

# APPENDIX K

## *Air Quality Report*



# Air Quality Analysis Technical Report for the Palomar Heights Project Escondido, California

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# Acronyms and Abbreviations

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| Acronym/Abbreviation | Definition  |
|----------------------|---|
| CAAQS                | California Ambient Air Quality Standards  |
| CalEEMod             | California Emissions Estimator Model  |
| Caltrans             | California Department of Transportation   |
| CARB                 | California Air Resources Board  |
| CEQA                 | California Environmental Quality Act  |
| City                 | City Escondido  |
| CO                   | carbon monoxide   |
| County               | County of San Diego   |
| DPM                  | diesel particulate matter   |
| EPA                  | U.S. Environmental Protection Agency  |
| g/L                  | grams per liter   |
| LOS                  | level of service  |
| NAAQS                | National Ambient Air Quality Standards  |
| NO <sub>2</sub>      | nitrogen dioxide  |
| NO <sub>x</sub>      | oxides of nitrogen  |
| O <sub>3</sub>       | ozone   |
| PM <sub>2.5</sub>    | particulate matter with an aerodynamic diameter less than or equal to 2.5 microns |
| PM <sub>10</sub>     | particulate matter with an aerodynamic diameter less than or equal to 10 microns  |
| ppb                  | parts per billion   |
| ppm                  | parts per million   |
| Project              | Palomar Heights Project   |
| RAQS                 | Regional Air Quality Strategy   |
| RTIP                 | Regional Transportation Improvement Program                                       |
| SANDAG               | San Diego Association of Governments  |
| SDAB                 | San Diego Air Basin   |
| SDAPCD               | San Diego Air Pollution Control District  |
| SIP                  | State Implementation Plan   |
| SO <sub>2</sub>      | sulfur dioxide  |
| SO <sub>x</sub>      | sulfur oxides   |
| TAC                  | toxic air contaminant   |
| VMT                  | vehicle miles traveled  |
| VOC                  | volatile organic compound   |

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# Executive Summary

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The purpose of this Air Quality Analysis Technical Report is to assess the potential air quality impacts associated with implementation of the proposed Palomar Heights Project (Project). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act Guidelines (14 CCR 15000 et seq.).

## Project Overview

The proposed Project would consist of redevelopment of an existing hospital into a mixed-use residential and commercial development. The residential component would include 510 multi-family units, including senior apartments, apartments, villas, and rowhomes. The Project would also include 10,000 square feet of commercial space consisting of a café, workspace, and retail space. The Project would also include supporting recreational amenities and infrastructure improvements. The site is approximately 13.8 acres.

## Impact Analysis Summary

The air quality analysis evaluated the potential for adverse impacts to air quality due to construction and operational emissions resulting from the Project. Impacts were evaluated for their significance based on the mass daily criteria air pollutant thresholds of significance from the San Diego Air Pollution Control District (SDAPCD). Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria for outdoor concentrations to protect public health. Criteria air pollutants include ozone ( $O_3$ ), nitrogen dioxide ( $NO_2$ ), carbon monoxide (CO), sulfur dioxide ( $SO_2$ ), particulate matter with an aerodynamic diameter less than or equal to 10 microns ( $PM_{10}$ ), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ( $PM_{2.5}$ ), and lead. Pollutants evaluated include volatile organic compounds (VOCs) (also referred to as reactive organic gases), oxides of nitrogen ( $NO_x$ ), CO, sulfur oxides ( $SO_x$ ),  $PM_{10}$ , and  $PM_{2.5}$ . VOCs and  $NO_x$  are important because they are precursors to  $O_3$ . Proposed Project construction and operational emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 (CAPCOA 2017).<sup>1</sup>

## Air Quality Plan Consistency

If a project proposes development that is greater than that anticipated in a local plan and/or growth projections, that project might be in conflict with the State Implementation Plan and/or Regional Air Quality Strategy (RAQS), and may contribute to a potentially significant cumulative impact on air quality. The proposed Project was deemed to be consistent with the 2016 RAQS, which is the current air quality plan, because the most recent forecasts from the San Diego Association of Governments anticipates growth for the Project area of 7,678 new residents over a period of 15 years (2020 to 2035) (SDAPCD 2016a). The addition of 510 residential units resulting in approximately 1,571 new residents to Escondido as a result of the proposed Project would be accommodated in the population forecast used to prepare the 2016 RAQS and therefore would not exceed the assumptions used in the 2016 RAQS emissions assumptions and impacts would be less than significant.

## Construction Criteria Air Pollutant Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e.,

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<sup>1</sup> CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform to calculate construction and operational emissions from land use development projects.

on-road haul trucks, vendor trucks, and worker vehicle trips). The Project's construction emissions were estimated using CalEEMod Version 2016.3.2. Maximum daily construction emissions of VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed the SDAPCD's significance thresholds. Therefore, the proposed Project would have a less than significant impact during construction.

#### ***Operational Criteria Air Pollutant Emissions***

The proposed Project would generate criteria pollutant emissions during operation from area, energy, and mobile sources. The emissions were estimated using CalEEMod and were compared to the SDAPCD's significance thresholds for operation. The proposed Project would not exceed the mass emissions significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> during operation. Therefore, the proposed Project would have a less than significant impact during operation.

#### ***Cumulative Impacts***

The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above, the proposed Project would not exceed the SDAPCD's mass daily significance thresholds during construction or operation; therefore, the proposed Project would have a less than significant cumulative impact.

#### ***Exposure of Sensitive Receptors***

Construction and operational activities would not generate emissions in excess of the SDAPCD's mass daily thresholds; therefore, construction and operational impacts of the Project would be less than significant. In addition, diesel equipment would also be subject to the California Air Resources Board's Airborne Toxic Control Measures for in-use off-road diesel fleets, which would minimize diesel particulate matter emissions. The proposed Project would not include stationary sources that would emit air pollutants or toxic air contaminant emissions during operation, and the Project would not require extensive use of off-road equipment or diesel vehicles. The proposed Project would not expose sensitive receptors to Valley Fever, and would comply with SDAPCD Rule 55 to help reduce impacts during grading and earthmoving activities. The proposed Project would not negatively affect the level of service of intersections on the Project site, and would not significantly contribute to a CO hotspot. As such, potential Project-generated impacts associated with CO hotspots would be less than significant.

#### ***Other Emissions***

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and from excavated sediment. These odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant. The Project is a mixed-use development that would not include land uses with sources that have the potential to generate substantial odors, and impacts associated with odors during operation would be less than significant.

# 1 Introduction

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## 1.1 Report Purpose and Scope

The purpose of this Air Quality Analysis Technical Report is to evaluate the potential air quality impacts associated with construction and operation of the proposed Palomar Heights Project (Project) located in the City of Escondido (City), California, within San Diego County. This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), and is based on the emissions-based significance thresholds recommended by the City.

This introductory section provides a description of the proposed Project. Section 2, Existing Conditions, presents the relevant existing setting in the context of air quality, climate, and meteorology, in addition to presenting the federal, state, and local regulatory background associated with the proposed Project. Section 3, Significance Criteria and Analysis Methodologies, outlines the thresholds of significance applied in the analysis, and methodology and assumptions used in the construction and operational emissions analysis. Section 4, Project Impact Analysis, evaluates the proposed Project's potential to result in a significance air quality impact per the thresholds identified in Section 3. Section 5, References, includes a list of the references cited, and Section 6, List of Preparers, includes a list of those who prepared this technical report.

## 1.2 Regional and Local Setting

The Project site is located on the eastern edge of the downtown area in the City of Escondido, and is situated 1.5 miles east of Interstate 15. The Project site consists of approximately 13.8 acres. Figure 1, Project Location, shows the Project's location within San Diego County and Escondido. Regionally, the City is situated within the northeastern portion of San Diego County, approximately 29 miles north of downtown San Diego via Interstate 15.

The Project site is located within the San Diego Air Basin (SDAB) and is within the jurisdictional boundaries of the San Diego Air Pollution Control District (SDAPCD). The SDAB and the SDAPCD are discussed further in Chapter 2, Environmental Setting, and Chapter 3, Regulatory Setting, respectively.

## 1.3 Project Description

The Project site is located within the northeastern portion of the City of Escondido, California (Figure 1), and is situated south of E. Valley Parkway, north of E. Grand Avenue, and on both sides of Valley Boulevard. Existing land uses surrounding the site include commercial and residential uses. The site is currently developed with Palomar Health Downtown Campus. Integral Communities is proposing to redevelop the 13.8-acre site with 510 multi-family residential dwelling units and up to 10,000 square feet of commercial space. The residential component would include 510 multi-family units, including senior apartments, apartments, villas, and rowhomes (Figure 2, Project Site Plan). The commercial component would include uses such as a café, workspace, and retail space. In addition, the Project would include supporting open space and recreational amenities, landscaping, parking, and infrastructure improvements. The recreational uses would include a gym, pool, a clubhouse, and parks. The infrastructure improvements would include utility connections to lines within the adjacent roadways and roadway frontage improvements.

## Residential

The residential uses would be composed of four multi-family residential unit types: senior apartments, apartments, villas, and row homes. The Project would have a residential density of 37 units per acre. Below is a description of each housing type proposed:

- **Senior apartments** would be situated on the western portion of the Project site, west of Valley Boulevard. The senior units would be within one four-level building that would include parking on the ground floor and residential units on the second to fourth floors. One residential unit would be located on the ground floor. A total of 90 senior units would be provided, and would include a mix of one- and two-bedroom units. The senior apartment building would also include commercial uses, as described below.
- **Apartments** are proposed east of Valley Boulevard within the Project site. A total of 258 apartments would be provided within three buildings. The proposed buildings would be five levels, with four floors and a mezzanine. Apartments would include one-, two-, and three-bedroom units. The buildings associated with the apartments would also include commercial uses, as described below.
- **Villas** would be located east of the apartments within the central area of the Project site. A total of 90 villas would be provided within nine buildings, consisting of two- and three-bedroom units. Villas would include garages on the first floor.
- **Rowhomes** would be located in the southeastern area of the Project site, immediately north of Grande Avenue and west of Fig Street. Rowhomes would provide 72 dwelling units within 11, three-story buildings. Rowhomes would be two- and three-bedroom units.

## Recreation

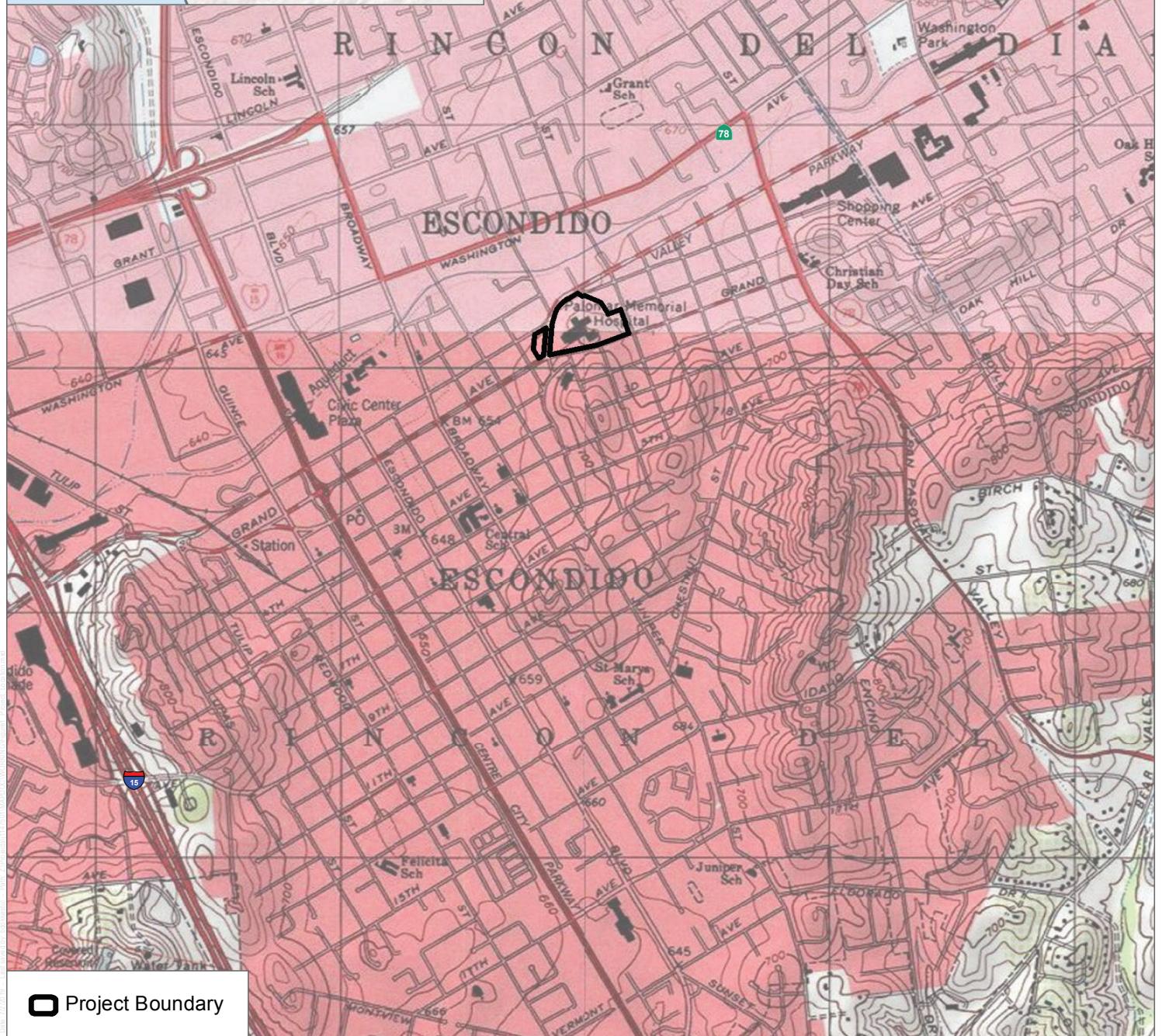
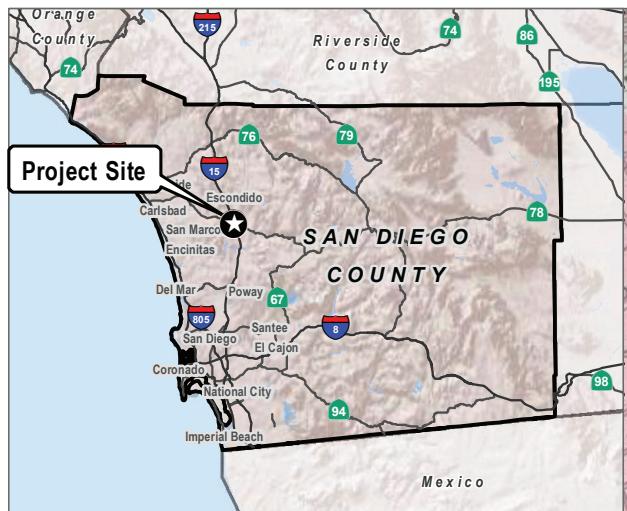
The Project includes recreational and open space amenities to support the proposed residential. The usable recreational and open space amenities include a centrally located pool/spa and community pavilion/clubhouse building, a 2,000 square-foot gym within the main apartment building, a dog park located in the northeastern portion of the Project site and a pocket park near the southeastern corner of the Project site

