202	1.5360	0.0164	1.5524	0.4117	0.0153	0.4270						1,871.018 8
Unmitigated	0.8876	3.8465	9.8758	0.0347	2.8459	0.0270	2.8729	0.7628	0.0251	0.7879						3,212.538 2

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT		
Parking Lot	0.00	0.00	0.00				
Strip Mall	4,304.31	4,082.60	1983.35	7,498,268		4,047,044	
Total	4,304.31	4,082.60	1,983.35	7,498,268		4,047,044	

### 4.3 Trip Type Information

Land Use	Miles				Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0	
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15	

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

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						627.9981
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000						627.9981
NaturalGas Mitigated	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004	6.8000e-004	6.8000e-004								9.8461
NaturalGas Unmitigated	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004	6.8000e-004	6.8000e-004								9.8461

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr											MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000	
Strip Mall	183420	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004	6.8000e-004	6.8000e-004							9.8461	
Total		9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004	6.8000e-004	6.8000e-004							9.8461	

#### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Strip Mall	183420	9.9000e-004	8.9900e-003	7.5500e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						9.8461
<b>Total</b>		<b>9.9000e-004</b>	<b>8.9900e-003</b>	<b>7.5500e-003</b>	<b>5.0000e-005</b>		<b>6.8000e-004</b>	<b>6.8000e-004</b>		<b>6.8000e-004</b>	<b>6.8000e-004</b>						<b>9.8461</b>

### **5.3 Energy by Land Use - Electricity**

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	34848				13.3174
Strip Mall	1.60845e+006				614.6807
<b>Total</b>					<b>627.9981</b>

### **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	34848				13.3174
Strip Mall	1.60845e+006				614.6607
<b>Total</b>					<b>627.9981</b>

## **6.0 Area Detail**

### **6.1 Mitigation Measures Area**

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

Category	tons/yr										MT/yr						
	Mitigated	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
Mitigated	0.4142	2.0000e-005	2.5500e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003
Unmitigated	0.4142	2.0000e-005	2.5500e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003

## 6.2 Area by SubCategory

### Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0473						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	0.3667						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003
Total	0.4142	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003

### Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0473						0.0000	0.0000		0.0000	0.0000					0.0000
Consumer Products	0.3667						0.0000	0.0000		0.0000	0.0000					0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003
Total	0.4142	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.2800e-003

## 7.0 Water Detail

---

### 7.1 Mitigation Measures Water

Category	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated					66.7335
Unmitigated					66.7335

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0				0.0000
Strip Mall	7.46503 / 4.57534				66.7335
<b>Total</b>					<b>66.7335</b>

### Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0				0.0000
Strip Mall	7.46503 / 4.57534				66.7335
<b>Total</b>					<b>66.7335</b>

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				53.2170
Unmitigated				53.2170

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0				0.0000
Strip Mall	105.82				53.2170
<b>Total</b>					<b>53.2170</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0				0.0000
Strip Mall	105.82				53.2170
<b>Total</b>					<b>53.2170</b>

## Paseo Marina Construction - Los Angeles-South Coast County, Annual

**Paseo Marina Construction**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,217.00	Space	10.95	486,800.00	0
High Turnover (Sit Down Restaurant)	13.65	1000sqft	0.31	13,650.00	0
Apartments Mid Rise	658.00	Dwelling Unit	17.32	647,029.00	1882
Strip Mall	13.65	1000sqft	0.31	13,650.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

## Trips and VMT - Site Specific

## Demolition -

## Grading -

Construction Off-road Equipment Mitigation -

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	35.00	260.00
tblConstructionPhase	NumDays	440.00	413.00
tblConstructionPhase	NumDays	440.00	414.00
tblConstructionPhase	NumDays	440.00	150.00
tblConstructionPhase	NumDays	30.00	85.00
tblConstructionPhase	NumDays	45.00	262.00
tblConstructionPhase	NumDays	35.00	22.00
tblConstructionPhase	NumDays	35.00	43.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	20.00	173.00
tblConstructionPhase	NumDays	20.00	174.00
tblGrading	MaterialExported	0.00	220,000.00
tblLandUse	LandUseSquareFeet	658,000.00	647,029.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	40.40
tblTripsAndVMT	HaulingTripLength	20.00	40.40

tblTripsAndVMT	HaulingTripNumber	1,104.00	5,100.00
tblTripsAndVMT	HaulingTripNumber	27,500.00	31,429.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	0.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	VendorTripNumber	155.00	70.00
tblTripsAndVMT	WorkerTripNumber	30.00	40.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	48.00	70.00
tblTripsAndVMT	WorkerTripNumber	38.00	60.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	53.00	75.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00
tblTripsAndVMT	WorkerTripNumber	138.00	0.00
tblTripsAndVMT	WorkerTripNumber	688.00	225.00

## 2.0 Emissions Summary

## **2.1 Overall Construction**

## **Unmitigated Construction**

2021	1.8426	17.4550	15.8421	0.0420	1.2070	0.6337	1.8407	0.3188	0.6067	0.9255						3,784.446	9
2022	2.2311	8.7189	9.7958	0.0236	0.7338	0.3431	1.0769	0.1975	0.3288	0.5263						2,103.035	9
2023	1.5417	3.3997	4.1737	9.5800e-003	0.2584	0.1389	0.3973	0.0695	0.1327	0.2022						846.6333	
Maximum	2.2311	17.4550	15.8421	0.0420	1.2070	0.6337	1.8407	0.3188	0.6067	0.9255						3,784.446	9

### 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						
2020	0.5806	13.0716	9.7955	0.0346	0.8163	0.3435	1.1598	0.2131	0.3422	0.5553						3,232.304	9
2021	0.9066	15.6203	16.9910	0.0420	1.1994	0.6383	1.8378	0.3177	0.6374	0.9550						3,784.446	
2022	1.7140	8.3052	10.6011	0.0236	0.7338	0.3962	1.1300	0.1975	0.3957	0.5931						2,103.034	6
2023	1.3306	3.4078	4.5177	9.5800e-003	0.2584	0.1779	0.4363	0.0695	0.1777	0.2472						846.6327	
Maximum	1.7140	15.6203	16.9910	0.0420	1.1994	0.6383	1.8378	0.3177	0.6374	0.9550						3,784.446	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	32.10	7.59	-8.85	0.00	2.84	-5.85	0.05	1.64	-10.47	-6.04	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
12	1-17-2020	4-16-2020	1.6889	1.5014
13	4-17-2020	7-16-2020	3.6469	3.4236
14	7-17-2020	10-16-2020	4.5667	4.1073
15	10-17-2020	1-16-2021	6.1420	5.3531
16	1-17-2021	4-16-2021	5.8174	5.2521
17	4-17-2021	7-16-2021	4.5677	3.8347
18	7-17-2021	10-16-2021	4.2508	3.5038
19	10-17-2021	1-16-2022	3.9553	3.2980
20	1-17-2022	4-16-2022	2.4427	2.2164
21	4-17-2022	7-16-2022	2.5588	2.3300
22	7-17-2022	10-16-2022	3.0509	2.8196

