APPENDIX B

Air Quality Assessment

AIR QUALITY ASSESSMENT

Cypress Point
54 Unit Residential Development
City of Oceanside, CA

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EXECUTIVE SUMMARY

This air quality impact study has been completed to determine air quality impacts (if any) associated with the development of the proposed 54-unit singe family development. The proposed Project site is located at the terminus of Pala Road and Los Arbolitos Boulevard in the City of Oceanside. The project site including the area necessary to complete the roadway alignments adjacent to the site is roughly 7.3 acres.

Based upon this analysis, no direct or cumulative air quality impacts are expected from construction. Therefore, mitigation measures for criteria pollutants and fugitive dust from construction are not required. It should be noted that the project applicant has indicated that as a design feature all diesel equipment would be Tier 4 with Diesel Particulate Filters (DPF) and that the grading contractor follow Best Management Practices (BMPs) for grading as it relates to minimizing air quality emissions and would comply with all SDAPCD rules and regulations.

A diesel particulate health risk analysis was conducted, and based on diesel exhaust emission quantities, the proposed project would generate less than significant diesel particulate health risk impacts during construction. Again, as a design feature, the project will utilize Tier 4 construction equipment and since all air quality modeling assumptions have included this feature, the Tier 4 construction equipment with DPFs would be a requirement for the project to implement and would be a condition of approval by the City of Oceanside for this project.

The proposed project was analyzed for both a winter and summer operational environment. Based on the models, the project would not create any significant operation air quality impacts. Therefore, no operational mitigation measures are required.

Odor impacts from construction operations would be expected though would be considered short-term events and would not be considered a significant impact. Long term operational odors would not be expected.

Finally, the Project site is zoned RS – Single family Residential and the 54 unit development would not require zoning modifications. Based on this, the project would be consistent with the growth assumptions in the City's General Plan and would not conflict with the RAQS or SIP.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality study is to determine potential air quality impacts (if any) that may be created by construction, area or operational emissions (short term or long term) from the proposed Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to mitigate those impacts to the extent feasible.

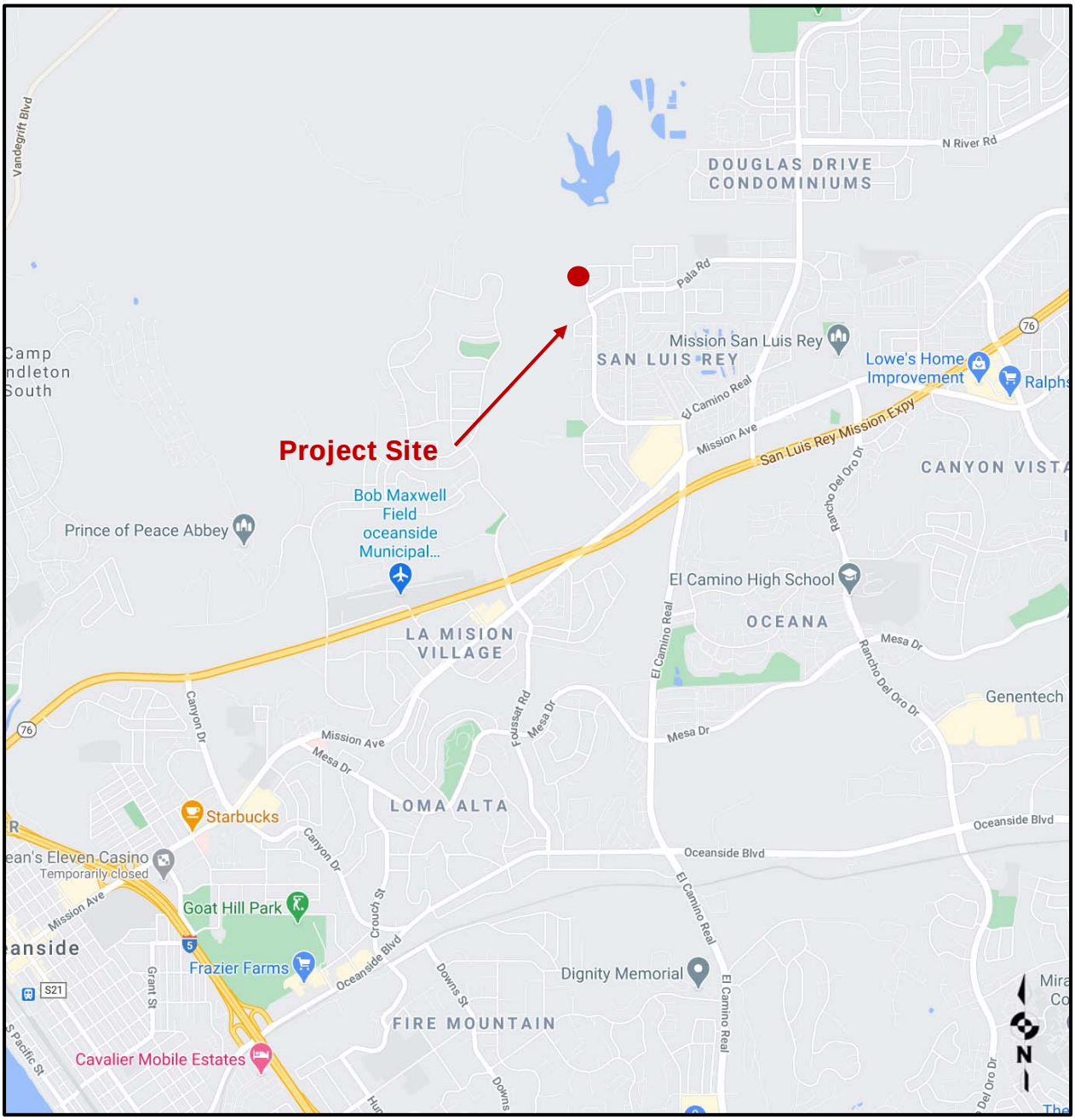
1.2 Project Location

The proposed project is located just north at the terminus of Pala Road and is located west of Los Arbolitos boulevard in the City of Oceanside. A general project vicinity map is shown in Figure 1–A on the following page.

1.3 Project Description

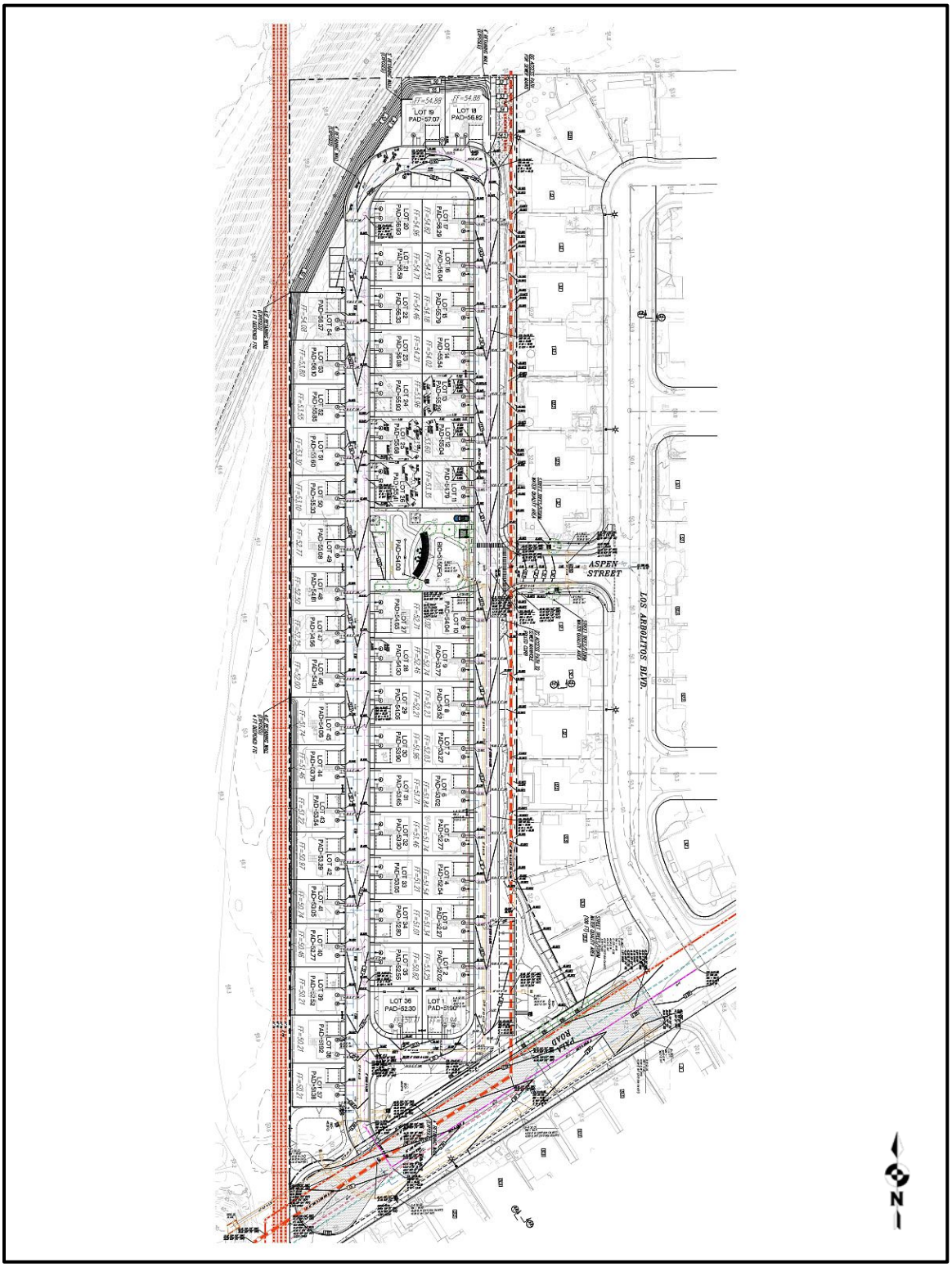
The proposed project seeks to construct fifty-four (54) single family residential units along with all necessary roadway improvements at Aspen Street and Pala Road. The Project would have 8 low-income affordable units mixed within the development. Currently the site is within a flood zone and will be raised two to three feet which will require an import of 35,000 Cubic Yards (CY) of soil. As a design feature to the project, all units will receive natural gas fireplaces and an average of three kilowatts (3 KW) of solar per unit. A site development plan is shown in Figure 1-B on Page 3 of this report.

Figure 1-A: Project Vicinity Map



Source: (Google 2020)

Figure 1-B: Proposed Project Site Plan



Source: (Concordia , 2020)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The existing site consists a vacant site which is located within a flood plain. Residential developments exist to the east and south. The San Luis Rey River exists to the west of the project site. Elevations at the property are approximately 50 feet above mean sea level.

2.2 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heats up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego mostly sunny and warm. Typically, during the winter months, the high-pressure system drops to the south and brings cooler, moister weather from the north. It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SDAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning.

Meteorological trends within Oceanside produce daytime highs typically ranging between 65ºF in the winter to approximately 78ºF in the summer with August usually being the hottest month. Median temperatures range from approximately 55ºF in the winter to approximately 70ºF in the summer. The average humidity is approximately 64% in the winter and about 72% in the summer (City-Data, 2020).

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. ***Primary Standards*** set limits for the intention of protecting public health, which includes sensitive populations such as people with asthma, children and elderly.

Secondary Standards set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

1. ***Carbon Monoxide (CO):*** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.*
2. ***Lead (Pb):*** *is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.*
3. ***Nitrogen Dioxide (NO_2):*** *is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO_2 is usually visible as a reddish-brown air layer over urban areas. NO_2 along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.*
4. ***Particulate Matter (PM_{10} or $PM_{2.5}$):*** *is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM_{10} particles are 10 microns (µm) or less and $PM_{2.5}$ particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.*
5. ***Ozone (O_3)****: is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals*

directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.