## Commercial

The proposed 10,000 square feet of commercial space would be focused at the intersection of E. Grand Avenue/Valley Boulevard/Second Avenue. Commercial space is proposed within the southern area of the senior apartment building, and on the southern side of the apartment building proposed adjacent to this intersection. The commercial space within the senior apartment building is anticipated to include a café. The apartment building would include collaborative work space, bar/restaurant, café, and leasing space. See Figure 2, Project Site Plan.

## Construction

Construction of the proposed Project is expected to commence in mid-2020 and occur over a 6-year period, with buildout expected mid-2026. Demolition of the existing on-site hospital would last for 6 months. Site preparation and grading would occur thereafter, and would require approximately 10 months. Site paving would last for approximately 3 month following grading, which would include the paving of roadways and other asphalt surfaces. Development of site infrastructure and building construction, including residential uses and the associated commercial uses, would occur over 4 years, beginning in mid-2022. For purposes of modeling, it was assumed that architectural coatings would be applied late in the building construction phase in early 2026, and would last approximately 6 months..



SOURCE: USGS 7.5-Minute Series Valley Center and Escondido Quadrangles

**DUDEK**

0 1,000 2,000 Feet

**FIGURE 1**

**Project Location**  
Palomar Heights Project

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SOURCE: Summa, 2019

**DUDEK**

**FIGURE 2**  
Project Site Plan  
Palomar Heights

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## 2 Existing Conditions

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### 2.1 Existing Setting

The Project site is located within the SDAB and is subject to SDAPCD guidelines and regulations. The SDAB is one of 15 air basins that geographically divide California. The SDAB lies in the southwest corner of California, and comprises the entire San Diego region and covers approximately 4,260 square miles.

### 2.2 Climate and Meteorology

The primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted. Meteorological and topographical conditions, however, are also important. Factors such as wind speed and direction, air temperature gradients and sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersal of air pollutants. Meteorological and topographical factors that affect air quality in the SDAB are described below.<sup>2</sup>

#### Regional Climate and Meteorological Conditions

The climate of the San Diego region, as in most of Southern California, is influenced by the strength and position of the semi-permanent high-pressure system over the Pacific Ocean, known as the Pacific High. This high-pressure ridge over the west coast often creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, daytime onshore breezes, and little temperature variation year-round. The SDAB is characterized as a Mediterranean climate with dry, warm summers and mild, occasionally wet winters. Average temperature ranges (in degrees Fahrenheit ( $^{\circ}$ F)) from the mid-40s to the high 90s, with an average of 201 days warmer than  $70^{\circ}$ F. The SDAB experiences 9 to 13 inches of rainfall annually, with most of the region's precipitation falling from November through March, with infrequent (approximately 10%) precipitation during the summer. El Niño and La Niña patterns affect the annual rainfall received in San Diego, where San Diego receives less than normal rainfall during La Niña years.

The interaction of ocean, land, and the Pacific High maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). The winds tend to blow onshore in the day and offshore at night. Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

The favorable climate of San Diego also works to create air pollution problems. Sinking, or subsiding, air from the Pacific High creates a temperature inversion known as a subsidence inversion, which acts as a "lid" to vertical dispersion of pollutants. Weak summertime pressure gradients further limit horizontal dispersion of pollutants in the mixed layer below the subsidence inversion. Poorly dispersed anthropogenic emissions combined with strong sunshine leads to photochemical reactions that result in the creation of ozone ( $O_3$ ) at this surface layer. In addition, light winds during the summer further limit ventilation.

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<sup>2</sup> The discussion of meteorological and topographical conditions of the SDAB is based on information provided in the SDAPCD 2016 Monitoring Plan (SDAPCD 2017a), the County of San Diego Guidelines for Determining Significance – Air Quality (County of San Diego 2007), the County of San Diego General Plan Update EIR (County of San Diego 2011), and the CARB Recommended Area Designation for the 2010 Federal Sulfur Dioxide Standard (CARB 2011).

In the fall months, the SDAB is often impacted by Santa Ana winds, which are the result of a high-pressure system over the Nevada and Utah regions that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. The Santa Ana winds are powerful and can blow the SDAB's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase O<sub>3</sub> concentrations in the San Diego area.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County. This often produces high O<sub>3</sub> concentrations, as measured at air pollutant monitoring stations within San Diego County. The transport of air pollutants from Los Angeles to San Diego can also occur within the stable layer of the elevated subsidence inversion, where high levels of O<sub>3</sub> are transported.

#### **Site-Specific Meteorological Conditions**

The local climate within the Project area is characterized as semi-arid, with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 86.1°F, with highs reaching 88.6°F, on average, June through September. The average wintertime low temperature is approximately 44.6°F, reaching as low as 41.8°F, on average, November through March. Average precipitation in the local area is approximately 14.93 inches per year, with the bulk of precipitation falling November through March (WRCC 2013).

## 2.3 Regulatory Setting

### 2.3.1 Federal

#### **Criteria Air Pollutants**

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O<sub>3</sub> protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O<sub>3</sub>, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan (SIP) that demonstrates how those areas will attain the standards within mandated timeframes.

## Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard based on scientific studies of exposure to humans and other mammals. Under the 1990 Clean Air Act amendments, which expanded the control program for hazardous air pollutants, 187 substances and chemical families were identified as hazardous air pollutants.

## 2.3.2 State

### Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to the California Air Resources Board (CARB), with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 1, Ambient Air Quality Standards.

**Table 1. Ambient Air Quality Standards**

| Pollutant                     | Averaging Time         | California Standards <sup>a</sup>  | National Standards <sup>b</sup>                 |                                       |
|-------------------------------|------------------------|------------------------------------|---|---------------------------------------|
|                               |                        | Concentration <sup>c</sup>         | Primary <sup>c,d</sup>                          | Secondary <sup>c,e</sup>              |
| O <sub>3</sub>                | 1 hour                 | 0.09 ppm (180 µg/m <sup>3</sup> )  | —   | Same as Primary Standard <sup>f</sup> |
|                               | 8 hours                | 0.070 ppm (137 µg/m <sup>3</sup> ) | 0.070 ppm (137 µg/m <sup>3</sup> ) <sup>f</sup> |                                       |
| NO <sub>2</sub> <sup>g</sup>  | 1 hour                 | 0.18 ppm (339 µg/m <sup>3</sup> )  | 0.100 ppm (188 µg/m <sup>3</sup> )              | Same as Primary Standard              |
|                               | Annual Arithmetic Mean | 0.030 ppm (57 µg/m <sup>3</sup> )  | 0.053 ppm (100 µg/m <sup>3</sup> )              |                                       |
| CO                            | 1 hour                 | 20 ppm (23 mg/m <sup>3</sup> )     | 35 ppm (40 mg/m <sup>3</sup> )                  | None                                  |
|                               | 8 hours                | 9.0 ppm (10 mg/m <sup>3</sup> )    | 9 ppm (10 mg/m <sup>3</sup> )                   |                                       |
| SO <sub>2</sub> <sup>h</sup>  | 1 hour                 | 0.25 ppm (655 µg/m <sup>3</sup> )  | 0.075 ppm (196 µg/m <sup>3</sup> )              | —                                     |
|                               | 3 hours                | —                                  | —   | 0.5 ppm (1,300 µg/m <sup>3</sup> )    |
|                               | 24 hours               | 0.04 ppm (105 µg/m <sup>3</sup> )  | 0.14 ppm (for certain areas) <sup>g</sup>       | —                                     |
|                               | Annual                 | —                                  | 0.030 ppm (for certain areas) <sup>g</sup>      | —                                     |
| PM <sub>10</sub> <sup>i</sup> | 24 hours               | 50 µg/m <sup>3</sup>               | 150 µg/m <sup>3</sup>                           | Same as Primary Standard              |
|                               | Annual Arithmetic Mean | 20 µg/m <sup>3</sup>               | —   |                                       |

**Table 1. Ambient Air Quality Standards**

| Pollutant                      | Averaging Time                       | California Standards <sup>a</sup>   | National Standards <sup>b</sup>                        |                          |
|--------------------------------|--------------------------------------|---|--|--------------------------|
|                                |                                      | Concentration <sup>c</sup>  | Primary <sup>c,d</sup>                                 | Secondary <sup>c,e</sup> |
| PM <sub>2.5</sub> <sup>i</sup> | 24 hours                             | —   | 35 µg/m <sup>3</sup>                                   | Same as Primary Standard |
|                                | Annual Arithmetic Mean               | 12 µg/m <sup>3</sup>  | 12.0 µg/m <sup>3</sup>                                 | 15.0 µg/m <sup>3</sup>   |
| Lead <sup>j,k</sup>            | 30-day Average                       | 1.5 µg/m <sup>3</sup>   | —  | —                        |
|                                | Calendar Quarter                     | —   | 1.5 µg/m <sup>3</sup> (for certain areas) <sup>k</sup> | Same as Primary Standard |
|                                | Rolling 3-Month Average              | —   | 0.15 µg/m <sup>3</sup>                                 |                          |
| Hydrogen sulfide               | 1 hour                               | 0.03 ppm (42 µg/m <sup>3</sup> )  | —  | —                        |
| Vinyl chloride <sup>j</sup>    | 24 hours                             | 0.01 ppm (26 µg/m <sup>3</sup> )  | —  | —                        |
| Sulfates                       | 24-hours                             | 25 µg/m <sup>3</sup>  | —  | —                        |
| Visibility reducing particles  | 8 hour (10:00 a.m. to 6:00 p.m. PST) | Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70% | —  | —                        |

**Source:** CARB 2016a.

**Notes:** µg/m<sup>3</sup> = micrograms per cubic meter; CO = carbon monoxide; mg/m<sup>3</sup>= milligrams per cubic meter; NO<sub>2</sub> = nitrogen dioxide; O<sub>3</sub> = ozone; PM<sub>10</sub> = particulate matter with an aerodynamic diameter less than or equal to 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; ppm = parts per million by volume; SO<sub>2</sub> = sulfur dioxide

<sup>a</sup> California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>b</sup> National standards (other than O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O<sub>3</sub> standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than 1. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

<sup>c</sup> Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on 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.

<sup>d</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>e</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>f</sup> On October 1, 2015, the EPA Administrator signed the notice for the final rule to revise the primary and secondary NAAQS for O<sub>3</sub>. The EPA is revising the levels of both standards from 0.075 ppm to 0.070 ppm and retaining their indicators (O<sub>3</sub>), forms (fourth-highest daily maximum, averaged across 3 consecutive years) and averaging times (8 hours). The EPA is in the process of submitting the rule for publication in the Federal Register. The final rule will be effective 60 days after the date of publication in the Federal Register. The lowered national 8-hour standards are reflected in the table.

<sup>g</sup> To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of 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.

- h On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour 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 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- i On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.
- j CARB 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.
- k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until 1 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.

## Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under Assembly Bill 1807 (Tanner). The California toxic air contaminant (TAC) list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with Assembly Bill 2728, the state list includes the (federal) hazardous air pollutants. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Assembly Bill 2588) seeks to identify and evaluate risk from air toxics sources; however, Assembly Bill 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from new and existing diesel-fueled vehicles and engines. The regulation is anticipated to result in an 80% decrease in statewide diesel health risk by 2020 compared with the diesel risk in 2000 (CARB 2000). Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Airborne toxic control measures that reduce diesel emissions include In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

## California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. Section 41700 also applies to sources of objectionable odors.

## 2.3.3 Local

### **San Diego Air Pollution Control District**

Although CARB is responsible for the regulation of mobile emissions sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The Project site is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

### **Federal Attainment Plans**

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O<sub>3</sub> NAAQS). The 2016 Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O<sub>3</sub> standard (1997 O<sub>3</sub> NAAQS) by 2018 (SDAPCD 2016a). In this plan, the SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O<sub>3</sub> standard. The RAQS details how the region will manage and reduce O<sub>3</sub> precursors (oxides of nitrogen [NOx] and volatile organic compounds [VOCs]) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

As documented in the 2016 8-Hour Ozone Attainment Plan for San Diego County, San Diego County has a likely chance of obtaining attainment due to the transition to low-emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County of San Diego (County) will also continue emissions control measures, including ongoing implementation of existing regulations in O<sub>3</sub> precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring best available retrofit control technology for control of emissions (SDAPCD 2016a).