23	10-17-2022	1-16-2023	2.9619	2.7423
24	1-17-2023	4-16-2023	2.4406	2.3418
25	4-17-2023	7-16-2023	1.9745	1.8851
	Highest		6.1420	5.3531

### 3.0 Construction Detail

---

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2020	5/30/2020	5	85	
2	Grading Building 1-3	Grading	5/1/2020	5/3/2021	5	262	
3	Podium Building 1	Site Preparation	8/1/2020	3/31/2021	5	173	
4	Podium Building 2	Site Preparation	11/1/2020	6/30/2021	5	173	
5	Construction Building 1	Building Construction	4/1/2021	10/31/2022	5	413	
6	Podium Building 3	Site Preparation	5/4/2021	12/31/2021	5	174	
7	Construction Building 2	Building Construction	7/1/2021	1/31/2023	5	414	
8	Architectural Coating	Architectural Coating	7/1/2022	6/29/2023	5	260	
9	Construction Building 3	Building Construction	12/1/2022	6/28/2023	5	150	
10	Paving Building 1	Paving	12/1/2022	12/31/2022	5	22	
11	Paving Building 2	Paving	2/1/2023	3/31/2023	5	43	
12	Paving Building 3	Paving	5/1/2023	6/30/2023	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10.95

Residential Indoor: 1,310,234; Residential Outdoor: 436,745; Non-Residential Indoor: 40,950; Non-Residential Outdoor: 13,650; Striped

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	0	8.00	158	0.38
Demolition	Generator Sets	0	8.00	84	0.74
Demolition	Off-Highway Tractors	2	8.00	124	0.44
Demolition	Rough Terrain Forklifts	1	8.00	100	0.40

Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Signal Boards	2	8.00	6	0.82
Demolition	Skid Steer Loaders	1	8.00	65	0.37
Demolition	Welders	1	8.00	46	0.45
Grading Building 1-3	Air Compressors	0	8.00	78	0.48
Grading Building 1-3	Bore/Drill Rigs	2	8.00	221	0.50
Grading Building 1-3	Cement and Mortar Mixers	1	8.00	9	0.56
Grading Building 1-3	Crushing/Proc. Equipment	0	8.00	85	0.78
Grading Building 1-3	Excavators	2	8.00	158	0.38
Grading Building 1-3	Forklifts	0	8.00	89	0.20
Grading Building 1-3	Generator Sets	0	8.00	84	0.74
Grading Building 1-3	Graders	0	8.00	187	0.41
Grading Building 1-3	Off-Highway Tractors	2	8.00	124	0.44
Grading Building 1-3	Plate Compactors	0	8.00	8	0.43
Grading Building 1-3	Rough Terrain Forklifts	1	8.00	100	0.40
Grading Building 1-3	Rubber Tired Dozers	0	8.00	247	0.40
Grading Building 1-3	Rubber Tired Loaders	2	8.00	203	0.36
Grading Building 1-3	Scrapers	0	8.00	367	0.48
Grading Building 1-3	Signal Boards	2	8.00	6	0.82
Grading Building 1-3	Skid Steer Loaders	1	8.00	65	0.37
Grading Building 1-3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading Building 1-3	Welders	2	8.00	46	0.45
Podium Building 1	Air Compressors	1	8.00	78	0.48
Podium Building 1	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 1	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 1	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 1	Cranes	1	8.00	231	0.29
Podium Building 1	Forklifts	2	8.00	89	0.20
Podium Building 1	Generator Sets	0	8.00	84	0.74
Podium Building 1	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 1	Pavers	0	8.00	130	0.42
Podium Building 1	Paving Equipment	0	8.00	132	0.36
Podium Building 1	Plate Compactors	2	8.00	8	0.43
Podium Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 1	Rubber Tired Dozers	0	0.00	247	0.40

Podium Building 1	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 1	Signal Boards	2	8.00	6	0.82
Podium Building 1	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 1	Surfacing Equipment	0	8.00	263	0.30
Podium Building 1	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 1	Trenchers	0	8.00	78	0.50
Podium Building 1	Welders	2	8.00	46	0.45
Podium Building 2	Air Compressors	1	8.00	78	0.48
Podium Building 2	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 2	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 2	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 2	Cranes	1	8.00	231	0.29
Podium Building 2	Forklifts	2	8.00	89	0.20
Podium Building 2	Generator Sets	0	8.00	84	0.74
Podium Building 2	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 2	Pavers	0	8.00	130	0.42
Podium Building 2	Paving Equipment	0	8.00	132	0.36
Podium Building 2	Plate Compactors	2	8.00	8	0.43
Podium Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 2	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 2	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 2	Signal Boards	2	8.00	6	0.82
Podium Building 2	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 2	Surfacing Equipment	0	8.00	263	0.30
Podium Building 2	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 2	Trenchers	0	8.00	78	0.50
Podium Building 2	Welders	2	8.00	46	0.45
Podium Building 3	Air Compressors	1	8.00	78	0.48
Podium Building 3	Bore/Drill Rigs	0	8.00	221	0.50
Podium Building 3	Cement and Mortar Mixers	3	8.00	9	0.56
Podium Building 3	Concrete/Industrial Saws	3	8.00	81	0.73
Podium Building 3	Cranes	1	8.00	231	0.29
Podium Building 3	Forklifts	2	8.00	89	0.20
Podium Building 3	Generator Sets	0	8.00	84	0.74
Podium Building 3	Off-Highway Tractors	3	8.00	124	0.44
Podium Building 3	Pavers	0	8.00	130	0.42

Podium Building 3	Paving Equipment	0	8.00	132	0.36
Podium Building 3	Plate Compactors	2	8.00	8	0.43
Podium Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Podium Building 3	Rubber Tired Dozers	0	0.00	247	0.40
Podium Building 3	Rubber Tired Loaders	0	8.00	203	0.36
Podium Building 3	Signal Boards	2	8.00	6	0.82
Podium Building 3	Skid Steer Loaders	1	8.00	65	0.37
Podium Building 3	Surfacing Equipment	0	8.00	263	0.30
Podium Building 3	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Podium Building 3	Trenchers	0	8.00	78	0.50
Podium Building 3	Welders	2	8.00	46	0.45
Construction Building 1	Air Compressors	3	8.00	78	0.48
Construction Building 1	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 1	Cranes	1	7.00	231	0.29
Construction Building 1	Forklifts	3	8.00	89	0.20
Construction Building 1	Generator Sets	0	8.00	84	0.74
Construction Building 1	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 1	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 1	Signal Boards	2	8.00	6	0.82
Construction Building 1	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 1	Welders	2	8.00	46	0.45
Construction Building 2	Air Compressors	3	8.00	78	0.48
Construction Building 2	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 2	Cranes	1	7.00	231	0.29
Construction Building 2	Forklifts	3	8.00	89	0.20
Construction Building 2	Generator Sets	0	8.00	84	0.74
Construction Building 2	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 2	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 2	Signal Boards	2	8.00	6	0.82
Construction Building 2	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 2	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48