6. ***Sulfur Dioxide (SO_2)**: is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.*

2.3.2 State Standards and Definitions

The State of California Air Resources Board (ARB) sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS and also set limits for four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. ***Visibility Reducing Particles**: Particles in the air that obstruct the visibility.*
2. ***Sulfates**: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.*
3. ***Hydrogen Sulfide (H_2S)**: is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H_2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some people with asthma. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death.*
4. ***Vinyl Chloride**: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).*

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	**Average Time**	**California Standards[1]**		**Federal Standards[2]**		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter (PM2.5)[9]	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3	15 µg/m3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-	-	-
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)[8]	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm[8] (188/ µg/m3)	-	
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm[10] (for Certain Areas)	-	Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9]
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm[10] (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3)	-	
Lead[12,13]	30 Day Average	1.5 µg/m3	Atomic Absorption	-		-
	Calendar Quarter	-		1.5 µg/m3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 13				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (WRCC, 2018)

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM2.5 standard and many areas are in non-attainment for PM10 as well. California therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed to attain ambient air quality standards.

The San Diego Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within County and all Cities within. Therefore, the SDAPCD developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status for state ozone standards with control measures focused on Volatile Organic Compounds (VOCs) and oxides of nitrogen (NOX). Currently, San Diego is in "non-attainment" status for federal and state O3 and State PM10 and PM2.5. An attainment plan is available for O3. The RAQS was adopted in 1992 and has been updated as recently as 2016 which was the latest update incorporating minor changes to the prior 2009 update.

The 2016 update mostly summarizes how the 2009 update has lowered NOX and VOCs emissions which reduces ozone and clarifies and enhances emission reductions by introducing for discussion three new VOC and four new NOX reduction measures. NOX and VOCs are precursors to the formation of ozone in the atmosphere. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years. A complete listing of the current attainment status for criteria pollutants with respect to both federal and state nonattainment status by pollutants for County is shown in Table 2.2 on the following page (SDAPCD, 2018).

The RAQS is largely based on population predictions by the San Diego Association of Governments (SANDAG). Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS. Projects that create more growth than projected by SANDAG may create a significant impact if the Project produces unmitigable air quality emissions or if the Project produces cumulative impacts.

Table 2.2: San Diego County Air Basin Attainment Status by Pollutant

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

** The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.*
*** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.*
(SDAPCD, 2019)

2.4 California Environmental Quality Act Significance Thresholds

The California Environmental Quality Act (CEQA) has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA guidelines and are as follows:

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

A: Conflict with or obstruct implementation of the applicable air quality plan?
B: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
C: Expose sensitive receptors to substantial pollutant concentrations?
D: Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

2.5 SDAPCD Rule 20.2 – Air Quality Impact Assessment Screening Thresholds

The SDAPCD has established thresholds in Rule 20.2 for new or modified stationary sources. The County's Guidelines for Determining Significance and Report Format and Content Requirements incorporate screening level thresholds from Rule 20.2 for use in all County

related Air Quality Impact Assessments (AQIA) and for determining CEQA air quality impacts (County of San Diego, 2007). These screening criteria can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. Also, since SDAPCD does not have air quality impact threshold for VOCs, it is acceptable to use the Coachella Valley VOC threshold from South Coast Air Quality Management District (SCAQMD). Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3 on the following page.

Non-Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that projects that propose to increase cancer risk to between 1 and 10 in one million need to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. At no time shall the Project increase the incremental cancer risk to over 10 in one million or a health hazard index (chronic and acute) greater than one. Projects creating cancer risks less than one in one million are not required to implement T-BACT technology.

The U.S. EPA uses the term VOC and the CARB's Emission Inventory Branch (EIB) uses the term Reactive Organic Gases (ROG) to essentially define the same thing. There are minor deviations between compounds that define each term however for purposes of this study we will assume they are essentially the same due to the fact SCAQMD interchanges these words and because Air Quality models directly calculates ROG in place of VOC.

Table 2.3: Screening Level Thresholds for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55
Nitrogen Oxide (NO_x)	250
Sulfur Oxide (SO_x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55
Nitrogen Oxide (NO_x)	250
Sulfur Oxide (SO_x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SDAPCD is responsible for monitoring and reporting monitoring data (SDAPCD, 2020). SDAPCD operates monitoring sites, which collect data on criteria pollutants.

The closest monitoring locations to the Project site is the Camp Pendleton monitoring location roughly 3.5 miles to the west, and the Escondido monitoring station roughly 16 miles to the southeast. Table 2.4 on the following page identifies the criteria pollutants monitored at the aforementioned stations.

Table 2.4: Three-Year Ambient Air Quality Summary near the Project Site

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2015	2016	2017	Days Exceeded over 3 years
O_3 (ppm)	Camp Pendleton or Escondido Monitoring Station	1 Hour	0.09 ppm	No Standard	0.09	0.08	0.09	0
		8 Hour	0.070 ppm	0.070 ppm	0.08	0.07	0.08	10
* PM_{10} ($\mu g/m^3$)		24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$	30	-	-	N/A
		Annual Arithmetic Mean	20 $\mu g/m^3$	No Standard	19.4	-	-	N/A
* $PM_{2.5}$ ($\mu g/m^3$)		24 Hour	No Standard	35 $\mu g/m^3$	29.4	-	-	N/A
		Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	8.6	-	-	N/A
NO_2 (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.006	0.006	0.006	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.060	0.072	0.063	N/A
* CO (ppm)		1 Hour	20 ppm	35 ppm	3.1	-	-	N/A
		8 Hour	9 ppm	9 ppm	2.0	-	-	N/A

Notes:
1. - Yearly maximums marked with "-" indicated data was not available for either monitoring station.
2. Days exceeded marked with "N/A" indicate no data available
3. * Data was selected from the Escondido Monitoring Station. All other data presented was collected at the Camp Pendleton Monitoring Station.
4. SO_2 is only monitored at the El Cajon Monitoring Station. Within the entire County of San Diego, SO_2 emissions within the County are essentially Zero for all metrics including the Average, Maximum 24 hour and 1- hour standards. The Highest 1-hr measurement identified is .004 ppm and the most restrictive standard (CAAQS for SO_2) is 0.25 ppm.
5. Three years of data from 2015 to 2017 is shown since Escondido no longer collects data. The data for 2018 and 2019 is similar.

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the Project and uses methodologies presented in the U.S. EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in ***Attachment A*** to this report.

The AERMOD dispersion model will be used to determine the concentration for air pollutants at any location near the pollutant generator. Additionally, the model will predict the maximum exposure distance and concentrations. The notable toxic air contaminant from construction is diesel exhaust since exposure to diesel exhaust is known to cause cancer and acute and chronic health effects. Diesel exhaust emissions can be estimated using the annual PM_{10} exhaust emissions from onsite construction operations obtained from the annual CalEEMod model output by summing each onsite source for the construction duration. The AERMOD files for the Project are provided in ***Attachment B*** which include the project design feature to utilize Tier 4 diesel equipment.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst-case cancer risk dose calculation is defined in Equation 1 below (OEHHA, February 2015):

Equation 1 $$Dose_{air} = C_{air} * (BR/BW) * A * EF * (1x10^{-6})$$

$Dose_{air}$	=	Dose through inhalation (mg/kg/d)
C_{air}	=	Concentration in air (µg/m3) Annual average DPM concentration in µg/m3 -AERMOD predicts annual averages.
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
1x10-6	=	Milligrams to micrograms conversion (10^{-3} mg/ µg), cubic meters to liters conversion (10^{-3} m^3/l)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are shown within the Project models attached to this report. The worst-case cancer risk calculation is defined in Equation 2 below (OEHHA, February 2015):

Equation 2

$$RISK_{inh\text{-}res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

$RISK_{inh\text{-}res}$	=	Residential inhalation cancer risk
$DOSE_{air}$	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

The California Office of Environmental Health Hazard Assessment (OEHHA) recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans. Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9-and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years. Health risk calculations are shown in ***Attachment C*** to this report.

Non-Cancer risks or risks defined as chronic or acute are also known with respect to DPM and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health Hazard Assessment (OEHHA, February 2015). Diesel Exhaust has a REL of 5 $\mu g/m^3$ and targets the respiratory system.

A graphical representation of the modeling locations is shown on a site aerial below in Figure 3-A. The red points (1-5) represent the sensitive residential receptor locations where air quality emissions are calculated by AERMOD.

Figure 3-A: Construction Health Risk Model Setup

Source: (Google Earth Pro, 2020)

3.2 Construction Assumptions

The Project construction dates were estimated based on a construction kickoff starting in 2023 with construction completed in 2024. The existing site is located within a flood plain so during grading operations, the site will require import of roughly 35,000 CY. CalEEMod Version 2016.3.2 was utilized for all construction calculations and has been manually updated to reflect SDAPCD Rule 67 paint Volatile Organic Compound (VOC) limits. Table 3.1 shows the expected timeframes for the construction processes for all the Proposed Project infrastructure, facilities, improvements and structures at the site, as well as the expected number of pieces of equipment have been verified by the applicants Project Engineer. Based on discussions with the Project applicant, the project will utilize Tier 4 equipment with DPFs attached.

Table 3.1: Proposed Construction Phase and Duration

Equipment Identification	Proposed Start	Proposed Completion	Quantity
Site Preparation	01/01/2023	01/13/2023	
Graders			3
Tractors/Loaders/Backhoes			4
Grading	01/14/2023	02/28/2023	
Excavators			1
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			3
Building Construction	03/01/2023	03/28/2023	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Paving	03/29/2023	02/13/2024	
Cement and Mortar Mixers			2
Pavers			2
Rollers			2
Architectural Coating	12/01/2023	02/13/2024	
Air Compressors			1

3.3 Operational Emissions

Once construction is completed the Proposed Project would generate emissions from daily operations which would include sources such as area, energy, waste and water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. It is assumed that an average of 10 percent of the structural surface area will be re-painted with coatings compliant with SDAPCD Rule 67. Energy sources would be from uses such as onsite natural gas use and electricity which are based on default settings within CalEEMod.

Finally, the Project would also generate emissions through the use of vehicles for transportation. The Project was estimated to generate 540 average daily trips (ADT) (LLG Engineers, 2020). These daily trips were utilized within the CalEEMod analysis using an urban setting. Vehicle Miles Traveled (VMT) was manually updated within the model to reflect the estimated VMT per trip within the County of San Diego area which includes Oceanside as is estimated by EMFAC 2014 which is provided as ***Attachment D*** to this report.

3.4 Odor Impacts

Potential onsite odor generators would only be expected during short term construction activities such as paving and possibly painting however, the odors would be considered short term and would not have a potential to create offensive odors and would therefore not be considered an impact under CEQA.

4.0 FINDINGS

4.1 Construction Findings

Construction of the proposed project is expected to start 2023 and be completed in 2024. Since the project is within a flood zone, the project would be required to import roughly 35,000 CY of soil during grading operations and was modeled as such. The construction emissions are shown in Table 4.1 below.

Given these findings, no direct construction impacts are expected. Mitigation measures for criteria pollutants and fugitive dust from construction is not required. The project applicant has indicated that as a design feature all diesel equipment would be Tier 4 with DPF and that the grading contractor would follow Best Management Practices (BMPs) for grading as it relates to minimizing air quality emissions and would comply with all SDAPCD rules and regulations.