### **State Attainment Plans**

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1991 and is updated on a triennial basis, most recently in 2016 (SDAPCD 2016a). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in San Diego County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emissions projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of development of their general plans (SANDAG 2017a, 2017b).

In December 2016, the SDAPCD adopted the revised RAQS for the County. Since 2007, the San Diego region has reduced daily VOC emissions and NOx emissions by 3.9% and 7.0%, respectively; the SDAPCD expects to continue reductions through 2035 (SDAPCD 2016a). These reductions were achieved through implementation of six VOC control measures and three NO<sub>x</sub> control measures adopted in the SDAPCD's 2009 RAQS (SDAPCD 2009a). In addition, the SDAPCD is considering additional measures, including three VOC measures and four control measures

to reduce 0.3 daily tons of VOC and 1.2 daily tons of NO<sub>x</sub>, provided they are found to be feasible region-wide. The SDAPCD has implemented nine incentive-based programs, has worked with SANDAG to implement regional transportation control measures, and has reaffirmed the state's emissions offset repeal.

For particulate matter emissions, in December 2005, the SDAPCD prepared a report (Measures to Reduce Particulate Matter in San Diego County) to address implementation of Senate Bill 656 in San Diego County (Senate Bill 656 required additional controls to reduce ambient concentrations of PM<sub>10</sub> and PM<sub>2.5</sub>) (SDAPCD 2005). In the report, the SDAPCD evaluated implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities, including earthmoving, demolition, and grading; bulk material storage and handling; carryout and trackout removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

### **SDAPCD Rules and Regulations**

The SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in SDAPCD's jurisdiction, and would apply to the proposed Project:

**SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

Construction of the proposed Project may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. Although visible emissions are less likely to occur during operation of the Project, compliance with SDAPCD Rule 50 would be required during both construction and operation.

**SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976).

Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of the Project would be subject to SDAPCD Rule 51. Violations can be reported to the SDAPCD in the form of an air quality complaint by telephone, email, or online form. Complaints are investigated by the SDAPCD as soon as possible.

**SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009b).

Construction of the Project, primarily during earth-disturbing activities, may result in fugitive dust emissions that would be subject to SDAPCD Rule 55. Fugitive dust emissions are not anticipated during operation of the Project.

**SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015a). Construction

and operation of the Project would include application of architectural coatings (e.g., paint and other finishes) that are subject to SDAPCD Rule 67.0.1. Architectural coatings used in the reapplication of coatings during operation of the Project would be subject to the VOC content limits identified in SDAPCD Rule 67.0.1, which applies to coatings manufactured, sold, or distributed within San Diego County.

**SDAPCD Regulation XII: Toxic Air Contaminates; Rule 1200: Toxic Air Contaminants – New Source Review.** Requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to either demonstrate that they will not increase the maximum incremental cancer risk above 1 in 1 million at every receptor location, or demonstrate that toxics best available control technology will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million, or demonstrate compliance with SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million (SDAPCD 2017b).

The Project does not propose specific stationary sources that would generate TACs that are not commonly associated with residential development projects. If stationary sources with the potential to emit TACs were to be included as part of the proposed Project, or at a later date, those sources would be subject to SDAPCD Rule 1200, and would be subject to New Source Review requirements.

**SDACPD Regulation XII: Toxic Air Contaminates; 1206: Asbestos Removal, Renovation, and Demolition.** Requires that structures that are to be demolished or renovated go through asbestos testing, and if asbestos is found, requires proper handling, removal, and disposal. Demolition activities during Project construction would be subject to the survey and notification requirements and procedures for asbestos removal and disposal outlined in SDAPCD Rule 1206.

**SDAPCD Regulation XII: Toxic Air Contaminates; Rule 1210: Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction.** Requires each stationary source that is required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, or cancer burden equal to or greater than 1.0, or total acute noncancer health hazard index equal to or greater than 1.0, or total chronic noncancer health hazard index equal to or greater than 1.0 (SDAPCD 2017c).

The Project does not propose specific stationary sources that would generate TACs. If stationary sources with the potential to emit TACs were to be included as part of the proposed Project, or at a later date, those sources would be subject to SDAPCD Rule 1210, and would be subject to Public Notification and Risk Reduction requirements. The thresholds identified in Rule 1210 are used in this analysis as thresholds for the health risk assessment, which are consistent with the SDAPCD health risk assessment guidelines (SDAPCD 2015b).

#### **San Diego Association of Governments**

SANDAG is the regional planning agency for San Diego County, and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for San Diego County. With respect to air quality planning and other regional issues, SANDAG has prepared San Diego Forward: The Regional Plan (Regional Plan) for the San Diego region (SANDAG 2015). The Regional Plan combines the big-picture vision for how the region will grow over the next 35 years with an implementation program to help make that vision a reality. The Regional Plan, including its Sustainable Communities Strategy, is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050.

For air quality, the Regional Plan sets the policy context for how SANDAG participates in and responds to the SDAPCD's air quality plans, and builds off the SDAPCD's air quality plan processes that are designed to meet health-based criteria pollutant standards (SANDAG 2015). The Regional Plan complements air quality plans by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in air quality plans. The Regional Plan also emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

On September 23, 2016, SANDAG's Board of Directors adopted the final 2016 Regional Transportation Improvement Program (RTIP). The 2016 RTIP is a multi-billion dollar, multi-year program for major transportation projects in the San Diego region. Transportation projects supported through federal, state, and TransNet (the San Diego transportation sales tax program) funds must be included in an approved RTIP. Locally funded projects also may be programmed at the discretion of SANDGA. The 2016 RTIP covers 5 fiscal years and incrementally implements the Regional Plan (SANDAG 2016).

### **City of Escondido**

The City's General Plan includes various goals and policies designed to help improve air quality within the City. As discussed in the General Plan, policies pertaining to improving air quality are addressed in multiple chapters of the General Plan.

The goals and policies for improving air quality in the General Plan related to land use are as follows (City of Escondido 2012a):

#### ***Land Use and Community Form***

##### **1. Community Character**

**Goal 1:** A community composed of distinct residential neighborhoods, business districts, and employment centers, whose urban form reflects the natural environmental setting. (Page II – 122)

**Community Character Policy 1.9:** Promote development in downtown, at transit stations, and other key districts to accommodate a mix of land uses and configure uses to promote walkability, bicycling, and transit uses, reducing the need for the automobile. (Page II – 102)

##### **4. Neighborhood Maintenance & Preservation**

**Neighborhood Maintenance & Preservation Policy 4.3:** Integrate pedestrian-friendly features, promote walkability, and work with residents to enhance existing neighborhood character and aesthetics. (Page II – 108)

##### **7. Mixed Use Overlay Zones**

**Goal 7:** Districts containing a mix of uses enabling residents to live close to their jobs, shopping, entertainment, and recreation, reducing the need to use the automobile and promoting walking and healthy lifestyles. (Page II – 112)

**Mixed Use Overlay Policy 7.1:** Designate areas for the development of mixed-use projects in a pedestrian-friendly environment integrating housing with retail, office, and service uses (childcare, health, etc.) consistent with the General Plan's vision and long-term growth needs. (Page II – 112)

The goals and policies for improving air quality in the General Plan related to mobility and infrastructure are as follows (City of Escondido 2012b):

#### ***Mobility and Infrastructure***

##### **1. Regional Transportation Planning**

**Goal 1:** An accessible, safe, convenient, and integrated multi-modal network that connects all users and moves goods and people within the community and region efficiently. (Page III – 32)

##### **3. Pedestrian Network**

**Pedestrian Network Policy 3.2:** Develop and manage pedestrian facilities to maintain an acceptable Level of Service as defined in the Pedestrian Master Plan. (Page III – 34)

**Pedestrian Network Policy 3.3:** Maintain a pedestrian environment that is accessible to all and that is safe, attractive, and encourages walking. (Page III – 34)

##### **4. Bicycle Network**

**Bicycle Network Policy 4.2:** Develop and manage bicycle facilities to maintain an acceptable Level of Service as defined in the Bicycle Master Plan. (Page III – 35)

**Bicycle Network Policy 4.3:** Promote bicycling as a common mode of transportation and recreation to help reduce traffic congestion and improve public health. (Page III – 35)

The goal and policy for improving air quality in the General Plan related to resource conservation are as follows (City of Escondido 2012c):

#### ***Resource Conservation***

##### **7. Air Quality and Climate Protection**

**Goal 7:** Improved air quality in the city and the region to maintain the community's health and reduce greenhouse gas emissions that contribute to climate change. (Page VII – 29)

**Air Quality and Climate Protection Policy 7.3:** Require that new development projects incorporate feasible measures that reduce construction and operational emissions. (Page VII – 30)

#### **Climate Action Plan**

The City adopted the Escondido Climate Action Plan in December 2013 (City of Escondido 2013). Although the Escondido Climate Action Plan directly quantifies greenhouse gas emissions and identifies policies to reduce greenhouse gas emissions, associated air quality co-benefits would accrue with implementation of many of the

policies designed to reduce greenhouse gas emissions. The following Escondido Climate Action Plan emission reduction measures are anticipated to achieve air quality co-benefits:

- R2-T1:** Land Use Based Trips and VMT Reduction Policies (City of Escondido 2013, page 4-9): This measure would focus land development projects around smart growth, complete streets, mixed-use projects, and transit oriented development to reduce VMT [vehicle miles traveled].
- R2-T2:** Bicycle Master Plan (City of Escondido 2013, page 4-12): This measure would improve the bicycle network and facilities and reduce VMT.
- R2-T3:** Transit Improvements (City of Escondido 2013, page 4-13): This measure would expand the public transportation system and reduce VMT.
- R2-T4:** Transportation Demand Management (City of Escondido 2013, page 4-14): This measure would encourage ride-sharing, carpooling, and alternative modes of transportation, thus reducing VMT.
- R2-E1:** Residential Energy Efficiency Requirements (City of Escondido 2013, page 4-18): This measure would include installation of solar water heaters to replace natural gas water heaters.
- R2-E2:** Commercial Energy Efficiency Requirements (City of Escondido 2013, page 4-19): This measure would include installation of solar water heaters to replace natural gas water heaters.
- R2-E3:** Residential Renewable Energy Requirements (City of Escondido 2013, page 4-20): This measure would include installation of thermal water heaters to replace natural gas water heaters.
- R2-E4:** Commercial Renewable Energy Requirements (City of Escondido 2013, page 4-21): This measure would include installation of thermal water heaters to replace natural gas water heaters.
- R2-E5:** Residential Energy Retrofits (City of Escondido 2013, page 4-22): This measure would include installation of solar water heaters to replace natural gas water heaters.
- R2-E6:** Commercial Energy Retrofits (City of Escondido 2013, page 4-23): This measure would include installation of solar water heaters to replace natural gas water heaters.
- R1-A2:** Electric Landscaping Equipment (City of Escondido 2013, page 4-25): This measure would replace combustion landscaping equipment with electric equipment.
- R2-C1:** Construction Emissions Reductions (City of Escondido 2013, page 4-32): This measure would reduce the amount of time construction equipment is used, replace combustion equipment with electric, and support a reduction in VMT.

## 2.4 Background Air Quality

### 2.4.1 Pollutants and Effects

#### Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive people from illness and discomfort. Pollutants of concern include O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. These pollutants, as well as TACs, are discussed in the following paragraphs.<sup>3</sup> In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** O<sub>3</sub> is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O<sub>3</sub> precursors. These precursors are mainly NO<sub>x</sub> and VOCs. The maximum effects of precursor emissions on O<sub>3</sub> concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O<sub>3</sub> formation, and ideal conditions occur during late spring, summer, and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O<sub>3</sub> exists in the upper atmosphere ozone layer, as well as at the Earth's surface in the troposphere.<sup>4</sup> The O<sub>3</sub> that the EPA and CARB regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O<sub>3</sub> is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O<sub>3</sub>. Stratospheric, or "good," O<sub>3</sub> occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O<sub>3</sub> layer, plant and animal life would be seriously harmed.

O<sub>3</sub> in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors, such as the sick, older adults, and young children.

**Nitrogen Dioxide.** NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO<sub>x</sub> plays a major role, together with VOCs, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> is formed from fuel combustion under high temperature or pressure. In addition, NO<sub>x</sub> is an important precursor to acid rain and may affect terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers. NO<sub>2</sub> can irritate the lungs and may potentially lower resistance to respiratory infections (EPA 2016a).

**Carbon Monoxide.** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the Project site, automobile exhaust accounts for the majority of CO emissions. CO is a

<sup>3</sup> The descriptions of each of the criteria air pollutants and associated health effects are based on the EPA's "Criteria Air Pollutants" (EPA 2016a) and CARB's "Glossary of Air Pollution Terms" (2016b).

<sup>4</sup> The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward approximately 5 miles at the poles and 10 miles at the equator.

nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November through February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO<sub>2</sub> are coal and oil used in power plants and industries; as such, the highest levels of SO<sub>2</sub> are generally found near large industrial complexes. In recent years, SO<sub>2</sub> concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO<sub>2</sub> and limits on the sulfur content of fuels.

SO<sub>2</sub> is an irritant gas that affects the throat and lungs, and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO<sub>2</sub> can injure lung tissue and reduce visibility and the level of sunlight. SO<sub>2</sub> can also yellow plant leaves, and erode iron and steel.