Paving Building 1	Air Compressors	2	8.00	78	0.48
Paving Building 1	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 1	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 1	Cranes	0	8.00	231	0.29
Paving Building 1	Forklifts	2	8.00	89	0.20
Paving Building 1	Generator Sets	0	8.00	84	0.74
Paving Building 1	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 1	Pavers	1	8.00	130	0.42
Paving Building 1	Paving Equipment	1	8.00	132	0.36
Paving Building 1	Plate Compactors	2	8.00	8	0.43
Paving Building 1	Rollers	1	8.00	80	0.38
Paving Building 1	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 1	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 1	Signal Boards	2	8.00	6	0.82
Paving Building 1	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 1	Surfacing Equipment	0	8.00	263	0.30
Paving Building 1	Trenchers	1	8.00	78	0.50
Paving Building 1	Welders	1	8.00	46	0.45
Construction Building 3	Air Compressors	3	8.00	78	0.48
Construction Building 3	Concrete/Industrial Saws	1	8.00	81	0.73
Construction Building 3	Cranes	1	7.00	231	0.29
Construction Building 3	Forklifts	3	8.00	89	0.20
Construction Building 3	Generator Sets	0	8.00	84	0.74
Construction Building 3	Off-Highway Tractors	1	8.00	124	0.44
Construction Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Construction Building 3	Rubber Tired Loaders	1	8.00	203	0.36
Construction Building 3	Signal Boards	2	8.00	6	0.82
Construction Building 3	Skid Steer Loaders	1	8.00	65	0.37
Construction Building 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Construction Building 3	Welders	2	8.00	46	0.45
Paving Building 2	Air Compressors	2	8.00	78	0.48
Paving Building 2	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 2	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 2	Cranes	0	8.00	231	0.29
Paving Building 2	Forklifts	2	8.00	89	0.20
Paving Building 2	Generator Sets	0	8.00	84	0.74

Paving Building 2	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 2	Pavers	1	8.00	130	0.42
Paving Building 2	Paving Equipment	1	8.00	132	0.36
Paving Building 2	Plate Compactors	2	8.00	8	0.43
Paving Building 2	Rollers	1	8.00	80	0.38
Paving Building 2	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 2	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 2	Signal Boards	2	8.00	6	0.82
Paving Building 2	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 2	Surfacing Equipment	0	8.00	263	0.30
Paving Building 2	Trenchers	1	8.00	78	0.50
Paving Building 2	Welders	1	8.00	46	0.45
Paving Building 3	Air Compressors	2	8.00	78	0.48
Paving Building 3	Cement and Mortar Mixers	2	8.00	9	0.56
Paving Building 3	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Building 3	Cranes	0	8.00	231	0.29
Paving Building 3	Forklifts	2	8.00	89	0.20
Paving Building 3	Generator Sets	0	8.00	84	0.74
Paving Building 3	Off-Highway Tractors	0	8.00	124	0.44
Paving Building 3	Pavers	1	8.00	130	0.42
Paving Building 3	Paving Equipment	1	8.00	132	0.36
Paving Building 3	Plate Compactors	2	8.00	8	0.43
Paving Building 3	Rollers	1	8.00	80	0.38
Paving Building 3	Rough Terrain Forklifts	1	8.00	100	0.40
Paving Building 3	Rubber Tired Loaders	1	8.00	203	0.36
Paving Building 3	Signal Boards	2	8.00	6	0.82
Paving Building 3	Skid Steer Loaders	1	8.00	65	0.37
Paving Building 3	Surfacing Equipment	0	8.00	263	0.30
Paving Building 3	Trenchers	1	8.00	78	0.50
Paving Building 3	Welders	1	8.00	46	0.45

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	40.00	4.00	5,100.00	14.70	6.90	40.40	LD_Mix	HDT_Mix	HHDT
Grading Building 1-3	15	60.00	4.00	31,429.00	14.70	6.90	40.40	LD_Mix	HDT_Mix	HHDT

Podium Building 1	21	75.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Podium Building 2	21	75.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Podium Building 3	21	75.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Construction Building 1	16	225.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Construction Building 2	16	225.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Building 1	19	70.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Construction Building 3	16	225.00	70.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Building 2	19	70.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Building 3	19	70.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1195	0.0000	0.1195	0.0181	0.0000	0.0181						0.0000
Off-Road	0.1393	1.1771	1.1920	2.0700e-003		0.0610	0.0610		0.0592	0.0592						177.4244
Total	0.1393	1.1771	1.1920	2.0700e-003	0.1195	0.0610	0.1805	0.0181	0.0592	0.0772						177.4244

#### 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	0.0408	1.2835	0.3007	3.7800e-003	0.0885	4.6300e-003	0.0931	0.0243	4.4300e-003	0.0287						371.8733

Vendor	6.2000e-004	0.0184	4.9900e-003	4.0000e-005	1.0700e-003	9.0000e-005	1.1600e-003	3.1000e-004	8.0000e-005	3.9000e-004						4.2300
Worker	7.8500e-003	6.3300e-003	0.0700	1.9000e-004	0.0186	1.6000e-004	0.0188	4.9500e-003	1.5000e-004	5.0900e-003						17.3766
Total	0.0493	1.3082	0.3756	4.0100e-003	0.1082	4.8800e-003	0.1131	0.0296	4.6600e-003	0.0342						393.4799

### 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					0.0466	0.0000	0.0466	7.0600e-003	0.0000	7.0600e-003						0.0000
Off-Road	0.0466	0.9762	1.3020	2.0700e-003		0.0595	0.0595		0.0595	0.0595						177.4242
Total	0.0466	0.9762	1.3020	2.0700e-003	0.0466	0.0595	0.1061	7.0600e-003	0.0595	0.0666						177.4242