Table 4.1: Expected Construction Emissions Summary – Pounds per Day

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2023	23.39	19.09	24.45	0.11	18.21	0.04	18.22	9.97	0.04	9.98
2024	23.39	2.85	19.92	0.03	0.23	0.01	0.24	0.06	0.01	0.07
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
Impact?	**No**	**No**	**No**	**No**	-	-	**No**	-	-	**No**

4.2 Construction Health Risks

The nearest sensitive receptors to the Project site are identified in Figure 3-A above. Based upon the annual air quality modeling results attached to this report, worst-case PM_{10} from exhaust emissions would cumulatively produce 0.00096 tons (over the total construction duration of 408-days) or an average of $2.47x10^{-5}$ grams/second. The average emission rate over the grading area is $8.35x10^{-10}$ $g/m^2/s$, which was calculated as follows:

$$\frac{2.47\text{x}10 - 5\,\frac{grams}{second}}{7.3\ acres * 4{,}046\,\frac{meters^2}{acre}} = 8.35 * 10^{-10}\ \frac{\frac{grams}{meters^2}}{second}$$

Utilizing the AERMOD dispersion model, we find that the worst-case annual concentration of DPM from construction is 0.0931 µg/m^3. Utilizing the risk equation identified above in Section 3.1, the inhalation cancer risk for the closest residential receptor was found to be 1.85 per one million exposed which would not exceed the 10 per one million exposed significance thresholds. Given this, a less than significant health risk impact would be expected.

Finally, there are known chronic health risks associated with diesel exhaust which are considered non-cancer risks. These risks are calculated based on methods identified in Section 3.1 of this report. From this we find that the annual concentration of 0.036 µg/m3 divided by the REL of 5 µg/m^3 yields a Health Hazard Index of 0.0019, which is less than one. Therefore, a less than significant chronic health risk is expected.

4.3 Operational Findings

Project full buildout operations are expected in 2025 and was modeled as such. Additionally, the model was run for the summer and winter scenarios to determine maximum daily operational impacts for operation.

The expected daily pollutant generation can be calculated utilizing the product of the average daily miles traveled and the expected emissions inventory calculated by EMFAC2014; CALEEMOD 2016.3.2 performs this calculation. The daily pollutants calculated for summer and winter are shown in Tables 4.2 and 4.3. Based upon these calculations, the proposed project would produce less than significant air quality impacts under CEQA.

Table 4.2: Expected Summer Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area	2.65	0.95	4.83	0.01	0.10	0.10
Energy	0.04	0.32	0.14	0.00	0.03	0.03
Mobile	0.62	2.26	5.98	0.02	2.01	0.55
Total	**3.31**	**3.52**	**10.95**	**0.03**	**2.13**	**0.67**
County Thresholds	75	250	550	250	100	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Daily pollutant generation assumes trip distances within CalEEMod
The final numbers are all rounded within Excel and are reported as rounded numbers.

Table 4.3: Expected Winter Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area	2.65	0.95	4.83	0.01	0.10	0.10
Energy	0.04	0.32	0.14	0.00	0.03	0.03
Mobile	0.60	2.30	6.02	0.02	2.01	0.55
Total	**3.29**	**3.56**	**10.99**	**0.03**	**2.13**	**0.67**
County Thresholds	75	250	550	250	100	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Daily pollutant generation assumes trip distances within CalEEMod
The final numbers are all rounded within Excel and are reported as rounded numbers.

4.4 Odor Impact Findings

Odor impacts from construction operations would be considered short term and would not be considered an impact. The project would be a residential and would not cause long term odor impacts. Given this a less than significant odor impact is expected for both short and long term scenarios.

4.5 Cumulative Impact Findings

The Project would not generate significant construction or operational impacts as demonstrated within this analysis. Furthermore, the Project would not cause any significant traffic impacts or add a significant number of vehicular trips to the offsite roadway network as was identified in the project traffic study.

Based on discussions with the project applicant, the project is not within ½ mile of any nearby construction projects. Based on this, no cumulative construction impacts would be expected.

Finally, the Project site is zoned C-2/CZ which allows for a density of 1 residential du per 1,000 SF Lot Area or 40 base units. The project is proposing to utilize the City/State Density Bonus program to allow for a density increase over the maximum allowable residential density allowance under the applicable C-2 zoning. Under the program, the project would construct 11 percent of the units with a Very Low-Income affordable units designation or 5 units which will allow for a 35% density bonus resulting in a total of 54 units. Waivers, concessions, and incentives pursuant to State Density Bonus Law will be requested as needed to address potential issues identified in regards to the overall design of the project and compliance with current zoning rules and regulations. Based on this, the Project would not require a rezone for construction and operations and would not generate a significant cumulative operational

impact. Furthermore, since the project would be consistent with the growth assumptions in the City's General Plan, the Project would not conflict with the RAQS or SIP.

4.6 Conclusion of Findings

Based upon this analysis, no direct or cumulative air quality impacts are expected from construction. Therefore, mitigation measures for criteria pollutants and fugitive dust from construction are not required. It should be noted that the project applicant has indicated that as a design feature all diesel equipment would be Tier 4 and that the grading contractor follow Best Management Practices (BMPs) for grading as it relates to minimizing air quality emissions and would comply with all SDAPCD rules and regulations.

A diesel particulate health risk analysis was conducted, and based on diesel exhaust emission quantities, the proposed project would generate less than significant diesel particulate health risk impacts during construction. Again, as a design feature, the project will utilize Tier 4 construction equipment and since all air quality modeling assumptions have included this feature, the Tier 4 construction equipment would be a requirement for the project to implement and would be a condition of approval by the City of Oceanside for this project.

The proposed project was analyzed for both a winter and summer operational environment. Based on the models, the project would not create any significant operation air quality impacts. Therefore, no operational mitigation measures are required.

Odor impacts from construction operations would be expected though would be considered short-term events and would not be considered a significant impact. Long term operational odors would not be expected.

Based on review of the traffic study, the nearest cumulative construction projects would be two housing projects located over ½ mile away each and the Tri City Hospital which in mostly constructed and operational. Given this, the proposed project is expected to generate less than significant cumulative construction emission impacts.

Finally, the Project site is zoned RS – Single family Residential and the 54 unit development would not require zoning modifications. Based on this, the project would be consistent with the growth assumptions in the City's General Plan and would not conflict with the RAQS or SIP.

5.0 REFERENCES

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6.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the proposed project. This report was prepared utilizing the latest emission rates and reduction methodologies.

DRAFT

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Date January 21, 2021

ATTACHMENT A

CALEEMOD 2013.2.2 – Summer, Winter, Annual

Cypress Point Single Family Development (54 units)

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	54.00	Dwelling Unit	7.30	97,200.00	154

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	430.68	**CH4 Intensity (lb/MWhr)**	0.017	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Cypress Point Single Family Development (54 units) - San Diego County, Summer

Project Characteristics - RPS 2025

Land Use - Site is roughly 7.3 acres disturbed which includes roadway access points

Construction Phase - CS

Grading - 35,000 CY import

Architectural Coating - Rule 67 Paint

Vehicle Trips - Per Traffic Study. 5.39 VMT/Trip based on EMFAC 2014 for 2025

Woodstoves - all natural gas hearths

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	32.00

tblConstructionPhase	NumDays	20.00	53.00
tblFireplaces	NumberGas	29.70	54.00
tblFireplaces	NumberNoFireplace	5.40	0.00
tblFireplaces	NumberWood	18.90	0.00
tblGrading	MaterialImported	0.00	35,000.00
tblLandUse	LotAcreage	17.53	7.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.017
tblProjectCharacteristics	CO2IntensityFactor	720.49	430.68
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	HO_TL	7.50	5.39
tblVehicleTrips	HO_TTP	39.60	39.00
tblVehicleTrips	HS_TL	7.30	5.39
tblVehicleTrips	HS_TTP	18.80	19.00
tblVehicleTrips	HW_TL	10.80	5.39
tblVehicleTrips	HW_TTP	41.60	42.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	WD_TR	9.52	10.00
tblWoodstoves	NumberCatalytic	2.70	0.00
tblWoodstoves	NumberNoncatalytic	2.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	24.7998	35.4564	21.4451	0.1098	18.2141	1.2670	19.4811	9.9699	1.1656	11.1355	0.0000	11,706.9104	11,706.9104	1.6975	0.0000	11,749.3475
2024	24.6836	15.1503	18.6005	0.0331	0.2296	0.6760	0.9055	0.0618	0.6395	0.7013	0.0000	3,171.5641	3,171.5641	0.6353	0.0000	3,187.4461
Maximum	**24.7998**	**35.4564**	**21.4451**	**0.1098**	**18.2141**	**1.2670**	**19.4811**	**9.9699**	**1.1656**	**11.1355**	**0.0000**	**11,706.9104**	**11,706.9104**	**1.6975**	**0.0000**	**11,749.3475**

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					
2023	23.3929	19.0942	24.4471	0.1098	18.2141	0.0405	18.2244	9.9699	0.0390	9.9801	0.0000	11,706.9104	11,706.9104	1.6975	0.0000	11,749.3475
2024	23.3888	2.8512	19.9162	0.0331	0.2296	8.4600e-003	0.2380	0.0618	8.3400e-003	0.0701	0.0000	3,171.5641	3,171.5641	0.6353	0.0000	3,187.4461
Maximum	**23.3929**	**19.0942**	**24.4471**	**0.1098**	**18.2141**	**0.0405**	**18.2244**	**9.9699**	**0.0390**	**9.9801**	**0.0000**	**11,706.9104**	**11,706.9104**	**1.6975**	**0.0000**	**11,749.3475**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.46**	**56.64**	**-10.78**	**0.00**	**0.00**	**97.48**	**9.44**	**0.00**	**97.38**	**15.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387
Energy	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Mobile	0.6236	2.2586	5.9787	0.0214	1.9945	0.0166	2.0111	0.5329	0.0154	0.5484		2,185.8508	2,185.8508	0.1101		2,188.6023
Total	**3.3127**	**3.5245**	**10.9464**	**0.0294**	**1.9945**	**0.1395**	**2.1340**	**0.5329**	**0.1383**	**0.6713**	**0.0000**	**3,744.4588**	**3,744.4588**	**0.1475**	**0.0284**	**3,756.6168**

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	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387
Energy	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Mobile	0.6236	2.2586	5.9787	0.0214	1.9945	0.0166	2.0111	0.5329	0.0154	0.5484		2,185.8508	2,185.8508	0.1101		2,188.6023
Total	**3.3127**	**3.5245**	**10.9464**	**0.0294**	**1.9945**	**0.1395**	**2.1340**	**0.5329**	**0.1383**	**0.6713**	**0.0000**	**3,744.4588**	**3,744.4588**	**0.1475**	**0.0284**	**3,756.6168**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/28/2023	5	32	
3	Paving	Paving	3/1/2023	3/28/2023	5	20	
4	Building Construction	Building Construction	3/29/2023	2/13/2024	5	230	
5	Architectural Coating	Architectural Coating	12/1/2023	2/13/2024	5	53	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16

Acres of Paving: 0

Residential Indoor: 196,830; Residential Outdoor: 65,610; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	3,461.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	19.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**18.0663**	**1.2660**	**19.3323**	**9.9307**	**1.1647**	**11.0954**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0557	0.0337	0.4124	1.3600e-003	0.1479	9.8000e-004	0.1489	0.0392	9.0000e-004	0.0401		135.8221	135.8221	3.5100e-003		135.9099
Total	**0.0557**	**0.0337**	**0.4124**	**1.3600e-003**	**0.1479**	**9.8000e-004**	**0.1489**	**0.0392**	**9.0000e-004**	**0.0401**		**135.8221**	**135.8221**	**3.5100e-003**		**135.9099**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**18.0663**	**9.3100e-003**	**18.0756**	**9.9307**	**9.3100e-003**	**9.9400**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0557	0.0337	0.4124	1.3600e-003	0.1479	9.8000e-004	0.1489	0.0392	9.0000e-004	0.0401		135.8221	135.8221	3.5100e-003		135.9099
Total	**0.0557**	**0.0337**	**0.4124**	**1.3600e-003**	**0.1479**	**9.8000e-004**	**0.1489**	**0.0392**	**9.0000e-004**	**0.0401**		**135.8221**	**135.8221**	**3.5100e-003**		**135.9099**