**Particulate Matter.** Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. Coarse particulate matter (PM<sub>10</sub>) consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter (PM<sub>2.5</sub>) consists of particulate matter that is 2.5 microns or less in diameter and is roughly one-twentieth the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOCs.

PM<sub>2.5</sub> and PM<sub>10</sub> pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM<sub>2.5</sub> and PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly, or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM<sub>10</sub> tends to collect in the upper portion of the respiratory system, PM<sub>2.5</sub> is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle, and produce haze and reduce regional visibility.

People with influenza, chronic respiratory or cardiovascular disease, and older adults may suffer worsening illness and premature death as a result of breathing particulate matter. Premature mortality has been linked to PM<sub>2.5</sub> exposure, even in otherwise healthy populations. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM<sub>10</sub> and PM<sub>2.5</sub> (EPA 2009).

**Lead.** Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Before 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

**Sulfates.** Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO<sub>2</sub> in the atmosphere. Sulfates can result in respiratory impairment and reduced visibility.

**Vinyl Chloride.** Vinyl chloride is a colorless gas with a mild, sweet odor that has been detected near landfills, sewage plants, and hazardous waste sites due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

**Hydrogen Sulfide.** Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

**Visibility-Reducing Particles.** Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for PM<sub>2.5</sub>, described above.

**Volatile Organic Compounds.** Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O<sub>3</sub> are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O<sub>3</sub> and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

### Non-Criteria Air Pollutants

**Toxic Air Contaminants.** A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. In California, specific air toxics are designated as TACs through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. Federal laws use the term “hazardous air pollutants” to refer to the same types of compounds that are referred to as TACs under state law.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

**Diesel Particulate Matter.** Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (approximately 1/70th the diameter of a human hair), and thus is a subset of PM<sub>2.5</sub> (CARB 2016b). DPM is typically composed of carbon particles (“soot,” also called black carbon) and numerous organic compounds, including more than 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016b). The CARB classified “particulate emissions from diesel-fueled engines” (i.e., DPM; 17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars, and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). Because it is part of PM<sub>2.5</sub>, DPM also contributes to the same non-cancer health effects as PM<sub>2.5</sub> exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and older adults who often have chronic health problems.

**Odorous Compounds.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population, and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

**Valley Fever.** Coccidioidomycosis, more commonly known as “Valley Fever,” is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earthmoving operations, can cause the spores to become airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

San Diego County is not considered a highly endemic region for Valley Fever, and the San Diego County Health and Human Services Agency listed having 4.4 cases per 100,000 people (CDPH 2017). The Project site is located within the 92025 zip code; the incidence of Coccidioidomycosis is either less than the average County rate or had too few cases to be reliably used to calculate a rate (Nelson 2018). For comparison, statewide incidences in 2016 were 13.7 per 100,000 people (CDPH 2017).

Even if present at a site, earthmoving activities may not result in increased incidence of Valley Fever. Propagation of *Coccidioides immitis* is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. *Coccidioides immitis* spores can be released when filaments are disturbed by earthmoving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to *Coccidioides immitis* does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

### Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, older adults, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air-pollution-sensitive people live or spend considerable amounts of time are known as “sensitive receptors.” Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to toxic air contaminants, such as children, older adults, and the ill. Sensitive receptors include schools (grades Kindergarten through 12), daycare centers, nursing homes, retirement homes, health clinics, and hospitals within 2 kilometers of a facility (SDAPCD 2015b).

The closest sensitive receptors (single-family residences) are located along the Project site’s western boundary. Del Rio Elementary School and the Melba Bishop Recreation Center are located approximately 0.19 miles west of the Project site. In addition, the proposed Project would result in the development of residences, which would be considered sensitive receptors.

## 2.4.2 San Diego Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as in “attainment” or “nonattainment” for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as “attainment” for that pollutant. If an area exceeds the standard, the area is classified as “nonattainment” for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as “unclassified” or “unclassifiable.” The designation of “unclassifiable/attainment” means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved Maintenance Plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, calls for the designation of areas as “attainment” or “nonattainment,” but based on the CAAQS rather than the NAAQS. Table 2, San Diego Air Basin Attainment Classification, depicts the current attainment status of the Project site with respect to the NAAQS and CAAQS.

**Table 2. San Diego Air Basin Attainment Classification**

| Pollutant                                | Designation/Classification                                  |               |
|--|---|---------------|
|  | NAAQS (Federal)   | CAAQS (State) |
| Ozone ( $O_3$ ) – 1 hour <sup>a</sup>    | Attainment <sup>a</sup>                                     | Nonattainment |
| $O_3$ (8-hour – 1997)<br>(8-hour – 2008) | Attainment (Maintenance)<br><b>Nonattainment (Moderate)</b> | Nonattainment |
| Nitrogen Dioxide ( $NO_2$ )              | Unclassifiable/Attainment                                   | Attainment    |

**Table 2. San Diego Air Basin Attainment Classification**

| Pollutant                                     | Designation/Classification |                      |
|---|----------------------------|----------------------|
|   | NAAQS (Federal)            | CAAQS (State)        |
| Carbon Monoxide (CO)                          | Attainment (Maintenance)   | Attainment           |
| Sulfur Dioxide (SO <sub>2</sub> )             | Unclassifiable/Attainment  | Attainment           |
| Coarse Particulate Matter (PM <sub>10</sub> ) | Unclassifiable/Attainment  | <b>Nonattainment</b> |
| Fine Particulate Matter (PM <sub>2.5</sub> )  | Unclassifiable/Attainment  | <b>Nonattainment</b> |
| Lead (Pb)                                     | Unclassifiable/Attainment  | Attainment           |
| Hydrogen Sulfide                              | No federal standard        | Attainment           |
| Sulfates                                      | No federal standard        | Unclassified         |
| Visibility-Reducing Particles                 | No federal standard        | Unclassified         |
| Vinyl Chloride                                | No federal standard        | No designation       |

**Sources:** EPA 2016b (federal); CARB 2016c (state).

**Notes:**

Attainment = meets the standards; Attainment/Maintenance = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify; Unclassifiable/Attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

<sup>a</sup> The federal 1-hour standard of 0.12 parts per million 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 SIPs.

In summary, the SDAB is designated as an attainment area for the 1997 8-hour O<sub>3</sub> NAAQS and as a nonattainment area for the 2008 8-hour O<sub>3</sub> NAAQS. The SDAB is designated as a nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> CAAQS. The portion of the SDAB where the Project site is located in is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

### 2.4.3 Air Quality Monitoring Data

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Local ambient air quality is monitored by the SDAPCD. The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County that measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and NAAQS. The nearest SDAPCD-operated monitoring station is the Escondido monitoring station, which is located approximately 2 miles southwest of the Project site. This site was used to show the background ambient air quality for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The closest monitoring station that measures NO<sub>2</sub> is the Camp Pendleton monitoring station, located at 21441 West B Street, Camp Pendleton, California. The closest monitoring site that measures CO and SO<sub>2</sub> is the Floyd Smith Drive monitoring station, located at 10537 Floyd Smith Drive, El Cajon, which is approximately 22 miles south of the Project site. The most recent background ambient air quality data and number of days exceeding the ambient air quality standards from 2015 to 2017 are presented in Table 3, Local Ambient Air Quality Data.

**Table 3. Local Ambient Air Quality Data**

| Averaging Time  | Unit                     | Agency/<br>Method | Ambient Air<br>Quality<br>Standard | Measured Concentration<br>by Year |       |       | Exceedances by Year |      |      |
|---|--------------------------|-------------------|------------------------------------|-----------------------------------|-------|-------|---------------------|------|------|
|   |                          |                   |                                    | 2015                              | 2016  | 2017  | 2015                | 2016 | 2017 |
| <b>Ozone (<math>O_3</math>) – Escondido – E. Valley Parkway</b>                                     |                          |                   |                                    |                                   |       |       |                     |      |      |
| Maximum 1-hour concentration  | ppm                      | State             | 0.09                               | 0.079                             | —     | —     | 0                   | —    | —    |
| Maximum 8-hour concentration  | ppm                      | State             | 0.070                              | 0.071                             | —     | —     | 3                   | —    | —    |
|   |                          | Federal           | 0.070                              | 0.071                             | —     | —     | 2                   | —    | —    |
| <b>Nitrogen Dioxide (<math>NO_2</math>) – Camp Pendleton</b>  |                          |                   |                                    |                                   |       |       |                     |      |      |
| Maximum 1-hour concentration  | ppm                      | State             | 0.18                               | 0.060                             | 0.072 | 0.057 | 0                   | 0    | 0    |
|   |                          | Federal           | 0.100                              | 0.060                             | 0.072 | 0.057 | 0                   | 0    | 0    |
| Annual concentration  | ppm                      | State             | 0.030                              | 0.006                             | 0.006 | 0.006 | —                   | —    | —    |
|   |                          | Federal           | 0.053                              | 0.006                             | 0.006 | 0.006 | —                   | —    | —    |
| <b>Carbon Monoxide (CO) – El Cajon</b>  |                          |                   |                                    |                                   |       |       |                     |      |      |
| Maximum 1-hour concentration  | ppm                      | State             | 20                                 | 1.4                               | 1.7   | 1.5   | 0                   | 0    | 0    |
|   |                          | Federal           | 35                                 | 1.4                               | 1.4   | 1.5   | 0                   | 0    | 0    |
| Maximum 8-hour concentration  | ppm                      | State             | 9.0                                | 1.1                               | 1.0   | 1.4   | 0                   | 0    | 0    |
|   |                          | Federal           | 9                                  | 1.1                               | 1.1   | 1.4   | 0                   | 0    | 0    |
| <b>Sulfur Dioxide (<math>SO_2</math>) – Floyd Smith Drive</b>                                       |                          |                   |                                    |                                   |       |       |                     |      |      |
| Maximum 1-hour concentration  | ppm                      | Federal           | 0.075                              | 0.012                             | 0.012 | 0.018 | 0                   | 0    | 0    |
| Maximum 24-hour concentration   | ppm                      | Federal           | 0.14                               | 0.004                             | 0.004 | 0.005 | 0                   | 0    | 0    |
| Annual concentration  | ppm                      | Federal           | 0.030                              | 0.001                             | 0.001 | 0.001 | 0                   | 0    | 0    |
| <b>Coarse Particulate Matter (<math>PM_{10}</math>)<sup>a</sup> – Escondido – E. Valley Parkway</b> |                          |                   |                                    |                                   |       |       |                     |      |      |
| Maximum 24-hour concentration   | $\mu\text{g}/\text{m}^3$ | State             | 50                                 | 30.0                              | —     | —     | —                   | —    | —    |
|   |                          | Federal           | 150                                | 31.0                              | —     | —     | —                   | —    | —    |
| Annual concentration  | $\mu\text{g}/\text{m}^3$ | State             | 20                                 | 17.5                              | —     | —     | 0.0 (0)             | —    | —    |
| <b>Fine Particulate Matter (<math>PM_{2.5}</math>)<sup>a</sup> – Escondido – Camp Pendleton</b>     |                          |                   |                                    |                                   |       |       |                     |      |      |
| Maximum 24-hour concentration   | $\mu\text{g}/\text{m}^3$ | Federal           | 35                                 | 41.2                              | 28.8  | 26.0  | —                   | —    | —    |
| Annual concentration  | $\mu\text{g}/\text{m}^3$ | State             | 12                                 | —                                 | —     | —     | —                   | —    | —    |
|   |                          | Federal           | 12.0                               | —                                 | —     | —     | —                   | —    | —    |

**Sources:** CARB 2016d; EPA 2016c.

**Notes:** — = insufficient data available to determine the value ;  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter; ppm = parts per million

Data taken from CARB iADAM (<http://www.arb.ca.gov/adam>) and EPA AirData (<http://www.epa.gov/airdata/>) represent the highest concentrations experienced over a given year.

Daily exceedances for particulate matter are estimated days because  $PM_{10}$  and  $PM_{2.5}$  are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour  $O_3$ , annual  $PM_{10}$ , or 24-hour  $SO_2$ , nor is there a state 24-hour standard for  $PM_{2.5}$ .

Escondido monitoring station is located at 600 E. Valley Parkway.

Camp Pendleton monitoring station is located at 21441 West B Street, Camp Pendleton, California.

El Cajon monitoring station is located at West Bradley Avenue and Floyd Smith Drive, El Cajon, California.

<sup>a</sup> Measurements of  $PM_{10}$  and  $PM_{2.5}$  are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

# 3 Significance Criteria and Methodology

## 3.1 Thresholds of Significance

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact on air quality if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether a project would have a significant impact on air quality.

As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources (SDAPCD 2016b). The SDAPCD sets forth quantitative emissions thresholds below which a stationary source would not have a significant impact on ambient air quality. Although these trigger levels do not generally apply to mobile sources or general land development projects, for comparative purposes, these levels may be used to evaluate the increased emissions that would be discharge to the SDAB from proposed land development projects (County of San Diego 2007). Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4, SDAPCD Air Quality Significance Thresholds, are exceeded.