### 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	0.0408	1.2835	0.3007	3.7800e-003	0.0885	4.6300e-003	0.0931	0.0243	4.4300e-003	0.0287						371.8733
Vendor	6.2000e-004	0.0184	4.9900e-003	4.0000e-005	1.0700e-003	9.0000e-005	1.1600e-003	3.1000e-004	8.0000e-005	3.9000e-004						4.2300
Worker	7.8500e-003	6.3300e-003	0.0700	1.9000e-004	0.0186	1.6000e-004	0.0188	4.9500e-003	1.5000e-004	5.0900e-003						17.3766
Total	0.0493	1.3082	0.3756	4.0100e-003	0.1082	4.8800e-003	0.1131	0.0296	4.6600e-003	0.0342						393.4799

### 3.3 Grading Building 1-3 - 2020

#### Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr				
	Fugitive Dust	Off-Road	Total	0.2963	2.9114	2.4751	5.5800e-003	0.0124	0.0000	0.0124	1.8800e-003	0.0000	1.8800e-003	0.0000	482.9756
Fugitive Dust															
Off-Road															
Total				0.2963	2.9114	2.4751	5.5800e-003	0.0124	0.1167	0.1291	1.8800e-003	0.1089	0.1108		482.9756

### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.1680	5.2830	1.2376	0.0155	0.5004	0.0191	0.5194	0.1334	0.0182	0.1517						1,530.7071
Vendor	1.2700e-003	0.0379	0.0103	9.0000e-005	2.2000e-003	1.8000e-004	2.3800e-003	6.4000e-004	1.7000e-004	8.1000e-004						8.7087
Worker	0.0242	0.0195	0.2161	5.9000e-004	0.0575	4.9000e-004	0.0580	0.0153	4.5000e-004	0.0157						53.6632
Total	0.1935	5.3405	1.4640	0.0162	0.5601	0.0197	0.5798	0.1493	0.0189	0.1682						1,593.0790

### Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust																0.0000
Off-Road	0.1408	2.7018	3.4096	5.5800e-003		0.1263	0.1263		0.1263	0.1263						482.9751
Total	0.1408	2.7018	3.4096	5.5800e-003	4.8500e-003	0.1263	0.1312	7.3000e-004	0.1263	0.1271						482.9751

### 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	0.1680	5.2830	1.2376	0.0155	0.5004	0.0191	0.5194	0.1334	0.0182	0.1517						1,530.707	
Vendor	1.2700e-003	0.0379	0.0103	9.0000e-005	2.2000e-003	1.8000e-004	2.3800e-003	6.4000e-004	1.7000e-004	8.1000e-004						8.7087	
Worker	0.0242	0.0195	0.2161	5.9000e-004	0.0575	4.9000e-004	0.0580	0.0153	4.5000e-004	0.0157						53.6632	
Total	0.1935	5.3405	1.4640	0.0162	0.5601	0.0197	0.5798	0.1493	0.0189	0.1682						1,593.079	
																0	

### 3.3 Grading Building 1-3 - 2021

#### 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					0.0124	0.0000	0.0124	1.8800e-003	0.0000	1.8800e-003						0.0000	
Off-Road	0.1364	1.3015	1.2231	2.7800e-003		0.0518	0.0518		0.0483	0.0483						240.2965	
Total	0.1364	1.3015	1.2231	2.7800e-003	0.0124	0.0518	0.0643	1.8800e-003	0.0483	0.0502						240.2965	

#### 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	0.0799	2.4296	0.6090	7.6300e-003	0.4550	8.5200e-003	0.4636	0.1170	8.1500e-003	0.1251						752.4858	
Vendor	5.4000e-004	0.0172	4.6600e-003	4.0000e-005	1.1000e-003	4.0000e-005	1.1300e-003	3.2000e-004	3.0000e-005	3.5000e-004						4.2956	
Worker	0.0112	8.7400e-003	0.0987	2.9000e-004	0.0286	2.4000e-004	0.0288	7.6000e-003	2.2000e-004	7.8100e-003						25.8297	
Total	0.0917	2.4555	0.7124	7.9600e-003	0.4847	8.8000e-003	0.4935	0.1249	8.4000e-003	0.1333						782.6111	

#### Mitigated Construction On-Site

### **Mitigated Construction Off-Site**

### **3.4 Podium Building 1 - 2020**

### **Unmitigated Construction On-Site**

### 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	
Vendor	0.0138	0.4134	0.1119	9.8000e-004	0.0240	1.9200e-003	0.0260	6.9400e-003	1.8400e-003	8.7700e-003						94.9252	
Worker	0.0189	0.0152	0.1683	4.6000e-004	0.0448	3.8000e-004	0.0452	0.0119	3.5000e-004	0.0123						41.7806	
Total	0.0327	0.4286	0.2802	1.4400e-003	0.0688	2.3000e-003	0.0711	0.0188	2.1900e-003	0.0210						136.7057	

### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	0.0744	1.5269	2.0312	3.3100e-003		0.0925	0.0925		0.0925	0.0925						280.3060	
Total	0.0744	1.5269	2.0312	3.3100e-003	0.0000	0.0925	0.0925	0.0000	0.0925	0.0925						280.3060	

### 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	
Vendor	0.0138	0.4134	0.1119	9.8000e-004	0.0240	1.9200e-003	0.0260	6.9400e-003	1.8400e-003	8.7700e-003						94.9252	
Worker	0.0189	0.0152	0.1683	4.6000e-004	0.0448	3.8000e-004	0.0452	0.0119	3.5000e-004	0.0123						41.7806	

Total	0.0327	0.4286	0.2802	1.4400e-003	0.0688	2.3000e-003	0.0711	0.0188	2.1900e-003	0.0210							136.7057
-------	--------	--------	--------	-------------	--------	-------------	--------	--------	-------------	--------	--	--	--	--	--	--	----------

### 3.4 Podium Building 1 - 2021

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	0.1293	1.0878	1.1561	1.9400e-003		0.0551	0.0551		0.0530	0.0530							164.5716
Total	0.1293	1.0878	1.1561	1.9400e-003	0.0000	0.0551	0.0551	0.0000	0.0530	0.0530							164.5716

#### 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	
Vendor	6.9600e-003	0.2211	0.0599	5.7000e-004	0.0141	4.5000e-004	0.0146	4.0700e-003	4.3000e-004	4.5000e-003							55.2999
Worker	0.0103	8.0400e-003	0.0908	2.6000e-004	0.0263	2.2000e-004	0.0265	6.9900e-003	2.0000e-004	7.1800e-003							23.7515
Total	0.0173	0.2291	0.1507	8.3000e-004	0.0404	6.7000e-004	0.0411	0.0111	6.3000e-004	0.0117							79.0514

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

Off-Road	0.0437	0.8965	1.1926	1.9400e-003		0.0543	0.0543		0.0543	0.0543					164.5714
Total	0.0437	0.8965	1.1926	1.9400e-003	0.0000	0.0543	0.0543	0.0000	0.0543	0.0543					164.5714