3.3 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**6.5523**	**0.7749**	**7.3273**	**3.3675**	**0.7129**	**4.0804**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5390	17.4925	6.3507	0.0790	1.8899	0.0324	1.9222	0.5179	0.0310	0.5489		8,721.0344	8,721.0344	0.7655		8,740.1712
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0281	0.3437	1.1400e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		113.1851	113.1851	2.9300e-003		113.2582
Total	**0.5854**	**17.5205**	**6.6944**	**0.0802**	**2.0131**	**0.0332**	**2.0463**	**0.5506**	**0.0317**	**0.5823**		**8,834.2194**	**8,834.2194**	**0.7684**		**8,853.4294**

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**6.5523**	**7.2600e-003**	**6.5596**	**3.3675**	**7.2600e-003**	**3.3747**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5390	17.4925	6.3507	0.0790	1.8899	0.0324	1.9222	0.5179	0.0310	0.5489		8,721.0344	8,721.0344	0.7655		8,740.1712
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0281	0.3437	1.1400e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		113.1851	113.1851	2.9300e-003		113.2582
Total	**0.5854**	**17.5205**	**6.6944**	**0.0802**	**2.0131**	**0.0332**	**2.0463**	**0.5506**	**0.0317**	**0.5823**		**8,834.2194**	**8,834.2194**	**0.7684**		**8,853.4294**

3.4 Paving - 2023

Unmitigated Construction On-Site

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

3.4 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0281	0.3437	1.1400e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		113.1851	113.1851	2.9300e-003		113.2582
Total	**0.0464**	**0.0281**	**0.3437**	**1.1400e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**113.1851**	**113.1851**	**2.9300e-003**		**113.2582**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0281	0.3437	1.1400e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		113.1851	113.1851	2.9300e-003		113.2582
Total	**0.0464**	**0.0281**	**0.3437**	**1.1400e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**113.1851**	**113.1851**	**2.9300e-003**		**113.2582**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0130	0.4546	0.1351	1.5600e-003	0.0406	5.4000e-004	0.0412	0.0117	5.1000e-004	0.0122		168.7902	168.7902	0.0111		169.0674
Worker	0.0588	0.0356	0.4353	1.4400e-003	0.1561	1.0300e-003	0.1571	0.0414	9.5000e-004	0.0424		143.3678	143.3678	3.7100e-003		143.4604
Total	**0.0718**	**0.4901**	**0.5704**	**3.0000e-003**	**0.1967**	**1.5700e-003**	**0.1983**	**0.0531**	**1.4600e-003**	**0.0546**		**312.1580**	**312.1580**	**0.0148**		**312.5278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0130	0.4546	0.1351	1.5600e-003	0.0406	5.4000e-004	0.0412	0.0117	5.1000e-004	0.0122		168.7902	168.7902	0.0111		169.0674
Worker	0.0588	0.0356	0.4353	1.4400e-003	0.1561	1.0300e-003	0.1571	0.0414	9.5000e-004	0.0424		143.3678	143.3678	3.7100e-003		143.4604
Total	**0.0718**	**0.4901**	**0.5704**	**3.0000e-003**	**0.1967**	**1.5700e-003**	**0.1983**	**0.0531**	**1.4600e-003**	**0.0546**		**312.1580**	**312.1580**	**0.0148**		**312.5278**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.4482	0.1309	1.5500e-003	0.0406	5.2000e-004	0.0411	0.0117	5.0000e-004	0.0122		167.7046	167.7046	0.0110		167.9785
Worker	0.0559	0.0326	0.4070	1.3800e-003	0.1561	1.0100e-003	0.1571	0.0414	9.3000e-004	0.0423		137.7191	137.7191	3.4100e-003		137.8042
Total	**0.0684**	**0.4808**	**0.5379**	**2.9300e-003**	**0.1967**	**1.5300e-003**	**0.1982**	**0.0531**	**1.4300e-003**	**0.0545**		**305.4236**	**305.4236**	**0.0144**		**305.7827**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.4482	0.1309	1.5500e-003	0.0406	5.2000e-004	0.0411	0.0117	5.0000e-004	0.0122		167.7046	167.7046	0.0110		167.9785
Worker	0.0559	0.0326	0.4070	1.3800e-003	0.1561	1.0100e-003	0.1571	0.0414	9.3000e-004	0.0423		137.7191	137.7191	3.4100e-003		137.8042
Total	**0.0684**	**0.4808**	**0.5379**	**2.9300e-003**	**0.1967**	**1.5300e-003**	**0.1982**	**0.0531**	**1.4300e-003**	**0.0545**		**305.4236**	**305.4236**	**0.0144**		**305.7827**

3.6 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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**23.1428**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0124	7.4900e-003	0.0916	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		30.1827	30.1827	7.8000e-004		30.2022
Total	**0.0124**	**7.4900e-003**	**0.0916**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9200e-003**		**30.1827**	**30.1827**	**7.8000e-004**		**30.2022**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**22.9808**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0124	7.4900e-003	0.0916	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		30.1827	30.1827	7.8000e-004		30.2022
Total	**0.0124**	**7.4900e-003**	**0.0916**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9200e-003**		**30.1827**	**30.1827**	**7.8000e-004**		**30.2022**

3.6 Architectural Coating - 2024

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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**23.1319**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0118	6.8700e-003	0.0857	2.9000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		28.9935	28.9935	7.2000e-004		29.0114
Total	**0.0118**	**6.8700e-003**	**0.0857**	**2.9000e-004**	**0.0329**	**2.1000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**28.9935**	**28.9935**	**7.2000e-004**		**29.0114**

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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**22.9808**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0118	6.8700e-003	0.0857	2.9000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		28.9935	28.9935	7.2000e-004		29.0114
Total	**0.0118**	**6.8700e-003**	**0.0857**	**2.9000e-004**	**0.0329**	**2.1000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**28.9935**	**28.9935**	**7.2000e-004**		**29.0114**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6236	2.2586	5.9787	0.0214	1.9945	0.0166	2.0111	0.5329	0.0154	0.5484		2,185.8508	2,185.8508	0.1101		2,188.6023
Unmitigated	0.6236	2.2586	5.9787	0.0214	1.9945	0.0166	2.0111	0.5329	0.0154	0.5484		2,185.8508	2,185.8508	0.1101		2,188.6023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	540.00	540.00	540.00	940,859	940,859
Total	540.00	540.00	540.00	940,859	940,859

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	5.39	5.39	5.39	42.00	19.00	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
NaturalGas Unmitigated	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757

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					
Single Family Housing	3459.98	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Total		**0.0373**	**0.3189**	**0.1357**	**2.0400e-003**		**0.0258**	**0.0258**		**0.0258**	**0.0258**		**407.0568**	**407.0568**	**7.8000e-003**	**7.4600e-003**	**409.4757**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	3.45998	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Total		**0.0373**	**0.3189**	**0.1357**	**2.0400e-003**		**0.0258**	**0.0258**		**0.0258**	**0.0258**		**407.0568**	**407.0568**	**7.8000e-003**	**7.4600e-003**	**409.4757**

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	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387
Unmitigated	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387

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	0.3333					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0801					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1048	0.8958	0.3812	5.7200e-003		0.0724	0.0724		0.0724	0.0724	0.0000	1,143.5294	1,143.5294	0.0219	0.0210	1,150.3248
Landscaping	0.1336	0.0513	4.4509	2.4000e-004		0.0247	0.0247		0.0247	0.0247		8.0218	8.0218	7.6800e-003		8.2139
Total	**2.6518**	**0.9470**	**4.8320**	**5.9600e-003**		**0.0971**	**0.0971**		**0.0971**	**0.0971**	**0.0000**	**1,151.5512**	**1,151.5512**	**0.0296**	**0.0210**	**1,158.5387**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3333					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0801					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1048	0.8958	0.3812	5.7200e-003		0.0724	0.0724		0.0724	0.0724	0.0000	1,143.5294	1,143.5294	0.0219	0.0210	1,150.3248
Landscaping	0.1336	0.0513	4.4509	2.4000e-004		0.0247	0.0247		0.0247	0.0247		8.0218	8.0218	7.6800e-003		8.2139
Total	**2.6518**	**0.9470**	**4.8320**	**5.9600e-003**		**0.0971**	**0.0971**		**0.0971**	**0.0971**	**0.0000**	**1,151.5512**	**1,151.5512**	**0.0296**	**0.0210**	**1,158.5387**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Cypress Point Single Family Development (54 units)

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	54.00	Dwelling Unit	7.30	97,200.00	154

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	430.68	**CH4 Intensity (lb/MWhr)**	0.017	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Cypress Point Single Family Development (54 units) - San Diego County, Winter

Project Characteristics - RPS 2025

Land Use - Site is roughly 7.3 acres disturbed which includes roadway access points

Construction Phase - CS

Grading - 35,000 CY import

Architectural Coating - Rule 67 Paint

Vehicle Trips - Per Traffic Study. 5.39 VMT/Trip based on EMFAC 2014 for 2025

Woodstoves - all natural gas hearths

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	32.00

tblConstructionPhase	NumDays	20.00	53.00
tblFireplaces	NumberGas	29.70	54.00
tblFireplaces	NumberNoFireplace	5.40	0.00
tblFireplaces	NumberWood	18.90	0.00
tblGrading	MaterialImported	0.00	35,000.00
tblLandUse	LotAcreage	17.53	7.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.017
tblProjectCharacteristics	CO2IntensityFactor	720.49	430.68
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	HO_TL	7.50	5.39
tblVehicleTrips	HO_TTP	39.60	39.00
tblVehicleTrips	HS_TL	7.30	5.39
tblVehicleTrips	HS_TTP	18.80	19.00
tblVehicleTrips	HW_TL	10.80	5.39
tblVehicleTrips	HW_TTP	41.60	42.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	WD_TR	9.52	10.00
tblWoodstoves	NumberCatalytic	2.70	0.00
tblWoodstoves	NumberNoncatalytic	2.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	24.8105	35.5251	21.7150	0.1084	18.2141	1.2670	19.4811	9.9699	1.1656	11.1355	0.0000	11,548.0435	11,548.0435	1.7178	0.0000	11,590.9890
2024	24.6940	15.1531	18.5809	0.0330	0.2296	0.6760	0.9056	0.0618	0.6395	0.7013	0.0000	3,157.0788	3,157.0788	0.6356	0.0000	3,172.9693
Maximum	**24.8105**	**35.5251**	**21.7150**	**0.1084**	**18.2141**	**1.2670**	**19.4811**	**9.9699**	**1.1656**	**11.1355**	**0.0000**	**11,548.0435**	**11,548.0435**	**1.7178**	**0.0000**	**11,590.9890**

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					
2023	23.4036	19.1630	24.7170	0.1084	18.2141	0.0415	18.2244	9.9699	0.0400	9.9801	0.0000	11,548.0435	11,548.0435	1.7178	0.0000	11,590.9890
2024	23.3992	2.8540	19.8966	0.0330	0.2296	8.4900e-003	0.2381	0.0618	8.3700e-003	0.0702	0.0000	3,157.0788	3,157.0788	0.6356	0.0000	3,172.9693
Maximum	**23.4036**	**19.1630**	**24.7170**	**0.1084**	**18.2141**	**0.0415**	**18.2244**	**9.9699**	**0.0400**	**9.9801**	**0.0000**	**11,548.0435**	**11,548.0435**	**1.7178**	**0.0000**	**11,590.9890**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.46**	**56.56**	**-10.72**	**0.00**	**0.00**	**97.43**	**9.44**	**0.00**	**97.32**	**15.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387
Energy	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Mobile	0.6008	2.2970	6.0192	0.0203	1.9945	0.0167	2.0112	0.5329	0.0155	0.5485		2,072.3476	2,072.3476	0.1119		2,075.1453
Total	**3.2899**	**3.5628**	**10.9869**	**0.0283**	**1.9945**	**0.1396**	**2.1341**	**0.5329**	**0.1384**	**0.6714**	**0.0000**	**3,630.9556**	**3,630.9556**	**0.1493**	**0.0284**	**3,643.1597**