**Table 4. SDAPCD Air Quality Significance Thresholds**

| Construction Emissions                            |   |
|---|---|
| <i>Pollutant</i>                                  | <i>Total Emissions (Pounds per Day)</i> |
| Respirable Particulate Matter (PM <sub>10</sub> ) | 100                                     |
| Fine Particulate Matter (PM <sub>2.5</sub> )      | 55                                      |
| Oxides of Nitrogen (NO <sub>x</sub> )             | 250                                     |
| Oxides of Sulfur (SO <sub>x</sub> )               | 250                                     |
| Carbon Monoxide (CO)                              | 550                                     |
| Volatile Organic Compounds (VOC)                  | 75*                                     |

**Table 4. SDAPCD Air Quality Significance Thresholds**

| Operational Emissions                             |                 |                |               |               |
|---|-----------------|----------------|---------------|---------------|
| Pollutant   | Total Emissions |                |               | Tons per Year |
|   | Pounds per Hour | Pounds per Day | Tons per Year |               |
| Respirable Particulate Matter (PM <sub>10</sub> ) | —               | 100            | 15            |               |
| Fine Particulate Matter (PM <sub>2.5</sub> )      | —               | 55             | 10            |               |
| Oxides of Nitrogen (NO <sub>x</sub> )             | 25              | 250            | 40            |               |
| Sulfur Oxides (SO <sub>x</sub> )                  | 25              | 250            | 40            |               |
| Carbon Monoxide (CO)                              | 100             | 550            | 100           |               |
| Lead and Lead Compounds                           | —               | 3.2            | 0.6           |               |
| Volatile Organic Compounds (VOC)                  | —               | 75*            | 13.7          |               |

Sources: SDAPCD Rule 1501 (SDAPCD 1995) and Rule 20.2(d)(2) (SDAPCD 2016b).

\* VOC threshold based on the threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley as stated in the San Diego County Guidelines for Determining Significance.

The thresholds listed in Table 4 represent screening-level thresholds that can be used to evaluate whether Project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. The emissions-based thresholds for O<sub>3</sub> precursors are intended to serve as a surrogate for an “O<sub>3</sub> significance threshold” (i.e., the potential for adverse O<sub>3</sub> impacts to occur). This approach is used because O<sub>3</sub> is not emitted directly (see the discussion of O<sub>3</sub> and its sources in Section 2.4.1, Pollutants and Effects), and because the effects of an individual project’s emissions of O<sub>3</sub> precursors (VOC and NO<sub>x</sub>) on O<sub>3</sub> levels in ambient air cannot be determined through air quality models or other quantitative methods. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4, the proposed Project could have the potential to result in a cumulatively considerable net increase in these pollutants, and thus could have a significant impact on ambient air quality.

With respect to odors, SDAPCD Rule 51, Public Nuisance, prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

## 3.2 Construction Emissions Methodology

Emissions from the construction phase of the proposed Project were estimated using the California Emissions Estimator Model (CaLEEMod) Version 2016.3.2 (CAPCOA 2017).

For the purposes of modeling, it was assumed that construction of the Project would commence in June 2020 and would occur over approximately 6 years, ending in May 2026.

As described in Section 1.3, Project Description, the proposed Project would involve the demolition of the existing hospital, which is approximately 392,000 square feet in size. Following demolition of the existing hospital, site preparation and grading of an approximately 13.8-acre site would commence. Based on preliminary information provided by the project applicant, approximately 212,361 cubic yards would be cut and 227,831 cubic yards would be filled back in, requiring an import of approximately 15,470 cubic yards. Balancing activities are anticipated to be performed through the use of off-road construction equipment (e.g., excavators, graders, dozers, and scrapers). Blasting activities are not anticipated for the Project and are

not accounted for in this analysis. The analysis contained herein is based on the assumptions outlined in Table 5, Construction Phasing Assumptions (the duration of phases is approximate). The Project schedule was based on information provided by the Project applicant

**Table 5. Construction Phasing Assumptions**

| Project Construction Phase | Construction Start Month/Year | Construction End Month/Year |
|----------------------------|-------------------------------|-----------------------------|
| Demolition                 | 06/2020                       | 12/2020                     |
| Site Preparation           | 01/2021                       | 05/2021                     |
| Grading                    | 05/2021                       | 11/2021                     |
| Paving 1                   | 11/2021                       | 02/2022                     |
| Building Construction      | 02/2022                       | 05/2026                     |
| Paving 2                   | 01/2025                       | 03/2025                     |
| Architectural Coating      | 01/2026                       | 05/2026                     |

**Source:** Integral Communities 2019.

The construction equipment mix used for estimating the construction emissions of the proposed Project was based on information provided by the applicant and CalEEMod default values, and is shown in Table 6, Construction Scenario Assumptions. Notably, because detailed specific information regarding the construction equipment fleet was unknown at the time of analysis, the analysis is based on the default construction equipment fleet provided by CalEEMod. The construction tabs within CalEEMod contain default information that was obtained from a survey of construction sites conducted by South Coast Air Quality Management District (CAPCOA 2017). The construction survey data is grouped by construction phase and lot acreage, and can be found in Appendix E1 of the CalEEMod User Guide. The default construction equipment list and phase length data were determined to be the most appropriate for the size and types surveyed. Furthermore, because of data gaps presented in the projects surveyed, the data was extrapolated to create default values for project sizes that were not in the survey (CAPCOA 2017).

**Table 6. Construction Scenario Assumptions**

| Construction Phase | One-Way Vehicle Trips      |                                  |                        | Equipment                 |          |             |
|--------------------|----------------------------|----------------------------------|------------------------|---------------------------|----------|-------------|
|                    | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Total Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Demolition         | 16                         | 0                                | 1,784                  | Concrete/Industrial Saws  | 1        | 8           |
|                    |                            |                                  |                        | Excavators                | 3        | 8           |
|                    |                            |                                  |                        | Rubber-Tired Dozers       | 2        | 8           |
|                    |                            |                                  |                        | Rubber-Tired Dozers       | 3        | 8           |
| Site Preparation   | 18                         | 0                                | 0                      | Tractors/Loaders/Bulkhoes | 4        | 8           |
|                    |                            |                                  |                        | Excavators                | 2        | 8           |
| Grading            | 20                         | 0                                | 1,530                  | Graders                   | 1        | 8           |
|                    |                            |                                  |                        | Rubber-Tired Dozers       | 1        | 8           |
|                    |                            |                                  |                        | Scrapers                  | 2        | 8           |
|                    |                            |                                  |                        | Tractors/Loaders/Bulkhoes | 2        | 8           |

**Table 6. Construction Scenario Assumptions**

| Construction Phase    | One-Way Vehicle Trips      |                                  |                        | Equipment                 |          |             |
|-----------------------|----------------------------|----------------------------------|------------------------|---------------------------|----------|-------------|
|                       | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Total Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Paving 1              | 16                         | 0                                | 0                      | Pavers                    | 2        | 8           |
|                       |                            |                                  |                        | Paving Equipment          | 2        | 8           |
|                       |                            |                                  |                        | Rollers                   | 2        | 8           |
| Building Construction | 526                        | 116                              | 0                      | Cranes                    | 1        | 7           |
|                       |                            |                                  |                        | Forklifts                 | 3        | 8           |
|                       |                            |                                  |                        | Generator Sets            | 1        | 8           |
|                       |                            |                                  |                        | Tractors/Loaders/Backhoes | 3        | 7           |
|                       |                            |                                  |                        | Trenchers                 | 1        | 8           |
|                       |                            |                                  |                        | Welders                   | 1        | 8           |
| Paving 2              | 16                         | 0                                | 0                      | Pavers                    | 2        | 8           |
|                       |                            |                                  |                        | Paving Equipment          | 2        | 8           |
|                       |                            |                                  |                        | Rollers                   | 2        | 8           |
| Architectural Coating | 106                        | 0                                | 0                      | Air Compressors           | 1        | 6           |

**Note:** See Appendix A for details.

Construction phasing specifications were provided by the Project applicant, and the default values generated by CalEEMod were used for the construction equipment mix. This equipment mix accounts for on-site construction equipment and construction equipment required for off-site improvements. For the analysis, it was generally assumed that heavy construction equipment would be operating on the Project site and at the off-site improvement areas for approximately 8 hours per day, 5 days per week (22 days per month) during Project construction. CalEEMod defaults were applied for worker, haul, and vendor trips (CAPCOA 2017).

Construction of Project components would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that construction of a project includes steps to restrict visible emissions of fugitive dust beyond the property line (SDAPCD 2009b). Compliance with Rule 55 would limit fugitive dust ( $PM_{10}$  and  $PM_{2.5}$ ) that may be generated during grading and construction activities.

A detailed depiction of the construction schedule—including information regarding subphases, demolition, and equipment used during each subphase—is included in Appendix A, Emissions Calculations, of this report. The information contained in Appendix A was used as CalEEMod model inputs.

### 3.3 Operational Emissions Methodology

Emissions from the operational phase of the Project were estimated using CalEEMod. Operational year 2025 was assumed, since it would be the first year following completion of construction.

The existing hospital generates criteria air pollutant emissions, primarily associated with vehicular traffic. Emissions generated during operation of the existing facility were estimated to provide a baseline for comparison to projected operational emissions generated by buildup of the proposed Project. An operational year of 2020 was used to represent existing conditions because that is anticipated to be the last year of operation of the hospital before demolition of the site.

### 3.3.1 Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating were calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, and architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of commercial buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of surface coatings based on the VOC emissions factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. VOC emissions were estimated based on compliance with SDAPCD Rule 67.0.1. Rule 67.0.1 provides VOC content limits for various coatings. The three general coatings categories are 50 grams per liter (g/L) VOC for flat coatings, 100 g/L VOC for non-flat coatings, and 150 g/L VOC for non-flat high-gloss coatings. Consistent with typical construction practices, it is anticipated that interior paint would not exceed flat coating limits, exterior paint would not exceed non-flat coating limits, and a small portion of exterior paint and finishes (trim and other minor finishes) would not exceed non-flat high-gloss coatings limits. It was assumed that all residential and non-residential interior architectural coatings would be 50 g/L VOC, and exteriors architectural coatings would be 100 g/L VOC.<sup>5</sup> The VOC emissions factor is based on the VOC content of the surface coatings, and SDAPCD's Rule 67.0.1, Architectural Coatings, governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015a). The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2017). For parking lot land uses, 250 g/L VOC was assumed, consistent with CalEEMod default VOC rates. For the proposed Project, residential and non-residential interior VOC concentrations were adjusted to account for SCAPCD Rule 67.0.1.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated from landscape equipment use for the existing hospital and the proposed Project were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

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<sup>5</sup> SDAPCD Rule 67.0.1 identifies VOC limits for various specialty coatings that exceed 150 g/L VOC, but the primarily residential Project is not anticipated to require a substantial amount of specialty coatings. In addition, many of the specialty coating categories have limits of less than 150 g/L, including driveway sealers (50 g/L VOC); floor coatings (100 g/L VOC); and primers, sealers, and undercoaters (100 g/L VOC).

### 3.3.2 Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gases in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site.

CalEEMod default values for energy consumption for each land use were applied for Project analysis. The energy use from non-residential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. The program uses data collected during the Residential Appliance Saturation Survey to develop energy intensity values (electricity and natural gas usage per square foot per year) for residential buildings. Energy use in buildings (both natural gas and electricity) is divided by the program into end-use categories, subject to Title 24 requirements (end uses associated with the building envelope, such as the heating, ventilation, and air conditioning system; water heating system; and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous “plug-in” uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California’s building standards. The most recent amendments to Title 24, Part 6, referred to as the 2019 standards, will become effective on January 1, 2020.

### 3.3.3 Mobile Sources

To quantify emissions associated with Project operational mobile sources, trip generation rates for each analyzed land use were adjusted in CalEEMod to match the overall weekday daily trips (4,264 trips) provided by the traffic consultant (LLG 2020). CalEEMod default data, including trip characteristics, variable start information, and emissions factors, were conservatively used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles, consistent with CalEEMod default vehicle fleet assumptions. Emissions factors for 2025 (the first year of Project operation) were used to estimate emissions associated with full buildup of the Project. The traffic consultant did not account for a reduction in internal vehicle trips based on the pedestrian and bicycle amenities provided because it is difficult to quantify the reduction in trips assuming people would walk or ride their bicycles to go to the Project’s commercial amenities, for example. No VMT reduction associated with pedestrian and bicycle use was assumed in CalEEMod. Not accounting for any internal trip reduction provides a more conservative analysis.

To quantify emissions associated with the existing hospital, trip generation rates were adjusted in CalEEMod to match the overall weekday daily trips (2,120 trips) provided by the traffic consultant (LLG 2020). Similar to the proposed Project’s CalEEMod default data for trip characteristics, variable start information and emissions factors were conservatively used for the model inputs. Traffic was assumed to include a mixture of vehicles, consistent with CalEEMod default vehicle fleet assumptions. Emissions factors for 2020 (the last year of operation for the existing hospital) were used to estimate existing emissions.

## 3.4 Carbon Monoxide Hotspots

Mobile source impacts occur on two scales of motion: regionally and locally. Regionally, Project-related travel would add to regional trip generation and increase VMT within the local airshed and the SDAB. Locally, Project-generated traffic would be added to the County's roadway system near the Project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and/or is operating on roadways already congested with non-Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic.

In addition to the numerous factors that would need to be present for a CO hotspot to occur, the potential for CO hotspots in the SDAB is steadily decreasing because of the continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, and the already very low ambient CO concentrations. Furthermore, CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors such as residents, school children, hospital patients, and older adults. Typically, high CO concentrations are associated with roadways or intersections operating at an unacceptable level of service (LOS). Projects contributing to adverse traffic impacts may result in the formation of CO hotspots.

Because the City does not have CO hotspot guidance, the guidance recommended by the County was applied to evaluate the potential for CO hotspots to occur as a result of the Project. As indicated in the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality (County of San Diego 2007), a site-specific CO hotspot analysis should be performed if a proposed development would cause road intersections to operate at or below LOS E with intersection peak-hour trips exceeding 3,000. Appendix B presents additional details for the Project's CO hotspot assessment.

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# 4 Project Impact Analysis

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This section evaluates the air quality impacts associated with the proposed Project. The SDAPCD's significance criteria described in Section 3, Significance Criteria and Methodology, was used to evaluate impacts associated with construction and operation of the proposed Project.