## **Mitigated Construction Off-Site**

**3.5 Podium Building 2 - 2020**

### **Unmitigated Construction On-Site**

### 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
Vendor	5.5800e-003	0.1669	0.0452	3.9000e-004	9.7000e-003	7.8000e-004	0.0105	2.8000e-003	7.4000e-004	3.5400e-003						38.3184
Worker	7.6200e-003	6.1400e-003	0.0679	1.9000e-004	0.0181	1.5000e-004	0.0182	4.8000e-003	1.4000e-004	4.9400e-003						16.8656
Total	0.0132	0.1730	0.1131	5.8000e-004	0.0278	9.3000e-004	0.0287	7.6000e-003	8.8000e-004	8.4800e-003						55.1840

### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	0.0300	0.6164	0.8199	1.3400e-003		0.0373	0.0373		0.0373	0.0373						113.1510
Total	0.0300	0.6164	0.8199	1.3400e-003	0.0000	0.0373	0.0373	0.0000	0.0373	0.0373						113.1510

### 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
Vendor	5.5800e-003	0.1669	0.0452	3.9000e-004	9.7000e-003	7.8000e-004	0.0105	2.8000e-003	7.4000e-004	3.5400e-003						38.3184
Worker	7.6200e-003	6.1400e-003	0.0679	1.9000e-004	0.0181	1.5000e-004	0.0182	4.8000e-003	1.4000e-004	4.9400e-003						16.8656
Total	0.0132	0.1730	0.1131	5.8000e-004	0.0278	9.3000e-004	0.0287	7.6000e-003	8.8000e-004	8.4800e-003						55.1840

### 3.5 Podium Building 2 - 2021

#### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	0.2606	2.1926	2.3303	3.9200e-003		0.1111	0.1111		0.1068	0.1068							331.7145
Total	0.2606	2.1926	2.3303	3.9200e-003	0.0000	0.1111	0.1111	0.0000	0.1068	0.1068							331.7145

### 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
Vendor	0.0140	0.4456	0.1208	1.1500e-003	0.0284	9.1000e-004	0.0294	8.2100e-003	8.7000e-004	9.0800e-003							111.4639
Worker	0.0208	0.0162	0.1829	5.3000e-004	0.0530	4.4000e-004	0.0535	0.0141	4.0000e-004	0.0145							47.8741
Total	0.0348	0.4618	0.3037	1.6800e-003	0.0815	1.3500e-003	0.0828	0.0223	1.2700e-003	0.0236							159.3379

### 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							0.0000
Off-Road	0.0881	1.8071	2.4038	3.9200e-003		0.1094	0.1094		0.1094	0.1094							331.7141
Total	0.0881	1.8071	2.4038	3.9200e-003	0.0000	0.1094	0.1094	0.0000	0.1094	0.1094							331.7141

### Mitigated Construction Off-Site

3.6 Construction Building 1 - 2021

### **Unmitigated Construction On-Site**

### **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	
Vendor	0.0214	0.6805	0.1845	1.7500e-003	0.0434	1.3900e-003	0.0448	0.0125	1.3300e-003	0.0139						170.2200	
Worker	0.0954	0.0742	0.8381	2.4300e-003	0.2429	2.0000e-003	0.2449	0.0645	1.8400e-003	0.0664						219.3300	
Total	0.1168	0.7547	1.0226	4.1800e-003	0.2863	3.3900e-003	0.2897	0.0770	3.1700e-003	0.0802						389.5500	

## **Mitigated Construction On-Site**

## **Mitigated Construction Off-Site**

3.6 Construction Building 1 - 2022

## **Unmitigated Construction On-Site**

### 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	
Vendor	0.0220	0.7088	0.1914	1.9000e-003	0.0476	1.3300e-003	0.0490	0.0137	1.2700e-003	0.0150						184.9905	
Worker	0.0981	0.0735	0.8467	2.5600e-003	0.2663	2.1300e-003	0.2684	0.0707	1.9600e-003	0.0727						232.0193	
<b>Total</b>	<b>0.1201</b>	<b>0.7824</b>	<b>1.0381</b>	<b>4.4600e-003</b>	<b>0.3139</b>	<b>3.4600e-003</b>	<b>0.3174</b>	<b>0.0845</b>	<b>3.2300e-003</b>	<b>0.0877</b>						<b>417.0097</b>	

### 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	0.1315	2.6960	3.3962	5.4800e-003		0.1615	0.1615		0.1615	0.1615						468.7624	
<b>Total</b>	<b>0.1315</b>	<b>2.6960</b>	<b>3.3962</b>	<b>5.4800e-003</b>		<b>0.1615</b>	<b>0.1615</b>		<b>0.1615</b>	<b>0.1615</b>						<b>468.7624</b>	

### 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	

3.7 Podium Building 3 - 2021

## **Unmitigated Construction On-Site**

### **Unmitigated Construction Off-Site**

## **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														
Off-Road	0.1188	2.4374	3.2424	5.2900e-003		0.1476	0.1476		0.1476	0.1476					447.4284
Total	0.1188	2.4374	3.2424	5.2900e-003	0.0000	0.1476	0.1476	0.0000	0.1476	0.1476					447.4284

### Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.0189	0.6010	0.1630	1.5500e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1700e-003	0.0122						150.3466
Worker	0.0281	0.0219	0.2468	7.1000e-004	0.0715	5.9000e-004	0.0721	0.0190	5.4000e-004	0.0195						64.5743
Total	0.0470	0.6229	0.4097	2.2600e-003	0.1099	1.8200e-003	0.1117	0.0301	1.7100e-003	0.0318						214.9209

### 3.8 Construction Building 2 - 2021

#### Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.2324	1.9603	1.8878	3.3500e-003		0.0993	0.0993		0.0952	0.0952						286.4463
Total	0.2324	1.9603	1.8878	3.3500e-003		0.0993	0.0993		0.0952	0.0952						286.4463

#### 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
Vendor	0.0144	0.4559	0.1236	1.1700e-003	0.0291	9.3000e-004	0.0300	8.4000e-003	8.9000e-004	9.2900e-003							114.0561
Worker	0.0639	0.0497	0.5616	1.6200e-003	0.1627	1.3400e-003	0.1641	0.0432	1.2400e-003	0.0445							146.9622
<b>Total</b>	<b>0.0783</b>	<b>0.5057</b>	<b>0.6852</b>	<b>2.7900e-003</b>	<b>0.1918</b>	<b>2.2700e-003</b>	<b>0.1941</b>	<b>0.0516</b>	<b>2.1300e-003</b>	<b>0.0538</b>							<b>261.0183</b>