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	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387
Energy	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Mobile	0.6008	2.2970	6.0192	0.0203	1.9945	0.0167	2.0112	0.5329	0.0155	0.5485		2,072.3476	2,072.3476	0.1119		2,075.1453
Total	**3.2899**	**3.5628**	**10.9869**	**0.0283**	**1.9945**	**0.1396**	**2.1341**	**0.5329**	**0.1384**	**0.6714**	**0.0000**	**3,630.9556**	**3,630.9556**	**0.1493**	**0.0284**	**3,643.1597**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/28/2023	5	32	
3	Paving	Paving	3/1/2023	3/28/2023	5	20	
4	Building Construction	Building Construction	3/29/2023	2/13/2024	5	230	
5	Architectural Coating	Architectural Coating	12/1/2023	2/13/2024	5	53	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16

Acres of Paving: 0

Residential Indoor: 196,830; Residential Outdoor: 65,610; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Cypress Point Single Family Development (54 units) - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	3,461.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	19.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**18.0663**	**1.2660**	**19.3323**	**9.9307**	**1.1647**	**11.0954**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0635	0.0378	0.3860	1.2800e-003	0.1479	9.8000e-004	0.1489	0.0392	9.0000e-004	0.0401		127.5113	127.5113	3.3100e-003		127.5940
Total	**0.0635**	**0.0378**	**0.3860**	**1.2800e-003**	**0.1479**	**9.8000e-004**	**0.1489**	**0.0392**	**9.0000e-004**	**0.0401**		**127.5113**	**127.5113**	**3.3100e-003**		**127.5940**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0381		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.4656**	**2.0175**	**20.8690**	**0.0381**	**18.0663**	**9.3100e-003**	**18.0756**	**9.9307**	**9.3100e-003**	**9.9400**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0635	0.0378	0.3860	1.2800e-003	0.1479	9.8000e-004	0.1489	0.0392	9.0000e-004	0.0401		127.5113	127.5113	3.3100e-003		127.5940
Total	**0.0635**	**0.0378**	**0.3860**	**1.2800e-003**	**0.1479**	**9.8000e-004**	**0.1489**	**0.0392**	**9.0000e-004**	**0.0401**		**127.5113**	**127.5113**	**3.3100e-003**		**127.5940**

3.3 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**6.5523**	**0.7749**	**7.3273**	**3.3675**	**0.7129**	**4.0804**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5540	17.5578	6.6427	0.0776	1.8899	0.0334	1.9233	0.5179	0.0320	0.5499		8,569.0931	8,569.0931	0.7860		8,588.7425
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0315	0.3217	1.0700e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.2594	106.2594	2.7600e-003		106.3284
Total	**0.6070**	**17.5893**	**6.9643**	**0.0787**	**2.0131**	**0.0343**	**2.0473**	**0.5506**	**0.0327**	**0.5834**		**8,675.3525**	**8,675.3525**	**0.7887**		**8,695.0708**

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**6.5523**	**7.2600e-003**	**6.5596**	**3.3675**	**7.2600e-003**	**3.3747**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5540	17.5578	6.6427	0.0776	1.8899	0.0334	1.9233	0.5179	0.0320	0.5499		8,569.0931	8,569.0931	0.7860		8,588.7425
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0315	0.3217	1.0700e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.2594	106.2594	2.7600e-003		106.3284
Total	**0.6070**	**17.5893**	**6.9643**	**0.0787**	**2.0131**	**0.0343**	**2.0473**	**0.5506**	**0.0327**	**0.5834**		**8,675.3525**	**8,675.3525**	**0.7887**		**8,695.0708**

3.4 Paving - 2023

Unmitigated Construction On-Site

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

3.4 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0315	0.3217	1.0700e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.2594	106.2594	2.7600e-003		106.3284
Total	**0.0529**	**0.0315**	**0.3217**	**1.0700e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.2594**	**106.2594**	**2.7600e-003**		**106.3284**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0315	0.3217	1.0700e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.2594	106.2594	2.7600e-003		106.3284
Total	**0.0529**	**0.0315**	**0.3217**	**1.0700e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.2594**	**106.2594**	**2.7600e-003**		**106.3284**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0137	0.4525	0.1483	1.5200e-003	0.0406	5.7000e-004	0.0412	0.0117	5.4000e-004	0.0122		164.4416	164.4416	0.0117		164.7338
Worker	0.0671	0.0399	0.4074	1.3500e-003	0.1561	1.0300e-003	0.1571	0.0414	9.5000e-004	0.0424		134.5953	134.5953	3.4900e-003		134.6826
Total	**0.0808**	**0.4924**	**0.5557**	**2.8700e-003**	**0.1967**	**1.6000e-003**	**0.1983**	**0.0531**	**1.4900e-003**	**0.0546**		**299.0369**	**299.0369**	**0.0152**		**299.4164**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0137	0.4525	0.1483	1.5200e-003	0.0406	5.7000e-004	0.0412	0.0117	5.4000e-004	0.0122		164.4416	164.4416	0.0117		164.7338
Worker	0.0671	0.0399	0.4074	1.3500e-003	0.1561	1.0300e-003	0.1571	0.0414	9.5000e-004	0.0424		134.5953	134.5953	3.4900e-003		134.6826
Total	**0.0808**	**0.4924**	**0.5557**	**2.8700e-003**	**0.1967**	**1.6000e-003**	**0.1983**	**0.0531**	**1.4900e-003**	**0.0546**		**299.0369**	**299.0369**	**0.0152**		**299.4164**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0132	0.4462	0.1436	1.5100e-003	0.0406	5.5000e-004	0.0412	0.0117	5.2000e-004	0.0122		163.4141	163.4141	0.0115		163.7026
Worker	0.0639	0.0366	0.3804	1.3000e-003	0.1561	1.0100e-003	0.1571	0.0414	9.3000e-004	0.0423		129.2973	129.2973	3.2100e-003		129.3774
Total	**0.0771**	**0.4828**	**0.5239**	**2.8100e-003**	**0.1967**	**1.5600e-003**	**0.1983**	**0.0531**	**1.4500e-003**	**0.0546**		**292.7114**	**292.7114**	**0.0148**		**293.0800**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0132	0.4462	0.1436	1.5100e-003	0.0406	5.5000e-004	0.0412	0.0117	5.2000e-004	0.0122		163.4141	163.4141	0.0115		163.7026
Worker	0.0639	0.0366	0.3804	1.3000e-003	0.1561	1.0100e-003	0.1571	0.0414	9.3000e-004	0.0423		129.2973	129.2973	3.2100e-003		129.3774
Total	**0.0771**	**0.4828**	**0.5239**	**2.8100e-003**	**0.1967**	**1.5600e-003**	**0.1983**	**0.0531**	**1.4500e-003**	**0.0546**		**292.7114**	**292.7114**	**0.0148**		**293.0800**

3.6 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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**23.1428**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0141	8.4000e-003	0.0858	2.8000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		28.3359	28.3359	7.4000e-004		28.3542
Total	**0.0141**	**8.4000e-003**	**0.0858**	**2.8000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9200e-003**		**28.3359**	**28.3359**	**7.4000e-004**		**28.3542**

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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**22.9808**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0141	8.4000e-003	0.0858	2.8000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		28.3359	28.3359	7.4000e-004		28.3542
Total	**0.0141**	**8.4000e-003**	**0.0858**	**2.8000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9200e-003**		**28.3359**	**28.3359**	**7.4000e-004**		**28.3542**

3.6 Architectural Coating - 2024

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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**23.1319**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0135	7.7000e-003	0.0801	2.7000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		27.2205	27.2205	6.8000e-004		27.2374
Total	**0.0135**	**7.7000e-003**	**0.0801**	**2.7000e-004**	**0.0329**	**2.1000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**27.2205**	**27.2205**	**6.8000e-004**		**27.2374**

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	22.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**22.9808**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0135	7.7000e-003	0.0801	2.7000e-004	0.0329	2.1000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		27.2205	27.2205	6.8000e-004		27.2374
Total	**0.0135**	**7.7000e-003**	**0.0801**	**2.7000e-004**	**0.0329**	**2.1000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**27.2205**	**27.2205**	**6.8000e-004**		**27.2374**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6008	2.2970	6.0192	0.0203	1.9945	0.0167	2.0112	0.5329	0.0155	0.5485		2,072.3476	2,072.3476	0.1119		2,075.1453
Unmitigated	0.6008	2.2970	6.0192	0.0203	1.9945	0.0167	2.0112	0.5329	0.0155	0.5485		2,072.3476	2,072.3476	0.1119		2,075.1453

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	540.00	540.00	540.00	940,859	940,859
Total	540.00	540.00	540.00	940,859	940,859

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	5.39	5.39	5.39	42.00	19.00	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
NaturalGas Unmitigated	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757

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					
Single Family Housing	3459.98	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Total		**0.0373**	**0.3189**	**0.1357**	**2.0400e-003**		**0.0258**	**0.0258**		**0.0258**	**0.0258**		**407.0568**	**407.0568**	**7.8000e-003**	**7.4600e-003**	**409.4757**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	3.45998	0.0373	0.3189	0.1357	2.0400e-003		0.0258	0.0258		0.0258	0.0258		407.0568	407.0568	7.8000e-003	7.4600e-003	409.4757
Total		**0.0373**	**0.3189**	**0.1357**	**2.0400e-003**		**0.0258**	**0.0258**		**0.0258**	**0.0258**		**407.0568**	**407.0568**	**7.8000e-003**	**7.4600e-003**	**409.4757**

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	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387
Unmitigated	2.6518	0.9470	4.8320	5.9500e-003		0.0971	0.0971		0.0971	0.0971	0.0000	1,151.5512	1,151.5512	0.0296	0.0210	1,158.5387

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	0.3333					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0801					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1048	0.8958	0.3812	5.7200e-003		0.0724	0.0724		0.0724	0.0724	0.0000	1,143.5294	1,143.5294	0.0219	0.0210	1,150.3248
Landscaping	0.1336	0.0513	4.4509	2.4000e-004		0.0247	0.0247		0.0247	0.0247		8.0218	8.0218	7.6800e-003		8.2139
Total	**2.6518**	**0.9470**	**4.8320**	**5.9600e-003**		**0.0971**	**0.0971**		**0.0971**	**0.0971**	**0.0000**	**1,151.5512**	**1,151.5512**	**0.0296**	**0.0210**	**1,158.5387**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3333					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.0801					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1048	0.8958	0.3812	5.7200e-003		0.0724	0.0724		0.0724	0.0724	0.0000	1,143.5294	1,143.5294	0.0219	0.0210	1,150.3248
Landscaping	0.1336	0.0513	4.4509	2.4000e-004		0.0247	0.0247		0.0247	0.0247		8.0218	8.0218	7.6800e-003		8.2139
Total	**2.6518**	**0.9470**	**4.8320**	**5.9600e-003**		**0.0971**	**0.0971**		**0.0971**	**0.0971**	**0.0000**	**1,151.5512**	**1,151.5512**	**0.0296**	**0.0210**	**1,158.5387**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Cypress Point Single Family Development (54 units)

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	54.00	Dwelling Unit	7.30	97,200.00	154

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	430.68	**CH4 Intensity (lb/MWhr)**	0.017	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Cypress Point Single Family Development (54 units) - San Diego County, Annual

Project Characteristics - RPS 2025

Land Use - Site is roughly 7.3 acres disturbed which includes roadway access points