## **4.1 Would the project conflict with or obstruct implementation of the applicable air quality plan?**

As noted in Section 2.3, Regulatory Setting, the SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the SDAB—specifically, the SIP and RAQS.<sup>7</sup> The federal O<sub>3</sub> maintenance plan, which is part of the SIP, was adopted in 2012. The most recent O<sub>3</sub> attainment plan was adopted in 2016. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of development of their general plans.

If a project proposes development that is greater than that anticipated in the local plan and/or SANDAG's growth projections, that project might be in conflict with the SIP and RAQS, and may contribute to a potentially significant cumulative impact on air quality. According to the City's Zoning Map (City of Escondido 2017), the Project site has a designation of "Specific Plan." The Project would require an amendment to allow for ground-floor residential uses, but would not require any changes to the existing residential, commercial, or parking density specifications established in the Specific Plan.

Although the SDAPCD and City do not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County's Guidelines for Determining Significance and Report and Format and Content Requirements – Air Quality does discuss conformance with the RAQS (County of San Diego 2007). The guidance indicates that if a project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG's growth projections for that city, that project would not be in conflict with the RAQS (County of San Diego 2007). As previously discussed, the proposed Project would require a zoning amendment to refine the land uses allowable for the Project site. Therefore, the proposed Project would contribute to additional unaccounted for growth in the region.

The guidance also indicates that, in the event that a project requires a general plan amendment, additional analysis may still provide substantial evidence that the growth is accounted for in the RAQS assumptions. To demonstrate conformance in this case, a growth projection analysis can be completed for the applicable city by comparing the SANDAG growth projections with the actual development expected to occur.

SANDAG's population estimate for the City of Escondido in 2020 (the closest year SANDAG has available data to 2025) is 165,214 and the forecasted population in 2035 (the closest year SANDAG has available data to a Project

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<sup>7</sup> For the purpose of this discussion, the relevant federal air quality plan is the ozone maintenance plan (SDAPCD 2012). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the basin.

buildout of 2025) is 172,892. Therefore, SANDAG's projections anticipated approximately 7,678 new residents in this State Responsibility Area over a 15-year period.

The addition of 510 residential units (approximately 1,571<sup>8</sup> new residents) to the City as a result of the Project would be accommodated in the population forecast used to prepare the 2016 RAQS. Although the proposed Project was not included in the underlying growth estimates for the SDAB used as the basis for the SIP and RAQS update, it would not conflict with or obstruct implementation of the SIP or RAQS because the SANDAG population projections for the City would accommodate more growth (7,678 new residents) than that associated with the proposed Project (1,571 residents). Because the growth forecasts and development assumptions upon which the SIP and RAQS are based would not be exceeded and therefore would not result in greater emissions than anticipated in the SIP and RAQS, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan, and impacts would be **less than significant**.

### Mitigation Measures

No mitigation is required.

### Level of Significance After Mitigation

The proposed Project would have a less-than-significant impact without mitigation.

#### **4.2     *Would the project result in a cumulatively consider net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?***

### Construction Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity; the specific type of operation; and for dust, the prevailing weather conditions.

Criteria air pollutant emissions associated with construction were quantified using CalEEMod. Default values provided by CalEEMod were used where detailed Project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 3.2, Construction Emissions Methodology. The information contained in Appendix A was used as CalEEMod inputs.

Implementation of the Project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coating, and asphalt pavement application. Entrained dust results from the exposure of ground surfaces to wind from the direct disturbance and movement of soil, resulting in PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The proposed Project would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that the Project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in an approximately 61% reduction of particulate matter.

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<sup>8</sup> Number of residents based on the City of Escondido average household size of 3.08 persons per dwelling unit (SANDAG 2017a).

Exhaust from internal combustion engines used by construction equipment and worker vehicles would result in emissions of VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The application of architectural coatings and asphalt pavement would also produce VOC emissions.

Table 7 shows the estimated maximum daily construction emissions associated with construction of the Project. Complete details of the emissions calculations are provided in Appendix A of this document.

**Table 7. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions**

| Year                           | VOC                   | NO <sub>x</sub> | CO           | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|--------------------------------|-----------------------|-----------------|--------------|-----------------|------------------|-------------------|
|                                | <i>Pounds per Day</i> |                 |              |                 |                  |                   |
| 2020                           | 3.47                  | 36.53           | 22.98        | 0.05            | 3.15             | 1.82              |
| 2021                           | 5.95                  | 62.01           | 47.10        | 0.10            | 10.32            | 6.39              |
| 2022                           | 5.45                  | 39.11           | 46.66        | 0.12            | 6.67             | 2.74              |
| 2023                           | 3.69                  | 24.24           | 30.39        | 0.09            | 5.85             | 2.07              |
| 2024                           | 3.50                  | 23.08           | 29.47        | 0.09            | 5.76             | 1.99              |
| 2025                           | 4.57                  | 30.52           | 43.51        | 0.11            | 6.22             | 2.32              |
| 2026                           | 52.30                 | 23.04           | 31.66        | 0.10            | 6.60             | 2.19              |
| <b>Maximum Daily Emissions</b> | <b>52.30</b>          | <b>62.01</b>    | <b>47.10</b> | <b>0.12</b>     | <b>10.32</b>     | <b>6.39</b>       |
| <i>SDAPCD Threshold</i>        | 75                    | 250             | 550          | 250             | 100              | 55                |
| <b>Threshold Exceeded?</b>     | <b>No</b>             | <b>No</b>       | <b>No</b>    | <b>No</b>       | <b>No</b>        | <b>No</b>         |

**Source:** See Appendix A for detailed results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod. These emissions reflect CalEEMod “mitigated” output, which accounts for compliance with SDAPCD Rule 55, Fugitive Dust.

VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; SDAPCD = San Diego Air Pollution Control District.

As shown in Table 7, daily construction emissions would not exceed the significance thresholds for any criteria air pollutant. Therefore, impacts during construction would be less than significant.

### Operational Emissions

The proposed Project would involve development of 510 residential dwelling units and supporting commercial services. Operation of the Project would generate VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources, including vehicle trips; area sources, including the use of consumer products, natural gas hearths, and landscape maintenance equipment; and energy sources. As discussed in Section 3.3, Operational Emissions Methodology, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on Project-specific trip rates and trip lengths. CalEEMod default values were used, with the exception natural gas, to estimate emissions from the Project and energy sources.

Table 8, Estimated Maximum Daily Operational Criteria Air Pollutant Emissions, presents the maximum daily area, energy, and mobile source emissions associated with operation of the existing hospital (Operational Year 2020) and of the proposed Project (Operational Year 2026). The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix A.

**Table 8. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions**

| Emission Source            | VOC          | NO <sub>x</sub> | CO            | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|----------------------------|--------------|-----------------|---------------|-----------------|------------------|-------------------|
| <i>Pounds per Day</i>      |              |                 |               |                 |                  |                   |
| <b><i>Existing</i></b>     |              |                 |               |                 |                  |                   |
| Area                       | 11.12        | >0.01           | 0.15          | >0.01           | >0.01            | >0.01             |
| Energy                     | 0.67         | 6.10            | 5.13          | 0.04            | 0.46             | 0.46              |
| Mobile                     | 3.85         | 15.92           | 42.99         | 0.18            | 11.92            | 3.62              |
| <b><i>Proposed</i></b>     |              |                 |               |                 |                  |                   |
| Area                       | 29.35        | 7.02            | 159.22        | 0.41            | 19.39            | 19.39             |
| Energy                     | 0.14         | 1.21            | 0.58          | 0.01            | 0.10             | 0.10              |
| Mobile                     | 5.60         | 22.96           | 67.34         | 0.25            | 24.65            | 6.71              |
| <b>Net Total</b>           | <b>19.45</b> | <b>9.61</b>     | <b>178.87</b> | <b>0.45</b>     | <b>31.75</b>     | <b>22.12</b>      |
| <i>SDAPCD Threshold</i>    | 75           | 250             | 550           | 250             | 100              | 55                |
| <b>Threshold Exceeded?</b> | <b>No</b>    | <b>No</b>       | <b>No</b>     | <b>No</b>       | <b>No</b>        | <b>No</b>         |

**Source:** See Appendix A for detailed results.

**Notes:** Emissions were modeled with CalEEMod and are based on the “mitigated” CalEEMod outputs.

VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter;

PM<sub>2.5</sub> = fine particulate matter; SDAPCD = San Diego Air Pollution Control District.

As shown in Table 8, the combined daily area, energy, and mobile source emissions from the proposed project would not exceed the SDAPCD’s operational thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> and after accounting for the emissions associated with the existing hospital emissions would be further reduced. Therefore, impacts associated with project operational criteria air pollutant emissions would be **less than significant**.

### Mitigation Measures

No mitigation is required.

### Level of Significance After Mitigation

The proposed Project would have a less-than-significant impact without mitigation.

### 4.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts on people termed “sensitive receptors” are the most serious hazards of air quality conditions. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. Sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest sensitive receptors (multi-family residences) are located along the Project’s southern boundary. In addition, the proposed Project would result in the development of residences, which would be considered sensitive receptors.

Table 9, Pollutants, Sources, Health Effects, and Attainment Status, presents a list of the criteria pollutants and other related pollutants of concern, emissions sources, associated health effects, and current SDAB attainment status.

**Table 9. Pollutants, Sources, Health Effects, and Attainment Status**

| Pollutant                  | Sources  | Health Effects   | Attainment Status             |               |
|----------------------------|--|--|-------------------------------|---------------|
|                            |  |  | NAAQS<br>(Federal)            | CAAQS (State) |
| O <sub>3</sub>             | Formed when VOCs and NO <sub>x</sub> react in the presence of sunlight. VOC sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil), solvents, and petroleum processing and storage.      | Breathing difficulties, lung tissue damage, vegetation damage, damage to rubber and some plastics.   | Nonattainment                 | Nonattainment |
| PM <sub>10</sub>           | Road dust, windblown dust, agriculture, construction, and fireplaces. Also formed from other pollutants (NO <sub>x</sub> , SO <sub>x</sub> , organics). Incomplete combustion.   | Increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling.  | Unclassifiable/<br>Attainment | Nonattainment |
| PM <sub>2.5</sub>          | Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. Also formed from reaction of other pollutants (NO <sub>x</sub> , SO <sub>x</sub> , organics, and ammonia). | Increases respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. Particles can aggravate heart diseases such as congestive heart failure and coronary artery disease. | Unclassifiable/<br>Attainment | Nonattainment |
| CO                         | Any source that burns fuel such as automobiles, trucks, heavy construction and farming equipment, residential heating.   | Chest pain in heart patients, headaches, reduced mental alertness.   | Attainment                    | Attainment    |
| NO <sub>2</sub>            | See carbon monoxide (CO).  | Lung irritation and damage. Reacts in the atmosphere to form ozone and acid rain.  | Unclassifiable/<br>Attainment | Attainment    |
| Lead                       | Metal smelters, resource recovery, leaded gasoline, deterioration of lead paint.   | Learning disabilities, brain and kidney damage.  | Unclassifiable/<br>Attainment | Attainment    |
| SO <sub>2</sub>            | Coal or oil burning power plants and industries, refineries, diesel engines.   | Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.  | Unclassifiable/<br>Attainment | Attainment    |
| Sulfates                   | Produced by reaction in the air of SO <sub>2</sub> , (see SO <sub>2</sub> sources), a component of acid rain.  | Breathing difficulties aggravates asthma, reduced visibility.  | No federal standard           | Attainment    |
| Hydrogen Sulfide           | Geothermal power plants, petroleum production and refining, sewer gas.   | Nuisance odor (rotten egg smell), headache, and breathing difficulties (higher concentrations).  | No federal standard           | Unclassified  |
| Visibly Reducing Particles | See PM <sub>2.5</sub> .  | Reduced visibility (e.g., obscures mountains and other scenery), reduced airport safety.   | No federal standard           | Unclassified  |

**Table 9. Pollutants, Sources, Health Effects, and Attainment Status**

| Pollutant      | Sources  | Health Effects  | Attainment Status  |               |
|----------------|--|---|--------------------|---------------|
|                |  |   | NAAQS<br>(Federal) | CAAQS (State) |
| Vinyl Chloride | Exhaust gases from factories that manufacture or process vinyl chloride (construction, packaging, and transportation industries).            | Central nervous system effects (e.g., dizziness, drowsiness, headaches), kidney irritation, liver damage, liver cancer. | N/A                | N/A           |
| TAC            | Combustion engines (stationary and mobile), diesel combustion, storage and use of TAC-containing substances (e.g., gasoline, lead smelting). | Depends on TAC, but may include cancer, mutagenic and/or teratogenic effects, other acute or chronic health effects.    | N/A                | N/A           |

**Source:** County of San Diego 2007 (pollutant descriptions); EPA 2016b (federal); CARB 2016b (state).

O<sub>3</sub> = ozone; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; CO = carbon monoxide; NO<sub>2</sub> = nitrogen dioxide; SO<sub>2</sub> = sulfur dioxide; TAC = toxic air contaminant; N/A = not applicable

### Health Impacts of Toxic Air Contaminants

“Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard risk-assessment methodology from the Office of Environmental Health Hazard Assessment (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB Airborne Toxic Control Measures to reduce DPM emissions. According to the Office of Environmental Health Hazard Assessment, Health Risk Assessments should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with a project (OEHHA 2015). Thus, the duration of proposed construction activities (approximately 75 months) for the proposed Project would only constitute a small percentage of the total long-term exposure period, and would not result in exposure of proximate sensitive receptors to substantial TACs. Further, the Project would not exceed the SDAPCD construction threshold for PM<sub>10</sub>, which includes DPM and construction of the Project would not require any unusual construction practices that could lead to potentially risky pollutant exposures compared to standard practices. After construction is completed, there would be no long-term source of TAC emissions during operation of the Project. TACs impacts would be less than significant.