### 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	0.0804	1.6476	2.0754	3.3500e-003		0.0987	0.0987		0.0987	0.0987							286.4460
<b>Total</b>	<b>0.0804</b>	<b>1.6476</b>	<b>2.0754</b>	<b>3.3500e-003</b>		<b>0.0987</b>	<b>0.0987</b>		<b>0.0987</b>	<b>0.0987</b>							<b>286.4460</b>

### 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
Vendor	0.0144	0.4559	0.1236	1.1700e-003	0.0291	9.3000e-004	0.0300	8.4000e-003	8.9000e-004	9.2900e-003							114.0561
Worker	0.0639	0.0497	0.5616	1.6200e-003	0.1627	1.3400e-003	0.1641	0.0432	1.2400e-003	0.0445							146.9622
<b>Total</b>	<b>0.0783</b>	<b>0.5057</b>	<b>0.6852</b>	<b>2.7900e-003</b>	<b>0.1918</b>	<b>2.2700e-003</b>	<b>0.1941</b>	<b>0.0516</b>	<b>2.1300e-003</b>	<b>0.0538</b>							<b>261.0183</b>

### 3.8 Construction Building 2 - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4169	3.4442	3.6793	6.6000e-003		0.1671	0.1671		0.1603	0.1603						564.2517
Total	0.4169	3.4442	3.6793	6.6000e-003		0.1671	0.1671		0.1603	0.1603						564.2517

### 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
Vendor	0.0265	0.8532	0.2304	2.2900e-003	0.0573	1.6000e-003	0.0589	0.0165	1.5300e-003	0.0181						222.6737
Worker	0.1180	0.0885	1.0192	3.0900e-003	0.3205	2.5600e-003	0.3231	0.0851	2.3600e-003	0.0875						279.2824
Total	0.1445	0.9417	1.2495	5.3800e-003	0.3778	4.1600e-003	0.3820	0.1017	3.8900e-003	0.1056						501.9561

### 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	0.1583	3.2452	4.0880	6.6000e-003		0.1943	0.1943		0.1943	0.1943						564.2510
Total	0.1583	3.2452	4.0880	6.6000e-003		0.1943	0.1943		0.1943	0.1943						564.2510

### 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	
Vendor	0.0265	0.8532	0.2304	2.2900e-003	0.0573	1.6000e-003	0.0589	0.0165	1.5300e-003	0.0181						222.6737	
Worker	0.1180	0.0885	1.0192	3.0900e-003	0.3205	2.5600e-003	0.3231	0.0851	2.3600e-003	0.0875						279.2824	
Total	0.1445	0.9417	1.2495	5.3800e-003	0.3778	4.1600e-003	0.3820	0.1017	3.8900e-003	0.1056						501.9561	

### 3.8 Construction Building 2 - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr												MT/yr				
Off-Road	0.0327	0.2663	0.3092	5.6000e-004		0.0122	0.0122		0.0117	0.0117						47.7431	
Total	0.0327	0.2663	0.3092	5.6000e-004		0.0122	0.0122		0.0117	0.0117						47.7431	

#### 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	
Vendor	1.6700e-003	0.0546	0.0175	1.9000e-004	4.8500e-003	6.0000e-005	4.9100e-003	1.4000e-003	6.0000e-005	1.4600e-003						18.2494	
Worker	9.3900e-003	6.7700e-003	0.0793	2.5000e-004	0.0271	2.1000e-004	0.0273	7.2000e-003	1.9000e-004	7.4000e-003						22.7658	

Total	0.0111	0.0613	0.0968	4.4000e-004	0.0320	2.7000e-004	0.0322	8.6000e-003	2.5000e-004	8.8600e-003							41.0152
-------	--------	--------	--------	-------------	--------	-------------	--------	-------------	-------------	-------------	--	--	--	--	--	--	---------

### 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	0.0134	0.2746	0.3459	5.6000e-004		0.0164	0.0164		0.0164	0.0164							47.7431
Total	0.0134	0.2746	0.3459	5.6000e-004		0.0164	0.0164		0.0164	0.0164							47.7431

### 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
Vendor	1.6700e-003	0.0546	0.0175	1.9000e-004	4.8500e-003	6.0000e-005	4.9100e-003	1.4000e-003	6.0000e-005	1.4600e-003							18.2494
Worker	9.3900e-003	6.7700e-003	0.0793	2.5000e-004	0.0271	2.1000e-004	0.0273	7.2000e-003	1.9000e-004	7.4000e-003							22.7658
Total	0.0111	0.0613	0.0968	4.4000e-004	0.0320	2.7000e-004	0.0322	8.6000e-003	2.5000e-004	8.8600e-003							41.0152

### **3.9 Architectural Coating - 2022**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1178						0.0000	0.0000		0.0000	0.0000					0.0000

Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.1178	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000

## **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	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000	
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>								

## **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	1.1178						0.0000	0.0000	0.0000	0.0000						0.0000	
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000						0.0000	
<b>Total</b>	<b>1.1178</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>						<b>0.0000</b>	

### **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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

### 3.9 Architectural Coating - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1007						0.0000	0.0000		0.0000	0.0000					0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000
Total	1.1007	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000					0.0000

#### 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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

#### 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	1.1007						0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>1.1007</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>

#### 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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>							<b>0.0000</b>							

#### **3.10 Construction Building 3 - 2022**

##### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0353	0.2914	0.3113	5.6000e-004		0.0141	0.0141		0.0136	0.0136							47.7444
<b>Total</b>	<b>0.0353</b>	<b>0.2914</b>	<b>0.3113</b>	<b>5.6000e-004</b>		<b>0.0141</b>	<b>0.0141</b>		<b>0.0136</b>	<b>0.0136</b>							<b>47.7444</b>

##### 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	
Vendor	2.2400e-003	0.0722	0.0195	1.9000e-004	4.8500e-003	1.4000e-004	4.9900e-003	1.4000e-003	1.3000e-004	1.5300e-003						18.8416	
Worker	9.9900e-003	7.4900e-003	0.0862	2.6000e-004	0.0271	2.2000e-004	0.0273	7.2000e-003	2.0000e-004	7.4000e-003						23.6316	
Total	0.0122	0.0797	0.1057	4.5000e-004	0.0320	3.6000e-004	0.0323	8.6000e-003	3.3000e-004	8.9300e-003						42.4732	

## **Mitigated Construction On-Site**

## **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	
Vendor	2.2400e-003	0.0722	0.0195	1.9000e-004	4.8500e-003	1.4000e-004	4.9900e-003	1.4000e-003	1.3000e-004	1.5300e-003						18.8416	
Worker	9.9900e-003	7.4900e-003	0.0862	2.6000e-004	0.0271	2.2000e-004	0.0273	7.2000e-003	2.0000e-004	7.4000e-003						23.6316	
Total	0.0122	0.0797	0.1057	4.5000e-004	0.0320	3.6000e-004	0.0323	8.6000e-003	3.3000e-004	8.9300e-003						42.4732	