Construction Phase - CS

Grading - 35,000 CY import

Architectural Coating - Rule 67 Paint

Vehicle Trips - Per Traffic Study. 5.39 VMT/Trip based on EMFAC 2014 for 2025

Woodstoves - all natural gas hearths

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	32.00

tblConstructionPhase	NumDays	20.00	53.00
tblFireplaces	NumberGas	29.70	54.00
tblFireplaces	NumberNoFireplace	5.40	0.00
tblFireplaces	NumberWood	18.90	0.00
tblGrading	MaterialImported	0.00	35,000.00
tblLandUse	LotAcreage	17.53	7.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.017
tblProjectCharacteristics	CO2IntensityFactor	720.49	430.68
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	HO_TL	7.50	5.39
tblVehicleTrips	HO_TTP	39.60	39.00
tblVehicleTrips	HS_TL	7.30	5.39
tblVehicleTrips	HS_TTP	18.80	19.00
tblVehicleTrips	HW_TL	10.80	5.39
tblVehicleTrips	HW_TTP	41.60	42.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	WD_TR	9.52	10.00
tblWoodstoves	NumberCatalytic	2.70	0.00
tblWoodstoves	NumberNoncatalytic	2.70	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.4672	2.2984	2.2696	5.1700e-003	0.2480	0.0946	0.3426	0.1179	0.0885	0.2065	0.0000	466.8682	466.8682	0.0928	0.0000	469.1879
2024	0.3950	0.2425	0.2972	5.3000e-004	3.5900e-003	0.0108	0.0144	9.7000e-004	0.0102	0.0112	0.0000	45.8837	45.8837	9.2200e-003	0.0000	46.1142
Maximum	**0.4672**	**2.2984**	**2.2696**	**5.1700e-003**	**0.2480**	**0.0946**	**0.3426**	**0.1179**	**0.0885**	**0.2065**	**0.0000**	**466.8682**	**466.8682**	**0.0928**	**0.0000**	**469.1879**

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					
2023	0.3022	0.6041	2.4785	5.1700e-003	0.2480	1.5400e-003	0.2495	0.1179	1.5100e-003	0.1194	0.0000	466.8679	466.8679	0.0928	0.0000	469.1876
2024	0.3742	0.0457	0.3183	5.3000e-004	3.5900e-003	1.4000e-004	3.7200e-003	9.7000e-004	1.3000e-004	1.1000e-003	0.0000	45.8836	45.8836	9.2200e-003	0.0000	46.1142
Maximum	**0.3742**	**0.6041**	**2.4785**	**5.1700e-003**	**0.2480**	**1.5400e-003**	**0.2495**	**0.1179**	**1.5100e-003**	**0.1194**	**0.0000**	**466.8679**	**466.8679**	**0.0928**	**0.0000**	**469.1876**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**21.54**	**74.42**	**-8.96**	**0.00**	**0.00**	**98.41**	**29.05**	**0.00**	**98.34**	**44.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	0.8931	0.3619
2	4-1-2023	6-30-2023	0.5369	0.1015
3	7-1-2023	9-30-2023	0.5428	0.1027
4	10-1-2023	12-31-2023	0.8141	0.3591
5	1-1-2024	3-31-2024	0.6262	0.4126
		Highest	0.8931	0.4126

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	0.4568	0.0413	0.4162	2.6000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	43.1880	43.1880	1.4400e-003	7.8000e-004	43.4565
Energy	6.8100e-003	0.0582	0.0248	3.7000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	152.7968	152.7968	4.6600e-003	2.0300e-003	153.5180
Mobile	0.1063	0.4198	1.0769	3.7300e-003	0.3545	3.0300e-003	0.3575	0.0949	2.8100e-003	0.0977	0.0000	345.9411	345.9411	0.0182	0.0000	346.3961
Waste						0.0000	0.0000		0.0000	0.0000	12.8169	0.0000	12.8169	0.7575	0.0000	31.7532
Water						0.0000	0.0000		0.0000	0.0000	1.1162	13.7636	14.8798	0.1152	2.8300e-003	18.6042
Total	**0.5699**	**0.5193**	**1.5178**	**4.3600e-003**	**0.3545**	**0.0129**	**0.3674**	**0.0949**	**0.0127**	**0.1076**	**13.9331**	**555.6895**	**569.6225**	**0.8969**	**5.6400e-003**	**593.7280**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4568	0.0413	0.4162	2.6000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	43.1880	43.1880	1.4400e-003	7.8000e-004	43.4565
Energy	6.8100e-003	0.0582	0.0248	3.7000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	152.7968	152.7968	4.6600e-003	2.0300e-003	153.5180
Mobile	0.1063	0.4198	1.0769	3.7300e-003	0.3545	3.0300e-003	0.3575	0.0949	2.8100e-003	0.0977	0.0000	345.9411	345.9411	0.0182	0.0000	346.3961
Waste						0.0000	0.0000		0.0000	0.0000	12.8169	0.0000	12.8169	0.7575	0.0000	31.7532
Water						0.0000	0.0000		0.0000	0.0000	0.8930	11.6800	12.5730	0.0922	2.2700e-003	15.5551
Total	**0.5699**	**0.5193**	**1.5178**	**4.3600e-003**	**0.3545**	**0.0129**	**0.3674**	**0.0949**	**0.0127**	**0.1076**	**13.7098**	**553.6059**	**567.3157**	**0.8739**	**5.0800e-003**	**590.6788**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.60**	**0.37**	**0.40**	**2.57**	**9.93**	**0.51**

3.0 Construction Detail

Construction Phase

Cypress Point Single Family Development (54 units) - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/28/2023	5	32	
3	Paving	Paving	3/1/2023	3/28/2023	5	20	
4	Building Construction	Building Construction	3/29/2023	2/13/2024	5	230	
5	Architectural Coating	Architectural Coating	12/1/2023	2/13/2024	5	53	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16

Acres of Paving: 0

Residential Indoor: 196,830; Residential Outdoor: 65,610; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	3,461.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	19.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Site Preparation - 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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0903**	**6.3300e-003**	**0.0967**	**0.0497**	**5.8200e-003**	**0.0555**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	1.9400e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5842	0.5842	2.0000e-005	0.0000	0.5845
Total	**2.8000e-004**	**1.9000e-004**	**1.9400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5842**	**0.5842**	**2.0000e-005**	**0.0000**	**0.5845**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**2.3300e-003**	**0.0101**	**0.1043**	**1.9000e-004**	**0.0903**	**5.0000e-005**	**0.0904**	**0.0497**	**5.0000e-005**	**0.0497**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	1.9400e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5842	0.5842	2.0000e-005	0.0000	0.5845
Total	**2.8000e-004**	**1.9000e-004**	**1.9400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5842**	**0.5842**	**2.0000e-005**	**0.0000**	**0.5845**

3.3 Grading - 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					
Fugitive Dust					0.1048	0.0000	0.1048	0.0539	0.0000	0.0539	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0274	0.2870	0.2360	4.7000e-004		0.0124	0.0124		0.0114	0.0114	0.0000	41.6970	41.6970	0.0135	0.0000	42.0341
Total	**0.0274**	**0.2870**	**0.2360**	**4.7000e-004**	**0.1048**	**0.0124**	**0.1172**	**0.0539**	**0.0114**	**0.0653**	**0.0000**	**41.6970**	**41.6970**	**0.0135**	**0.0000**	**42.0341**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7300e-003	0.2839	0.1037	1.2600e-003	0.0296	5.3000e-004	0.0301	8.1300e-003	5.0000e-004	8.6400e-003	0.0000	125.6592	125.6592	0.0112	0.0000	125.9402
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	7.5000e-004	5.0000e-004	5.1600e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5578	1.5578	4.0000e-005	0.0000	1.5588
Total	**9.4800e-003**	**0.2844**	**0.1088**	**1.2800e-003**	**0.0315**	**5.4000e-004**	**0.0321**	**8.6400e-003**	**5.1000e-004**	**9.1600e-003**	**0.0000**	**127.2169**	**127.2169**	**0.0113**	**0.0000**	**127.4989**

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					0.1048	0.0000	0.1048	0.0539	0.0000	0.0539	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8100e-003	0.0252	0.2840	4.7000e-004		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	41.6969	41.6969	0.0135	0.0000	42.0341
Total	**5.8100e-003**	**0.0252**	**0.2840**	**4.7000e-004**	**0.1048**	**1.2000e-004**	**0.1050**	**0.0539**	**1.2000e-004**	**0.0540**	**0.0000**	**41.6969**	**41.6969**	**0.0135**	**0.0000**	**42.0341**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7300e-003	0.2839	0.1037	1.2600e-003	0.0296	5.3000e-004	0.0301	8.1300e-003	5.0000e-004	8.6400e-003	0.0000	125.6592	125.6592	0.0112	0.0000	125.9402
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	7.5000e-004	5.0000e-004	5.1600e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5578	1.5578	4.0000e-005	0.0000	1.5588
Total	**9.4800e-003**	**0.2844**	**0.1088**	**1.2800e-003**	**0.0315**	**5.4000e-004**	**0.0321**	**8.6400e-003**	**5.1000e-004**	**9.1600e-003**	**0.0000**	**127.2169**	**127.2169**	**0.0113**	**0.0000**	**127.4989**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

3.4 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.1000e-004	3.2300e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9736	0.9736	3.0000e-005	0.0000	0.9742
Total	**4.7000e-004**	**3.1000e-004**	**3.2300e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9736**	**0.9736**	**3.0000e-005**	**0.0000**	**0.9742**

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	2.8000e-003	0.0122	0.1730	2.3000e-004		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0122**	**0.1730**	**2.3000e-004**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.1000e-004	3.2300e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9736	0.9736	3.0000e-005	0.0000	0.9742
Total	**4.7000e-004**	**3.1000e-004**	**3.2300e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9736**	**0.9736**	**3.0000e-005**	**0.0000**	**0.9742**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1557	1.4241	1.6082	2.6700e-003		0.0693	0.0693		0.0652	0.0652	0.0000	229.4867	229.4867	0.0546	0.0000	230.8515
Total	**0.1557**	**1.4241**	**1.6082**	**2.6700e-003**		**0.0693**	**0.0693**		**0.0652**	**0.0652**	**0.0000**	**229.4867**	**229.4867**	**0.0546**	**0.0000**	**230.8515**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0453	0.0140	1.5000e-004	3.9400e-003	5.0000e-005	4.0000e-003	1.1400e-003	5.0000e-005	1.1900e-003	0.0000	14.9952	14.9952	1.0200e-003	0.0000	15.0207
Worker	5.8700e-003	3.8800e-003	0.0405	1.3000e-004	0.0151	1.0000e-004	0.0152	4.0100e-003	9.0000e-005	4.1000e-003	0.0000	12.2089	12.2089	3.2000e-004	0.0000	12.2168
Total	**7.1900e-003**	**0.0492**	**0.0545**	**2.8000e-004**	**0.0190**	**1.5000e-004**	**0.0192**	**5.1500e-003**	**1.4000e-004**	**5.2900e-003**	**0.0000**	**27.2042**	**27.2042**	**1.3400e-003**	**0.0000**	**27.2376**

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	0.0325	0.2212	1.7286	2.6700e-003		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	229.4864	229.4864	0.0546	0.0000	230.8512
Total	**0.0325**	**0.2212**	**1.7286**	**2.6700e-003**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**229.4864**	**229.4864**	**0.0546**	**0.0000**	**230.8512**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0453	0.0140	1.5000e-004	3.9400e-003	5.0000e-005	4.0000e-003	1.1400e-003	5.0000e-005	1.1900e-003	0.0000	14.9952	14.9952	1.0200e-003	0.0000	15.0207
Worker	5.8700e-003	3.8800e-003	0.0405	1.3000e-004	0.0151	1.0000e-004	0.0152	4.0100e-003	9.0000e-005	4.1000e-003	0.0000	12.2089	12.2089	3.2000e-004	0.0000	12.2168
Total	**7.1900e-003**	**0.0492**	**0.0545**	**2.8000e-004**	**0.0190**	**1.5000e-004**	**0.0192**	**5.1500e-003**	**1.4000e-004**	**5.2900e-003**	**0.0000**	**27.2042**	**27.2042**	**1.3400e-003**	**0.0000**	**27.2376**