### Valley Fever Exposure

As discussed in Section 2.4.1, Pollutants and Effects, Valley Fever is not highly endemic to San Diego County, and the incident rate for the Project site is below the County average and the statewide average. The proposed Project would be consistent with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction, and would also control the release of the *Coccidioides immitis* fungus from construction activities by watering three times per day and limiting speed on unpaved roads to 15 miles per hour. The nearest existing off-site sensitive-receptor land use is existing residences, which are located south and west of the Project site. Based on the low incidence rate of Coccidioidomycosis for the Project site and in greater San Diego County, and the Project’s implementation of dust control strategies, it is not anticipated that earthmoving activities during Project construction would result in exposure of nearby sensitive receptors to Valley Fever. Therefore, the proposed Project would have a less-than-significant impact with respect to Valley Fever exposure to sensitive receptors.

## Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, Project-related travel would add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, Project traffic would be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and/or operates on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvements in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the proposed Project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. A Transportation Impact Analysis (LLG 2020) evaluated the LOS (i.e., increased congestion) impacts at intersections affected by the proposed Project. The potential for CO hotspots was evaluated based on the results of the traffic report. Since the City of Escondido does not have CO hotspot guidelines, the County's CO hotspot screening guidance (County of San Diego 2007) was followed to determine if the proposed Project would require a site-specific hotspot analysis. Per the California Department of Transportation (Caltrans) and the U.C. Davis Institute of Transportation Studies Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) (Caltrans 2010), the County recommends that a local CO hotspot analysis be conducted if the intersection meets one of the following criteria: (1) the project causes road intersections to operate at LOS E or worse and where peak-hour trips exceeds 3,000 trips, or (2) the project causes road intersections to operate at LOS E or worse and, under cumulative conditions, when the addition of peak-hour trips from the Project and surrounding projects exceeds 2,000 trips. The screening evaluation is included as Appendix B. If the screening criteria are exceeded, additional site-specific analyses are performed to determine whether a project would result in a significant impact.

A Transportation Impact Analysis (LLG 2020) was prepared for the proposed Project and evaluated whether there would be a decrease in LOS (e.g., congestion) at the intersections affected by the Project. The proposed Project's traffic analysis evaluated 15 intersections based on existing traffic volumes and current street geometry. As shown in Appendix B, three of the key study intersections would operate at LOS E or worse due to the Project, and would operate at greater than 2,000 peak-hour trips in the cumulative scenario:

1. N. Ivy Street and E. Valley Parkway (LOS F in the AM and PM)
2. S. Ivy Street and E. Grand Avenue (LOS F in the AM and PM)
3. N. Fig Street and E. Washington Street (LOS F in the AM and PM)

The remaining key intersections would operate at an acceptable LOS during the AM and PM peak hours in the scenarios evaluated (existing-plus-Project conditions, near-term existing-plus-cumulative plus-Project conditions, and year 2035 traffic conditions).

For each scenario, the screening evaluation presents LOS and whether a quantitative CO hotspot analysis may be required. The results above represent the worst-case year 2035 with general plan amendment land use traffic volumes and the proposed Project buildup. According to the CO Protocol, there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of a project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing the test described in the CO

Protocol, an additional intersection should be analyzed (Caltrans 2010). For the proposed Project, two intersections were analyzed, consistent with the CO Protocol, as discussed below.

Based on the CO hotspot screening evaluation (Appendix B), the intersections of N. Ivy Street and E. Valley Parkway and S. Ivy Street and E. Grand Avenue were modelled, as they were the only intersections meeting the County's recommendation, as discussed previously. The potential impact of the proposed Project on local CO levels was assessed at these intersections with the Caltrans CL4 interface based on the California LINE Source Dispersion Model (CALINE4), which allows microscale CO concentrations to be estimated along each roadway corridor or near intersections (Caltrans 1998a, 1998b).

The emissions factor represents the weighted average emissions rate of the local County vehicle fleet expressed in grams per mile per vehicle. Consistent with the traffic scenario, emissions factors for 2035 were used for the modeled intersection. Emissions factors for 2035 were predicted by the Mobile Source Emissions Inventory Model (EMFAC) (2014) based on a 5-mile-per-hour average speed for all of the intersections for approach and departure segments. The hourly traffic volume anticipated to travel on each link, in units of vehicles per hour, was based on information provided by the traffic consultant, and modeling assumptions are outlined in Appendix B.

Consistent with the CO Protocol (Caltrans 2010), four receptor locations at each intersection were modeled to determine CO ambient concentrations. A receptor was assumed on the sidewalk at each corner of the modeled intersections, for a total of four receptors adjacent to the intersection, to represent the future possibility of extended outdoor exposure. CO concentrations were modeled at these locations to assess the maximum potential CO exposure that could occur in 2035. A receptor height of 5.9 feet (1.8 meters) was used in accordance with Caltrans recommendations for all receptor locations (Caltrans 1998b).

The maximum CO concentration measured at the Redwood Avenue and Floyd Smith Drive monitoring stations in El Cajon over the last 3 years was 1.7 parts per million, which was measured in 2017 (EPA 2016c). This maximum 1-hour concentration value is used as the background concentration when evaluating the addition of the vehicle-generated CO emissions. To estimate an 8-hour average CO concentration, a persistence factor of 0.6, as calculated based on Caltrans guidance (Caltrans 2010), was applied to the output values of predicted concentrations in parts per million at each of the receptor locations.

The results of the model are shown in Table 10, CALINE4 Predicted Carbon Monoxide Concentrations. Model input and output data are provided in Appendix B.

**Table 10. CALINE4 Predicted Carbon Monoxide Concentrations**

| Intersection                                   | Maximum Modeled Impact for Year 2035<br>(without Melrose Drive extension)<br>with General Plan Amendment Land Use (ppm) |                     |
|--|---|---------------------|
|  | 1-Hour  | 8-Hour <sup>a</sup> |
| N. Ivy Street/E. Valley Parkway (AM peak hour) | 2.1   | 1.3                 |
| S. Ivy Street/E. Grand Avenue (PM peak hour)   | 2.3   | 1.4                 |
| N. Fig Street and E. Washington Street         | 2.1   | 1.3                 |

**Source:** Caltrans 1998a (CALINE4).

**Notes:**

ppm = parts per million.

See Appendix B.

<sup>a</sup> 8-hour concentrations were obtained by multiplying the 1-hour concentration by a persistence factor of 0.6 (Caltrans 2010).

As shown in Table 10, the maximum CO concentration predicted for the 1-hour averaging period at the studied intersections would be 2.1 parts per million (ppm), which is below the 1-hour CO CAAQS of 20 ppm (CARB 2016b). The maximum predicted 8-hour CO concentration of 1.3 ppm at the studied intersections would be below the 8-hour CO CAAQS of 9 ppm (CARB 2016b). Neither the 1-hour nor 8-hour CAAQS would be equaled or exceeded at any of the intersections studied. Therefore, impact would be less than significant.

### **Health Impacts of Other Criteria Air Pollutants**

Construction and operation of the Project would not result in emissions that exceed SDAPCD's emissions thresholds for any criteria air pollutants. Some VOCs would be associated with motor vehicles and construction equipment, and others would be associated with architectural coatings; the emissions of VOCs would not result in the exceedances of SDAPCD's thresholds. Additionally, SDAPCD Rule 67.0.1 restricts the VOC content of coatings for construction and operational applications.

In addition, VOCs and NO<sub>x</sub> are precursors to O<sub>3</sub>, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by the EPA as a nonattainment area for the 2008 8-hour O<sub>3</sub> NAAQS). The health effects associated with O<sub>3</sub>, as discussed in Section 2.4.1, are generally associated with reduced lung function. The contribution of VOCs and NO<sub>x</sub> to regional ambient O<sub>3</sub> concentrations is the result of complex photochemistry. The increases in O<sub>3</sub> concentrations in the SDAB due to O<sub>3</sub> precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O<sub>3</sub> concentrations would also depend on the time of year that the VOC and NO<sub>x</sub> emissions would occur, because exceedances of the O<sub>3</sub> standards tend to occur April through October, when solar radiation is highest.

The holistic effect of a single project's emissions of O<sub>3</sub> precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, VOC and NO<sub>x</sub> emissions associated with Project construction could minimally contribute to regional O<sub>3</sub> concentrations and the associated health impacts. Due to the minimal contribution during construction and operation (emissions are below the SDAPCD's thresholds), health impacts would be considered less than significant.

Similar to O<sub>3</sub>, construction of the Project would not exceed thresholds for PM<sub>10</sub> or PM<sub>2.5</sub>, and would not contribute to exceedances of the NAAQS or CAAQS for particulate matter. The proposed Project would also not result in substantial DPM emissions during construction or operation, and, therefore, would not result in significant health effects related to DPM exposure. Due to the minimal contribution of particulate matter during construction and operation, Project health impacts would be considered less than significant.

According to the construction emissions analysis, construction of the Project would not contribute to exceedances of the NAAQS or CAAQS for NO<sub>2</sub>. As described in Section 2.4.1, NO<sub>2</sub> and NO<sub>x</sub> health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term, and the Project would be required to comply with SDAPCD Rule 55, which would limit the amount of fugitive dust generated during construction. Additionally, off-road construction equipment would be operating at various portions of the site, and would not be concentrated in one portion of the site at any one time. Construction of the Project would not require any stationary emissions sources that would create substantial, localized NO<sub>x</sub> impacts. NO<sub>x</sub> emissions would not contribute to potential exceedances of the NAAQS or CAAQS for NO<sub>2</sub>. As shown in Table 3, the existing NO<sub>2</sub> concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected that the Project's operational NO<sub>x</sub> emissions would result in exceedances of the NO<sub>2</sub> standards or contribute to the associated health effects. Therefore, health impacts would be considered less than significant.

CO tends to be a localized impact associated with congested intersections. Potential CO hotspots were discussed previously, and the proposed Project's CO emissions would not contribute to significant health effects associated

with this pollutant. PM<sub>10</sub> and PM<sub>2.5</sub> would not contribute to potential exceedances of the NAAQS or CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates. Therefore, health impacts associated with criteria air pollutants would be **less than significant**.

### Mitigation Measures

No mitigation is required.

### Level of Significance After Mitigation

The proposed Project would have a less-than-significant impact without mitigation.

#### **4.4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

The State of California Health and Safety Code, Division 26, Part 4, Chapter 3, Section 41700 and SDAPCD Rule 51, commonly referred to as public nuisance law, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Projects required to obtain permits from the SDAPCD are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SDAPCD Rule 51, Public Nuisance, also prohibits emission of any material that causes nuisance to a considerable number of people, or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are very subjective, and their measurements are difficult to quantify. As a result, this guideline is qualitative, and focuses on existing and potential surrounding uses, and the location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the Project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Additionally, construction equipment would be dispersed throughout the site and equipment use would often be sporadic and non-continuous. Therefore, impacts associated with odors during construction would be less than significant. Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project would not result in the creation of a land use that is commonly associated with odors. Therefore, Project operations would result in an odor impact that is **less than significant**.

### Mitigation Measures

None required.

### Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

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# Appendix A

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## Emissions Calculations



## Palomar Heights - San Diego County APCD Air District, Annual

**Palomar Heights**  
**San Diego County APCD Air District, Annual**

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

| Land Uses                 | Size   | Metric        | Lot Acreage | Floor Surface Area | Population |
|---------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building   | 3.00   | 1000sqft      | 0.07        | 3,000.00           | 0          |
| Parking Lot               | 915.00 | Space         | 7.00        | 366,000.00         | 0          |
| Health Club               | 2.00   | 1000sqft      | 0.05        | 2,000.00           | 0          |
| Quality Restaurant        | 3.00   | 1000sqft      | 0.07        | 3,000.00           | 0          |
| Apartments Mid Rise       | 258.00 | Dwelling Unit | 3.00        | 258,000.00         | 738        |
| Condo/Townhouse High Rise | 162.00 | Dwelling Unit | 2.53        | 162,000.00         | 463        |
| Retirement Community      | 90.00  | Dwelling Unit | 1.00        | 58,000.00          | 257        |
| Strip Mall                | 4.00   | 1000sqft      | 0.09        | 4,000.00           | 0          |

**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<br>(lb/MWhr) | 640.44                   | CH4 Intensity<br>(lb/MWhr) | 0.029 | N2O Intensity<br>(lb/MWhr) | 0.006 |

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

Project Characteristics - The CO2 intensity factor for SDG&E was modified to reflect compliance with the RPS for the operational year.

Land Use - Building square footages were updated to reflect the project specifics.

Construction Phase - The construction scheudle was provided by the project applicant.

Trips and VMT - Construction trip data was provided by the project applicant.

Demolition - Demolition of the existing 392,001 hospital campus.

Grading - model defaults.

Architectural Coating - Compliance with SDAPCD rule 67.0.1

Vehicle Trips - Consistent with traffic report

Woodstoves - No wood fireplaces

Energy Use - Model defaults.