**3.10 Construction Building 3 - 2023**

### **Unmitigated Construction On-Site**

## **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
Vendor	9.6900e-003	0.3174	0.1018	1.0900e-003	0.0282	3.7000e-004	0.0286	8.1500e-003	3.5000e-004	8.5000e-003						106.178
Worker	0.0546	0.0394	0.4614	1.4600e-003	0.1578	1.2200e-003	0.1590	0.0419	1.1300e-003	0.0430						132.455
Total	0.0643	0.3568	0.5631	2.5500e-003	0.1860	1.5900e-003	0.1876	0.0501	1.4800e-003	0.0515						238.633

### **Mitigated Construction On-Site**

### 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	
Vendor	9.6900e-003	0.3174	0.1018	1.0900e-003	0.0282	3.7000e-004	0.0286	8.1500e-003	3.5000e-004	8.5000e-003						106.1782	
Worker	0.0546	0.0394	0.4614	1.4600e-003	0.1578	1.2200e-003	0.1590	0.0419	1.1300e-003	0.0430						132.4557	
Total	0.0643	0.3568	0.5631	2.5500e-003	0.1860	1.5900e-003	0.1876	0.0501	1.4800e-003	0.0515						238.6339	

### **3.11 Paving Building 1 - 2022**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr												MT/yr				
Off-Road	0.0342	0.2911	0.3216	5.5000e-004		0.0150	0.0150		0.0142	0.0142						47.0259	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000	
Total	0.0342	0.2911	0.3216	5.5000e-004		0.0150	0.0150		0.0142	0.0142						47.0259	

#### 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	

## **Mitigated Construction On-Site**

## **Mitigated Construction Off-Site**

**3.12 Paving Building 2 - 2023**

## **Unmitigated Construction On-Site**

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

Category	tons/yr										MT/yr				
	Off-Road	0.0628	0.5290	0.6270	1.0800e-003		0.0260	0.0260		0.0247	0.0247				91.9146
Paving		0.0000					0.0000	0.0000		0.0000	0.0000				0.0000
Total		0.0628	0.5290	0.6270	1.0800e-003		0.0260	0.0260		0.0247	0.0247				91.9146

#### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	1.1200e-003	0.0366	0.0117	1.3000e-004	3.2500e-003	4.0000e-005	3.2900e-003	9.4000e-004	4.0000e-005	9.8000e-004						12.2295
Worker	5.7100e-003	4.1200e-003	0.0482	1.5000e-004	0.0165	1.3000e-004	0.0166	4.3800e-003	1.2000e-004	4.5000e-003						13.8435
Total	6.8300e-003	0.0407	0.0599	2.8000e-004	0.0197	1.7000e-004	0.0199	5.3200e-003	1.6000e-004	5.4800e-003						26.0729

#### Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0240	0.5054	0.6727	1.0800e-003		0.0310	0.0310		0.0310	0.0310						91.9145
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.0240	0.5054	0.6727	1.0800e-003		0.0310	0.0310		0.0310	0.0310						91.9145

#### 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	
Vendor	1.1200e-003	0.0366	0.0117	1.3000e-004	3.2500e-003	4.0000e-005	3.2900e-003	9.4000e-004	4.0000e-005	9.8000e-004						12.2295	
Worker	5.7100e-003	4.1200e-003	0.0482	1.5000e-004	0.0165	1.3000e-004	0.0166	4.3800e-003	1.2000e-004	4.5000e-003						13.8435	
Total	6.8300e-003	0.0407	0.0599	2.8000e-004	0.0197	1.7000e-004	0.0199	5.3200e-003	1.6000e-004	5.4800e-003						26.0729	

### 3.13 Paving Building 3 - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr												MT/yr				
Off-Road	0.0657	0.5536	0.6561	1.1300e-003		0.0272	0.0272		0.0258	0.0258						96.1897	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000	
Total	0.0657	0.5536	0.6561	1.1300e-003		0.0272	0.0272		0.0258	0.0258						96.1897	

#### 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	
Vendor	1.1700e-003	0.0383	0.0123	1.3000e-004	3.4000e-003	4.0000e-005	3.4500e-003	9.8000e-004	4.0000e-005	1.0200e-003						12.7983	
Worker	5.9800e-003	4.3100e-003	0.0505	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5800e-003	1.2000e-004	4.7100e-003						14.4873	
Total	7.1500e-003	0.0426	0.0627	2.9000e-004	0.0207	1.7000e-004	0.0208	5.5600e-003	1.6000e-004	5.7300e-003						27.2856	

#### Mitigated Construction On-Site

### **Mitigated Construction Off-Site**

## Paseo Marina Buildout - Los Angeles-South Coast County, Annual

**Paseo Marina Buildout**  
**Los Angeles-South Coast County, Annual**

## 1.0 Project Characteristics

---

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	609.00	Space	5.48	243,600.00	0
Unenclosed Parking with Elevator	608.00	Space	5.47	243,200.00	0
High Turnover (Sit Down Restaurant)	13.65	1000sqft	0.31	13,650.00	0
Apartments Mid Rise	658.00	Dwelling Unit	17.32	647,029.00	1882
Strip Mall	13.65	1000sqft	0.31	13,650.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	840	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS of 33.3% for LADWP

Land Use - Site Specific

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Off-road Equipment - Site Specific

Vehicle Trips - Site Specific

Woodstoves - Site Specific

Energy Use - Adjustment for 2016 Title 24

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	2.63	1.75
tblEnergyUse	LightingElect	2.63	1.75
tblEnergyUse	T24E	194.04	139.71
tblEnergyUse	T24E	3.92	0.43
tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	4.20	3.99
tblFireplaces	NumberGas	559.30	592.00
tblFireplaces	NumberNoFireplace	65.80	66.00
tblFireplaces	NumberWood	32.90	0.00
tblFleetMix	FleetMixLandUseSubType	Enclosed Parking with Elevator	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Unenclosed Parking with Elevator	Enclosed Parking with Elevator
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	Strip Mall
tblFleetMix	FleetMixLandUseSubType	Strip Mall	Unenclosed Parking with Elevator
tblLandUse	BuildingSpaceSquareFeet	658,000.00	647,029.00
tblLandUse	LandUseSquareFeet	658,000.00	647,029.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	840
tblProjectCharacteristics	OperationalYear	2018	2023
tblStationaryGeneratorsPumpsEF	NOX_EF	2.85	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.1000e-004
tblVehicleTrips	ST_TR	42.04	40.51
tblVehicleTrips	SU_TR	20.43	19.69
tblVehicleTrips	WD_TR	44.32	42.71
tblWoodstoves	NumberCatalytic	32.90	0.00
tblWoodstoves	NumberNoncatalytic	32.90	0.00