3.5 Building Construction - 2024

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	0.0236	0.2151	0.2587	4.3000e-004		9.8100e-003	9.8100e-003		9.2300e-003	9.2300e-003	0.0000	37.0959	37.0959	8.7700e-003	0.0000	37.3152
Total	**0.0236**	**0.2151**	**0.2587**	**4.3000e-004**		**9.8100e-003**	**9.8100e-003**		**9.2300e-003**	**9.2300e-003**	**0.0000**	**37.0959**	**37.0959**	**8.7700e-003**	**0.0000**	**37.3152**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1000e-004	7.2200e-003	2.2000e-003	2.0000e-005	6.4000e-004	1.0000e-005	6.5000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	2.4081	2.4081	1.6000e-004	0.0000	2.4121
Worker	9.0000e-004	5.8000e-004	6.1100e-003	2.0000e-005	2.4400e-003	2.0000e-005	2.4500e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	1.8955	1.8955	5.0000e-005	0.0000	1.8967
Total	**1.1100e-003**	**7.8000e-003**	**8.3100e-003**	**4.0000e-005**	**3.0800e-003**	**3.0000e-005**	**3.1000e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**4.3036**	**4.3036**	**2.1000e-004**	**0.0000**	**4.3088**

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	5.2500e-003	0.0358	0.2794	4.3000e-004		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	37.0958	37.0958	8.7700e-003	0.0000	37.3151
Total	**5.2500e-003**	**0.0358**	**0.2794**	**4.3000e-004**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**37.0958**	**37.0958**	**8.7700e-003**	**0.0000**	**37.3151**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1000e-004	7.2200e-003	2.2000e-003	2.0000e-005	6.4000e-004	1.0000e-005	6.5000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	2.4081	2.4081	1.6000e-004	0.0000	2.4121
Worker	9.0000e-004	5.8000e-004	6.1100e-003	2.0000e-005	2.4400e-003	2.0000e-005	2.4500e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	1.8955	1.8955	5.0000e-005	0.0000	1.8967
Total	**1.1100e-003**	**7.8000e-003**	**8.3100e-003**	**4.0000e-005**	**3.0800e-003**	**3.0000e-005**	**3.1000e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**4.3036**	**4.3036**	**2.1000e-004**	**0.0000**	**4.3088**

3.6 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	0.2410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0100e-003	0.0137	0.0190	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.6809	2.6809	1.6000e-004	0.0000	2.6849
Total	**0.2430**	**0.0137**	**0.0190**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.6000e-004**	**0.0000**	**2.6849**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.0000e-004	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2726	0.2726	1.0000e-005	0.0000	0.2728
Total	**1.3000e-004**	**9.0000e-005**	**9.0000e-004**	**0.0000**	**3.4000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2726**	**0.2726**	**1.0000e-005**	**0.0000**	**0.2728**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	1.3500e-003	0.0192	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6809	2.6809	1.6000e-004	0.0000	2.6849
Total	**0.2413**	**1.3500e-003**	**0.0192**	**3.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.6809**	**2.6809**	**1.6000e-004**	**0.0000**	**2.6849**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.0000e-004	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2726	0.2726	1.0000e-005	0.0000	0.2728
Total	**1.3000e-004**	**9.0000e-005**	**9.0000e-004**	**0.0000**	**3.4000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2726**	**0.2726**	**1.0000e-005**	**0.0000**	**0.2728**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3672					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8900e-003	0.0195	0.0290	5.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	4.0852	4.0852	2.3000e-004	0.0000	4.0910
Total	**0.3701**	**0.0195**	**0.0290**	**5.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**4.0852**	**4.0852**	**2.3000e-004**	**0.0000**	**4.0910**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.2000e-004	1.2900e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3991	0.3991	1.0000e-005	0.0000	0.3993
Total	**1.9000e-004**	**1.2000e-004**	**1.2900e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3991**	**0.3991**	**1.0000e-005**	**0.0000**	**0.3993**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3672					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	2.0600e-003	0.0293	5.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0852	4.0852	2.3000e-004	0.0000	4.0910
Total	**0.3677**	**2.0600e-003**	**0.0293**	**5.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0852**	**4.0852**	**2.3000e-004**	**0.0000**	**4.0910**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.2000e-004	1.2900e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3991	0.3991	1.0000e-005	0.0000	0.3993
Total	**1.9000e-004**	**1.2000e-004**	**1.2900e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3991**	**0.3991**	**1.0000e-005**	**0.0000**	**0.3993**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1063	0.4198	1.0769	3.7300e-003	0.3545	3.0300e-003	0.3575	0.0949	2.8100e-003	0.0977	0.0000	345.9411	345.9411	0.0182	0.0000	346.3961
Unmitigated	0.1063	0.4198	1.0769	3.7300e-003	0.3545	3.0300e-003	0.3575	0.0949	2.8100e-003	0.0977	0.0000	345.9411	345.9411	0.0182	0.0000	346.3961

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	540.00	540.00	540.00	940,859	940,859
Total	540.00	540.00	540.00	940,859	940,859

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	5.39	5.39	5.39	42.00	19.00	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	85.4040	85.4040	3.3700e-003	7.9000e-004	85.7247
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	85.4040	85.4040	3.3700e-003	7.9000e-004	85.7247
NaturalGas Mitigated	6.8100e-003	0.0582	0.0248	3.7000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	67.3928	67.3928	1.2900e-003	1.2400e-003	67.7933
NaturalGas Unmitigated	6.8100e-003	0.0582	0.0248	3.7000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	67.3928	67.3928	1.2900e-003	1.2400e-003	67.7933

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					
Single Family Housing	1.26289e+006	6.8100e-003	0.0582	0.0248	3.7000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	67.3928	67.3928	1.2900e-003	1.2400e-003	67.7933
Total		**6.8100e-003**	**0.0582**	**0.0248**	**3.7000e-004**		**4.7000e-003**	**4.7000e-003**		**4.7000e-003**	**4.7000e-003**	**0.0000**	**67.3928**	**67.3928**	**1.2900e-003**	**1.2400e-003**	**67.7933**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.26289e+006	6.8100e-003	0.0582	0.0248	3.7000e-004		4.7000e-003	4.7000e-003		4.7000e-003	4.7000e-003	0.0000	67.3928	67.3928	1.2900e-003	1.2400e-003	67.7933
Total		**6.8100e-003**	**0.0582**	**0.0248**	**3.7000e-004**		**4.7000e-003**	**4.7000e-003**		**4.7000e-003**	**4.7000e-003**	**0.0000**	**67.3928**	**67.3928**	**1.2900e-003**	**1.2400e-003**	**67.7933**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	437178	85.4040	3.3700e-003	7.9000e-004	85.7247
Total		**85.4040**	**3.3700e-003**	**7.9000e-004**	**85.7247**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	437178	85.4040	3.3700e-003	7.9000e-004	85.7247
Total		**85.4040**	**3.3700e-003**	**7.9000e-004**	**85.7247**

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	0.4568	0.0413	0.4162	2.6000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	43.1880	43.1880	1.4400e-003	7.8000e-004	43.4565
Unmitigated	0.4568	0.0413	0.4162	2.6000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	43.1880	43.1880	1.4400e-003	7.8000e-004	43.4565

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	0.0608					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3796					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5331	42.5331	8.2000e-004	7.8000e-004	42.7858
Landscaping	0.0120	4.6100e-003	0.4006	2.0000e-005		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	0.6550	0.6550	6.3000e-004	0.0000	0.6706
Total	**0.4568**	**0.0413**	**0.4162**	**2.5000e-004**		**5.1900e-003**	**5.1900e-003**		**5.1900e-003**	**5.1900e-003**	**0.0000**	**43.1880**	**43.1880**	**1.4500e-003**	**7.8000e-004**	**43.4565**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0608					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3796					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3000e-003	0.0367	0.0156	2.3000e-004		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	42.5331	42.5331	8.2000e-004	7.8000e-004	42.7858
Landscaping	0.0120	4.6100e-003	0.4006	2.0000e-005		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	0.6550	0.6550	6.3000e-004	0.0000	0.6706
Total	**0.4568**	**0.0413**	**0.4162**	**2.5000e-004**		**5.1900e-003**	**5.1900e-003**		**5.1900e-003**	**5.1900e-003**	**0.0000**	**43.1880**	**43.1880**	**1.4500e-003**	**7.8000e-004**	**43.4565**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.5730	0.0922	2.2700e-003	15.5551
Unmitigated	14.8798	0.1152	2.8300e-003	18.6042

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	3.51832 / 2.21807	14.8798	0.1152	2.8300e-003	18.6042
Total		**14.8798**	**0.1152**	**2.8300e-003**	**18.6042**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.81465 / 2.08277	12.5730	0.0922	2.2700e-003	15.5551
Total		**12.5730**	**0.0922**	**2.2700e-003**	**15.5551**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.8169	0.7575	0.0000	31.7532
Unmitigated	12.8169	0.7575	0.0000	31.7532

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	63.14	12.8169	0.7575	0.0000	31.7532
Total		**12.8169**	**0.7575**	**0.0000**	**31.7532**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	63.14	12.8169	0.7575	0.0000	31.7532
Total		**12.8169**	**0.7575**	**0.0000**	**31.7532**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B

AERMOD Outputs

```
1                     AERMOD PRIME - (DATED  19191)

                     AERMODPrMSPx VERSION
              (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on 12/23/2020 at 15:47:55

** BREEZE AERMOD
** Trinity Consultants
** VERSION  9.0

CO STARTING
CO TITLEONE  Cypress Point Residential Development
CO MODELOPT  DFAULT  CONC  NODRYDPLT  NOWETDPLT
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  3GVZ8007  AREAPOLY  468418.3  3677723.7  0
** SRCDESCR  Construction Area
SO SRCPARAM  3GVZ8007  8.35E-10  3  20  1
SO AREAVERT  3GVZ8007  468418.3 3677723.7  468455.4 3677724.1  468451.5 3677563.4  468477 3677561.1
SO AREAVERT  3GVZ8007  468481.2 3677566.3  468483.2 3677540.5  468478.3 3677544.4  468466.1 3677547.6
SO AREAVERT  3GVZ8007  468452.8 3677545  468448 3677446  468468 3677406  468487 3677416  468498.6 3677396.9
SO AREAVERT  3GVZ8007  468389.9 3677328.5  468378.3 3677329.5  468371.9 3677334.7  468373.1 3677346.9
SO AREAVERT  3GVZ8007  468378.6 3677652.1  468399.6 3677697  468418.3 3677723.7
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE DISCCART  468459  3677688.2  0  0
** SENSITIV
** RCPDESCR  R1
RE DISCCART  468455.4  3677573.4  0  0
** SENSITIV
** RCPDESCR  R2
RE DISCCART  468451.9  3677457.3  0  0
** SENSITIV
** RCPDESCR  R3
RE DISCCART  468482.5  3677377.6  0  0
** SENSITIV
** RCPDESCR  R4
RE DISCCART  468387.7  3677318.5  0  0
** SENSITIV
** RCPDESCR  R5
RE FINISHED

ME STARTING
ME SURFFILE  "C:\USERS\RYAN~1.DES\ONEDRIVE\LDNONE~1\METDAT~1\ESCOND~1\ESCONDIDO-2012-V15181.SFC"
** SURFFILE  "C:\USERS\RYAN~1.DES\ONEDRIVE\LDNONE~1\METDAT~1\ESCOND~1\ESCONDIDO-2012-V15181.SFC"
ME PROFFILE  "C:\USERS\RYAN~1.DES\ONEDRIVE\LDNONE~1\METDAT~1\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
** PROFFILE  "C:\USERS\RYAN~1.DES\ONEDRIVE\LDNONE~1\METDAT~1\ESCOND~1\ESCONDIDO-2012-V15181.PFL"
ME SURFDATA  53120 2012
ME UAIRDATA  3190 2012
ME SITEDATA  00001002 2012
ME PROFBASE  0  METERS
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

** **************************************************************************
** It is recommended that the user not edit any data below this line
```

```
** ************************************************************************


** AMPTYPE
** AMPDATUM  -1
** AMPZONE  -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.2572235
63],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transver
se_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]
** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE UserDefined
** AERMODEXE  AERMOD_BREEZE_19191_64.EXE
** AERMAPEXE  AERMAP_EPA_18081_64.EXE



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

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

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


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


    ********   WARNING MESSAGES   ********
 ME W186      61       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.40
 MX W403      61       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  19191 ***   ***  Cypress Point Residential Development                              ***
     12/23/20
 *** AERMET - VERSION  15181 ***   ***                                                                   ***
   15:47:55

   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

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

   --  DEPOSITION LOGIC  --
```