## 2.0 Emissions Summary

### 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr												MT/yr				
Area	2.9103	0.2011	6.8554	1.1400e-003			0.0476	0.0476		0.0476	0.0476						154.3897
Energy	0.0567	0.4940	0.2747	3.0900e-003			0.0392	0.0392		0.0392	0.0392						2,313.8589
Mobile	1.7043	7.6263	21.9440	0.0814	6.8664	0.0621	6.9286	1.8405	0.0578	1.8983							7,532.4585
Stationary	2.4400e-003	8.6900e-003	0.0452	9.0000e-005			3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004						8.2541
Waste							0.0000	0.0000		0.0000	0.0000						241.1161
Water							0.0000	0.0000		0.0000	0.0000						422.8568
<b>Total</b>	<b>4.6738</b>	<b>8.3301</b>	<b>29.1193</b>	<b>0.0857</b>	<b>6.8664</b>	<b>0.1492</b>	<b>7.0157</b>	<b>1.8405</b>	<b>0.1449</b>	<b>1.9854</b>							<b>10,672.9340</b>

### 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	2.8960	0.0784	6.8031	3.6000e-004			0.0376	0.0376		0.0376	0.0376						11.3838
Energy	0.0542	0.4719	0.2641	2.9500e-003			0.0374	0.0374		0.0374	0.0374						2,100.7589
Mobile	1.2785	5.3028	11.2797	0.0353	2.7140	0.0287	2.7426	0.7275	0.0266	0.7541							3,279.6821
Stationary	2.4400e-003	8.6900e-003	0.0452	9.0000e-005			3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004						8.2541
Waste							0.0000	0.0000		0.0000	0.0000						120.5581
Water							0.0000	0.0000		0.0000	0.0000						338.2854
<b>Total</b>	<b>4.2310</b>	<b>5.8617</b>	<b>18.3921</b>	<b>0.0387</b>	<b>2.7140</b>	<b>0.1040</b>	<b>2.8180</b>	<b>0.7275</b>	<b>0.1020</b>	<b>0.8295</b>							<b>5,858.9223</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	9.47	29.63	36.84	54.79	60.47	30.28	59.83	60.47	29.59	58.22	0.00	0.00	0.00	0.00	0.00	45.10

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	1.2785	5.3028	11.2797	0.0353	2.7140	0.0287	2.7426	0.7275	0.0266	0.7541						3,279.682	
																1	
Unmitigated	1.7043	7.6263	21.9440	0.0814	6.8664	0.0621	6.9286	1.8405	0.0578	1.8983						7,532.458	
																5	

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartments Mid Rise	4,375.70	4,204.62	3855.88	14,615,159		5,776,698	
Enclosed Parking with Elevator	0.00	0.00	0.00				
High Turnover (Sit Down Restaurant)	1,735.60	2,161.75	1799.62	2,460,757		972,624	
Strip Mall	582.99	552.96	268.77	1,015,629		401,431	
Unenclosed Parking with Elevator	0.00	0.00	0.00				
Total	6,694.29	6,919.33	5,924.26	18,091,545		7,150,753	

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid 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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Unenclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

#### 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					1,561.7217
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000					1,749.2170
NaturalGas Mitigated	0.0542	0.4719	0.2641	2.9500e-003			0.0374	0.0374		0.0374	0.0374					539.0372
NaturalGas Unmitigated	0.0567	0.4940	0.2747	3.0900e-003			0.0392	0.0392		0.0392	0.0392					564.6419

## 5.2 Energy by Land Use - NaturalGas

## Unmitigated

## Mitigated

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.7361e+006				1,045.6219
Enclosed Parking with Elevator	577332				220.6317
High Turnover (Sit Down Restaurant)	605651				231.4539
Strip Mall	186323				71.2045
Unenclosed Parking with Elevator	471808				180.3050
<b>Total</b>					<b>1,749.2170</b>

### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.53509e+006				968.8037
Enclosed Parking with Elevator	460282				175.9003
High Turnover (Sit Down Restaurant)	566878				216.6365
Strip Mall	158934				60.7377
Unenclosed Parking with Elevator	365408				139.6434
<b>Total</b>					<b>1,561.7217</b>

## 6.0 Area Detail

## **6.1 Mitigation Measures Area**

## No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.8960	0.0784	6.8031	3.6000e-004		0.0376	0.0376		0.0376	0.0376						11.3838
Unmitigated	2.9103	0.2011	6.8554	1.1400e-003		0.0476	0.0476		0.0476	0.0476						154.3897

## 6.2 Area by SubCategory

## Unmitigated

## Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.2219						0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	2.4682						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
Landscaping	0.2060	0.0784	6.8031	3.6000e-004			0.0376	0.0376		0.0376	0.0376						11.3838
<b>Total</b>	<b>2.8960</b>	<b>0.0784</b>	<b>6.8031</b>	<b>3.6000e-004</b>			<b>0.0376</b>	<b>0.0376</b>		<b>0.0376</b>	<b>0.0376</b>						<b>11.3838</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				338.2854
Unmitigated				422.8568

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	42.8713 / 27.0276				386.4387
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	4.14324 / 0.264462				27.3795
Strip Mall	1.01109 / 0.6197				9.0386
Unenclosed Parking with Elevators	0 / 0				0.0000
<b>Total</b>					<b>422.8568</b>

### Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	34.2971 / 21.6221				309.1509
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	3.31459 / 0.211569				21.9036
Strip Mall	0.808872 / 0.49576				7.2309
Unenclosed Parking with Elevators	0 / 0				0.0000
<b>Total</b>					<b>338.2854</b>

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

#### Category/Year

	Total CO2	CH4	N2O	CO2e
MT/yr				
Mitigated				120.5581
Unmitigated				241.1161

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use					
	tons	MT/yr			
Apartments Mid Rise	302.68				152.2182
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	162.44				81.6913
Strip Mall	14.33				7.2066
Unenclosed Parking with Elevator	0				0.0000
<b>Total</b>					<b>241.1161</b>

### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	151.34				76.1091
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	81.22				40.8457
Strip Mall	7.165				3.6033
Unenclosed Parking with Elevator	0				0.0000
<b>Total</b>					<b>120.5581</b>

## **10.0 Stationary Equipment**

## **Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0.33	12	600	0.73	Diesel

## 10.1 Stationary Sources

## **Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (200-750 HP)	2.4400e-003	8.6900e-003	0.0452	9.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004						8.2541
<b>Total</b>	<b>2.4400e-003</b>	<b>8.6900e-003</b>	<b>0.0452</b>	<b>9.0000e-005</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>						<b>8.2541</b>