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

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:      1 Source(s);       1 Source Group(s); and       5 Receptor(s)

               with:       0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                and:       0 VOLUME source(s)
                and:       1 AREA type source(s)
                and:       0 LINE source(s)
                and:       0 RLINE/RLINEXT source(s)
                and:       0 OPENPIT source(s)
                and:       0 BUOYANT LINE source(s) with      0 line(s)


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

 **The AERMET Input Meteorological Data Version Date:  15181

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

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

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     0.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                             ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 *** AERMOD - VERSION  19191 ***   ***  Cypress Point Residential Development                          ***
     12/23/20
 *** AERMET - VERSION  15181 ***   ***                                                               ***
   15:47:55

   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data
```

*** AREAPOLY SOURCE DATA ***

```
             NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER      INIT.   URBAN  EMISSION RATE
  SOURCE      PART.  (GRAMS/SEC      X        Y       ELEV.    HEIGHT  OF VERTS.     SZ     SOURCE  SCALAR VARY
    ID        CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)            (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 3GVZ8007        0   0.83500E-09  468418.3 3677723.7     0.0     3.00      20        1.00     NO
```


*** SOURCE IDs DEFINING SOURCE GROUPS ***

```
 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


  ALL        3GVZ8007    ,
```


*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

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

Surface file: C:\USERS\RYAN~1.DES\ONEDRIVE\LDNONE~1\METDAT~1\ESCOND~1\ESCONDIDO-2012-V15181.SF Met Version: 15181
Profile file: C:\USERS\RYAN~1.DES\ONEDRIVE\LDNONE~1\METDAT~1\ESCOND~1\ESCONDIDO-2012-V15181.PF
Surface format: FREE

Profile format: FREE

Surface station no.: 53120 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	51.	10.0	282.5	10.0
12	01	01	1	02	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	64.	10.0	281.9	10.0
12	01	01	1	03	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	31.	10.0	280.9	10.0
12	01	01	1	04	-2.9	0.056	-9.000	-9.000	-999.	32.	5.5	0.15	1.10	1.00	1.18	130.	10.0	280.4	10.0
12	01	01	1	05	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	47.	10.0	280.4	10.0
12	01	01	1	06	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	39.	10.0	279.8	10.0
12	01	01	1	07	-0.7	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	60.	10.0	279.2	10.0
12	01	01	1	08	-0.5	0.029	-9.000	-9.000	-999.	12.	4.0	0.47	1.10	0.50	0.44	42.	10.0	280.4	10.0
12	01	01	1	09	33.3	0.106	0.323	0.014	36.	83.	-3.2	0.47	1.10	0.30	0.44	44.	10.0	285.4	10.0
12	01	01	1	10	85.9	0.121	0.634	0.011	106.	101.	-1.8	0.48	1.10	0.23	0.44	232.	10.0	291.4	10.0
12	01	01	1	11	123.6	0.252	0.982	0.005	273.	303.	-11.5	0.48	1.10	0.21	1.34	242.	10.0	297.5	10.0
12	01	01	1	12	141.2	0.255	1.253	0.005	496.	309.	-10.4	0.48	1.10	0.20	1.34	249.	10.0	299.8	10.0
12	01	01	1	13	139.0	0.308	1.399	0.005	700.	410.	-18.6	0.48	1.10	0.20	1.78	244.	10.0	300.4	10.0
12	01	01	1	14	118.4	0.303	1.510	0.005	1033.	401.	-20.9	0.48	1.10	0.21	1.78	241.	10.0	301.4	10.0
12	01	01	1	15	79.3	0.291	1.390	0.005	1204.	377.	-27.6	0.48	1.10	0.24	1.78	260.	10.0	301.4	10.0
12	01	01	1	16	24.5	0.162	0.951	0.005	1244.	167.	-15.4	0.51	1.10	0.34	0.89	292.	10.0	299.8	10.0
12	01	01	1	17	-2.5	0.060	-9.000	-9.000	-999.	45.	7.5	0.51	1.10	0.61	0.89	282.	10.0	296.9	10.0
12	01	01	1	18	-0.6	0.029	-9.000	-9.000	-999.	12.	3.4	0.47	1.10	1.00	0.44	10.	10.0	293.1	10.0
12	01	01	1	19	-4.0	0.066	-9.000	-9.000	-999.	40.	6.3	0.11	1.10	1.00	1.48	329.	10.0	290.4	10.0
12	01	01	1	20	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	65.	10.0	288.1	10.0
12	01	01	1	21	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	61.	10.0	286.4	10.0
12	01	01	1	22	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	33.	10.0	285.4	10.0
12	01	01	1	23	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	50.	10.0	284.2	10.0
12	01	01	1	24	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	42.	10.0	283.1	10.0

```
 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1   51.    0.44   282.6   30.0  -99.00    0.20

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



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     3GVZ8007    ,

                                                  *** SENSITIVE DISCRETE RECEPTOR POINTS ***

                                             ** CONC OF PM10     IN MICROGRAMS/M**3                          **

      X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
        468459.00    3677688.20       0.00597                        468455.40    3677573.40       0.00897

        468451.90    3677457.30       0.00934                        468482.50    3677377.60       0.00751

        468387.70    3677318.50       0.00435
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                 *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                  ** CONC OF PM10     IN MICROGRAMS/M**3                          **


NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -

ALL       1ST HIGHEST VALUE IS       0.00934 AT (  468451.90,  3677457.30,     0.00,     0.00,    0.00)  SR

          2ND HIGHEST VALUE IS       0.00897 AT (  468455.40,  3677573.40,     0.00,     0.00,    0.00)  SR

          3RD HIGHEST VALUE IS       0.00751 AT (  468482.50,  3677377.60,     0.00,     0.00,    0.00)  SR

          4TH HIGHEST VALUE IS       0.00597 AT (  468459.00,  3677688.20,     0.00,     0.00,    0.00)  SR

          5TH HIGHEST VALUE IS       0.00435 AT (  468387.70,  3677318.50,     0.00,     0.00,    0.00)  SR

          6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
```

 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

 *** Message Summary : AERMOD Model Execution ***

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

 A Total of   0 Fatal Error Message(s)
 A Total of   2 Warning Message(s)
 A Total of   378 Informational Message(s)

 A Total of   8784 Hours Were Processed

 A Total of   250 Calm Hours Identified

 A Total of   128 Missing Hours Identified (1.46 Percent)

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

    ********   WARNING MESSAGES   ********
 ME W186   61   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.40
 MX W403   61   PFLCNV: Turbulence data is being used w/o ADJ_U* option   SigA Data

    ****
    *** AERMOD Finishes Successfully ***
    ****

ATTACHMENT C

Health Risk Calculations

Air Quality Health Risk Calculations (Worst-Case)
Cypress Point Residential Tier 4 with DPF

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.00096**
	Construction Start	**1/1/2023**
	Construction Complete	**2/13/2024**
	Days	**408**
	Construction Emission per day (lb/day)	**0.004705882**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**2.46732E-05**
	Project Site Size (Acres)	**7.3**
	Project Site Size (meters^2)	**29542.05188**
	Length of Smalles Side (meters)	**171.8780145**
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)	**8.35E-10**
From AERMOD	Concentration Annual (Ug/M^3)	**0.00931**

	Days	Days to years				
Duration	408	1.117808219				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.00931	0.00931	0.00931	0.00931	0.00931	0.00931
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000323	0.00000974	0.00000770	0.00000666	0.00000299	0.00000259
Construction Days	408	1.117808219				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.117808219	1.117808219	1.117808219	1.117808219	1.117808219
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	1.07741E-07	1.45455E-06	2.91971E-07	2.52635E-07	3.83929E-08	3.32356E-08
Risk per million Exposed	0.107741172	1.45454875	0.291971029	0.25263463	0.038392865	0.033235615

Cancer Risk Per Million 9-years	1.85
Cancer Risk Per Million 30-years	1.85
Cancer Risk Per Million 70-years	**1.85**

ATTACHMENT D

EMFAC 2014 VMT per Trip Calculations

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips
San Diego	2025	HHDT	Aggregatec	Aggregatec	GAS	161.1216	21202.38	3223.722
San Diego	2025	HHDT	Aggregatec	Aggregatec	DSL	15341.85	2103842	0
San Diego	2025	LDA	Aggregatec	Aggregatec	GAS	1430879	47587917	9062515
San Diego	2025	LDA	Aggregatec	Aggregatec	DSL	18230.06	610522.6	114299.8
San Diego	2025	LDA	Aggregatec	Aggregatec	ELEC	102949.9	4362999	668758.3
San Diego	2025	LDT1	Aggregatec	Aggregatec	GAS	110056.6	3351788	665740.4
San Diego	2025	LDT1	Aggregatec	Aggregatec	DSL	135.5653	2803.107	658.3286
San Diego	2025	LDT1	Aggregatec	Aggregatec	ELEC	41.86047	1338.282	253.6785
San Diego	2025	LDT2	Aggregatec	Aggregatec	GAS	445728.9	15377109	2820576
San Diego	2025	LDT2	Aggregatec	Aggregatec	DSL	944.5915	33384.94	6012.223
San Diego	2025	LHDT1	Aggregatec	Aggregatec	GAS	17137.47	468069.8	255322.8
San Diego	2025	LHDT1	Aggregatec	Aggregatec	DSL	23103.06	724642.4	290607.5
San Diego	2025	LHDT2	Aggregatec	Aggregatec	GAS	4048.832	139572.1	60321.57
San Diego	2025	LHDT2	Aggregatec	Aggregatec	DSL	8965.437	322602.6	112773.9
San Diego	2025	MCY	Aggregatec	Aggregatec	GAS	70674.4	501031.3	141334.7
San Diego	2025	MDV	Aggregatec	Aggregatec	GAS	267677.5	8534403	1665094
San Diego	2025	MDV	Aggregatec	Aggregatec	DSL	5742.887	206955.9	36633.48
San Diego	2025	MH	Aggregatec	Aggregatec	GAS	8633.504	64191.89	863.6957
San Diego	2025	MH	Aggregatec	Aggregatec	DSL	2309.531	17748.26	230.9531
San Diego	2025	MHDT	Aggregatec	Aggregatec	GAS	3092.563	161145.6	61876
San Diego	2025	MHDT	Aggregatec	Aggregatec	DSL	25605.17	1301919	0
San Diego	2025	OBUS	Aggregatec	Aggregatec	GAS	1716.977	92464.34	34353.27
San Diego	2025	OBUS	Aggregatec	Aggregatec	DSL	935.031	73876.47	0
San Diego	2025	SBUS	Aggregatec	Aggregatec	GAS	438.5087	19991.26	1754.035
San Diego	2025	SBUS	Aggregatec	Aggregatec	DSL	1213.17	45957.63	0
San Diego	2025	UBUS	Aggregatec	Aggregatec	GAS	472.4052	63912.55	1889.621
San Diego	2025	UBUS	Aggregatec	Aggregatec	DSL	690.1969	93377.98	2760.788
							Total VMT	Total Trips
							86284768	16007854
						VMT/Trip	5.390152	