Construction Off-road Equipment Mitigation - Complinace with SDAPCD Fugitive dust rule

Waste Mitigation - 75% Diverson rate in compliance with AB 341

| Table Name              | Column Name                       | Default Value | New Value    |
|-------------------------|-----------------------------------|---------------|--------------|
| tblArchitecturalCoating | ConstArea_Nonresidential_Exterior | 6,000.00      | 3,500.00     |
| tblArchitecturalCoating | ConstArea_Nonresidential_Interior | 18,000.00     | 10,500.00    |
| tblArchitecturalCoating | ConstArea_Residential_Exterior    | 322,650.00    | 343,389.00   |
| tblArchitecturalCoating | ConstArea_Residential_Interior    | 967,950.00    | 1,030,168.00 |
| tblArchitecturalCoating | EF_Nonresidential_Exterior        | 250.00        | 100.00       |
| tblArchitecturalCoating | EF_Nonresidential_Interior        | 250.00        | 50.00        |
| tblArchitecturalCoating | EF_Residential_Exterior           | 250.00        | 100.00       |
| tblArchitecturalCoating | EF_Residential_Interior           | 250.00        | 50.00        |
| tblConstDustMitigation  | WaterUnpavedRoadVehicleSpeed      | 0             | 15           |
| tblConstructionPhase    | NumDays                           | 20.00         | 88.00        |
| tblConstructionPhase    | NumDays                           | 300.00        | 1,129.00     |
| tblConstructionPhase    | NumDays                           | 20.00         | 153.00       |
| tblConstructionPhase    | NumDays                           | 30.00         | 152.00       |
| tblConstructionPhase    | NumDays                           | 20.00         | 65.00        |
| tblConstructionPhase    | NumDays                           | 20.00         | 63.00        |
| tblConstructionPhase    | NumDays                           | 10.00         | 85.00        |
| tblFireplaces           | NumberWood                        | 90.30         | 0.00         |
| tblFireplaces           | NumberWood                        | 56.70         | 0.00         |
| tblFireplaces           | NumberWood                        | 31.50         | 0.00         |

|                           |                    |           |           |
|---------------------------|--------------------|-----------|-----------|
| tblGrading                | MaterialImported   | 0.00      | 15,470.00 |
| tblLandUse                | LandUseSquareFeet  | 90,000.00 | 58,000.00 |
| tblLandUse                | LotAcreage         | 8.23      | 7.00      |
| tblLandUse                | LotAcreage         | 6.79      | 3.00      |
| tblLandUse                | LotAcreage         | 18.00     | 1.00      |
| tblProjectCharacteristics | CO2IntensityFactor | 720.49    | 640.44    |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 525.00    | 526.00    |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 105.00    | 106.00    |
| tblVehicleTrips           | ST_TR              | 6.39      | 6.25      |
| tblVehicleTrips           | ST_TR              | 4.31      | 8.24      |
| tblVehicleTrips           | ST_TR              | 2.46      | 4.46      |
| tblVehicleTrips           | ST_TR              | 20.87     | 0.00      |
| tblVehicleTrips           | ST_TR              | 2.03      | 6.25      |
| tblVehicleTrips           | ST_TR              | 42.04     | 90.11     |
| tblVehicleTrips           | SU_TR              | 5.86      | 5.28      |
| tblVehicleTrips           | SU_TR              | 3.43      | 6.39      |
| tblVehicleTrips           | SU_TR              | 1.05      | 1.90      |
| tblVehicleTrips           | SU_TR              | 26.73     | 0.00      |
| tblVehicleTrips           | SU_TR              | 1.95      | 5.28      |
| tblVehicleTrips           | SU_TR              | 20.43     | 59.80     |
| tblVehicleTrips           | WD_TR              | 6.65      | 6.00      |
| tblVehicleTrips           | WD_TR              | 4.18      | 8.00      |
| tblVehicleTrips           | WD_TR              | 11.03     | 20.00     |
| tblVehicleTrips           | WD_TR              | 32.93     | 0.00      |
| tblVehicleTrips           | WD_TR              | 89.95     | 160.00    |
| tblVehicleTrips           | WD_TR              | 2.40      | 4.00      |
| tblVehicleTrips           | WD_TR              | 44.32     | 130.00    |

## 2.0 Emissions Summary

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### 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     |            |        |        |            |  |
| 2020    | 0.2650  | 2.7968 | 1.7550 | 3.7600e-003 | 0.2204        | 0.1278       | 0.3482     | 0.0364         | 0.1188        | 0.1552      | 0.0000   | 337.7187  | 337.7187   | 0.0799 | 0.0000 | 339.7156   |  |
| 2021    | 0.5166  | 5.6085 | 3.5328 | 7.3800e-003 | 1.4599        | 0.2467       | 1.7066     | 0.7043         | 0.2269        | 0.9312      | 0.0000   | 655.9078  | 655.9078   | 0.1934 | 0.0000 | 660.7436   |  |
| 2022    | 0.4800  | 3.5823 | 4.0795 | 0.0121      | 0.5987        | 0.1144       | 0.7131     | 0.1612         | 0.1074        | 0.2686      | 0.0000   | 1,103.343 | 1,103.3439 | 0.1173 | 0.0000 | 1,106.2762 |  |
| 2023    | 0.4511  | 3.1609 | 3.9389 | 0.0123      | 0.6484        | 0.0961       | 0.7445     | 0.1746         | 0.0903        | 0.2650      | 0.0000   | 1,125.864 | 1,125.8643 | 0.1091 | 0.0000 | 1,128.5910 |  |
| 2024    | 0.4296  | 3.0338 | 3.8497 | 0.0122      | 0.6534        | 0.0854       | 0.7388     | 0.1760         | 0.0803        | 0.2562      | 0.0000   | 1,114.537 | 1,114.5373 | 0.1082 | 0.0000 | 1,117.2430 |  |
| 2025    | 0.4437  | 3.1396 | 4.1941 | 0.0127      | 0.6550        | 0.0870       | 0.7420     | 0.1764         | 0.0815        | 0.2578      | 0.0000   | 1,156.838 | 1,156.8388 | 0.1268 | 0.0000 | 1,160.0086 |  |
| 2026    | 2.3193  | 1.2239 | 1.6553 | 5.2300e-003 | 0.3043        | 0.0327       | 0.3369     | 0.0818         | 0.0309        | 0.1127      | 0.0000   | 478.2365  | 478.2365   | 0.0444 | 0.0000 | 479.3474   |  |
| Maximum | 2.3193  | 5.6085 | 4.1941 | 0.0127      | 1.4599        | 0.2467       | 1.7066     | 0.7043         | 0.2269        | 0.9312      | 0.0000   | 1,156.838 | 1,156.8388 | 0.1934 | 0.0000 | 1,160.0086 |  |

#### Mitigated Construction

|      | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |  |
|------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|--|
| Year | tons/yr |        |        |             |               |              |            |                |               |             |          | MT/yr     |           |        |        |          |  |
| 2020 | 0.2650  | 2.7968 | 1.7550 | 3.7600e-003 | 0.1130        | 0.1278       | 0.2407     | 0.0201         | 0.1188        | 0.1389      | 0.0000   | 337.7184  | 337.7184  | 0.0799 | 0.0000 | 339.7153 |  |
| 2021 | 0.5166  | 5.6085 | 3.5328 | 7.3800e-003 | 0.6751        | 0.2467       | 0.9218     | 0.3218         | 0.2269        | 0.5487      | 0.0000   | 655.9071  | 655.9071  | 0.1934 | 0.0000 | 660.7430 |  |

|         |        |        |        |             |        |        |        |        |        |        |        |                |            |        |        |                |
|---------|--------|--------|--------|-------------|--------|--------|--------|--------|--------|--------|--------|----------------|------------|--------|--------|----------------|
| 2022    | 0.4800 | 3.5823 | 4.0795 | 0.0121      | 0.5987 | 0.1144 | 0.7131 | 0.1612 | 0.1074 | 0.2686 | 0.0000 | 1,103.343<br>5 | 1,103.3435 | 0.1173 | 0.0000 | 1,106.275<br>9 |
| 2023    | 0.4511 | 3.1609 | 3.9389 | 0.0123      | 0.6484 | 0.0961 | 0.7445 | 0.1746 | 0.0903 | 0.2650 | 0.0000 | 1,125.863<br>9 | 1,125.8639 | 0.1091 | 0.0000 | 1,128.590<br>7 |
| 2024    | 0.4296 | 3.0338 | 3.8497 | 0.0122      | 0.6534 | 0.0854 | 0.7388 | 0.1760 | 0.0803 | 0.2562 | 0.0000 | 1,114.536<br>9 | 1,114.5369 | 0.1082 | 0.0000 | 1,117.242<br>6 |
| 2025    | 0.4437 | 3.1396 | 4.1941 | 0.0127      | 0.6550 | 0.0870 | 0.7420 | 0.1764 | 0.0815 | 0.2578 | 0.0000 | 1,156.838<br>4 | 1,156.8384 | 0.1268 | 0.0000 | 1,160.008<br>1 |
| 2026    | 2.3193 | 1.2239 | 1.6553 | 5.2300e-003 | 0.3043 | 0.0327 | 0.3369 | 0.0818 | 0.0309 | 0.1127 | 0.0000 | 478.2363       | 478.2363   | 0.0444 | 0.0000 | 479.3472       |
| Maximum | 2.3193 | 5.6085 | 4.1941 | 0.0127      | 0.6751 | 0.2467 | 0.9218 | 0.3218 | 0.2269 | 0.5487 | 0.0000 | 1,156.838<br>4 | 1,156.8384 | 0.1934 | 0.0000 | 1,160.008<br>1 |

|                   | ROG  | NOx  | 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 | 19.65         | 0.00         | 16.74      | 26.40          | 0.00          | 17.75       | 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       | 6-1-2020   | 8-31-2020  | 1.3128                                       | 1.3128                                     |
| 2       | 9-1-2020   | 11-30-2020 | 1.2995                                       | 1.2995                                     |
| 3       | 12-1-2020  | 2-28-2021  | 1.3186                                       | 1.3186                                     |
| 4       | 3-1-2021   | 5-31-2021  | 1.5601                                       | 1.5601                                     |
| 5       | 6-1-2021   | 8-31-2021  | 1.7533                                       | 1.7533                                     |
| 6       | 9-1-2021   | 11-30-2021 | 1.7403                                       | 1.7403                                     |
| 7       | 12-1-2021  | 2-28-2022  | 0.7464                                       | 0.7464                                     |
| 8       | 3-1-2022   | 5-31-2022  | 1.0424                                       | 1.0424                                     |
| 9       | 6-1-2022   | 8-31-2022  | 1.0386                                       | 1.0386                                     |
| 10      | 9-1-2022   | 11-30-2022 | 1.0348                                       | 1.0348                                     |
| 11      | 12-1-2022  | 2-28-2023  | 0.9424                                       | 0.9424                                     |
| 12      | 3-1-2023   | 5-31-2023  | 0.9108                                       | 0.9108                                     |
| 13      | 6-1-2023   | 8-31-2023  | 0.9072                                       | 0.9072                                     |
| 14      | 9-1-2023   | 11-30-2023 | 0.9044                                       | 0.9044                                     |
| 15      | 12-1-2023  | 2-29-2024  | 0.8788                                       | 0.8788                                     |
| 16      | 3-1-2024   | 5-31-2024  | 0.8667                                       | 0.8667                                     |
| 17      | 6-1-2024   | 8-31-2024  | 0.8633                                       | 0.8633                                     |

|    |           |            |        |        |
|----|-----------|------------|--------|--------|
| 18 | 9-1-2024  | 11-30-2024 | 0.8606 | 0.8606 |
| 19 | 12-1-2024 | 2-28-2025  | 1.0335 | 1.0335 |
| 20 | 3-1-2025  | 5-31-2025  | 0.9208 | 0.9208 |
| 21 | 6-1-2025  | 8-31-2025  | 0.8188 | 0.8188 |
| 22 | 9-1-2025  | 11-30-2025 | 0.8163 | 0.8163 |
| 23 | 12-1-2025 | 2-28-2026  | 1.8487 | 1.8487 |
| 24 | 3-1-2026  | 5-31-2026  | 1.9831 | 1.9831 |
|    |           | Highest    | 1.9831 | 1.9831 |

## 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         | 3.3681        | 0.3114        | 8.5924         | 0.0168        |               | 0.8063        | 0.8063        |                | 0.8063        | 0.8063        | 103.0894        | 227.1380          | 330.2275          | 0.4921        | 4.0500e-003   | 343.7376          |
| Energy       | 0.0256        | 0.2205        | 0.1063         | 1.4000e-003   |               | 0.0177        | 0.0177        |                | 0.0177        | 0.0177        | 0.0000          | 972.1506          | 972.1506          | 0.0374        | 0.0114        | 976.4764          |
| Mobile       | 0.9284        | 3.7849        | 10.7797        | 0.0402        | 3.9341        | 0.0318        | 3.9659        | 1.0533         | 0.0295        | 1.0828        | 0.0000          | 3,723.9067        | 3,723.9067        | 0.1855        | 0.0000        | 3,728.5431        |
| Waste        |               |               |                |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 51.9109         | 0.0000            | 51.9109           | 3.0679        | 0.0000        | 128.6070          |
| Water        |               |               |                |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 11.1315         | 202.3915          | 213.5229          | 1.1525        | 0.0289        | 250.9446          |
| <b>Total</b> | <b>4.3221</b> | <b>4.3168</b> | <b>19.4784</b> | <b>0.0584</b> | <b>3.9341</b> | <b>0.8558</b> | <b>4.7899</b> | <b>1.0533</b>  | <b>0.8536</b> | <b>1.9068</b> | <b>166.1318</b> | <b>5,125.5868</b> | <b>5,291.7185</b> | <b>4.9353</b> | <b>0.0443</b> | <b>5,428.3087</b> |

### **Mitigated Operational**

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

| Category          | tons/yr |        |         |             |               |              |            |                |               |             |          |            | MT/yr      |          |        |             |          |  |
|-------------------|---------|--------|---------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|----------|--------|-------------|----------|--|
|                   | Area    | 3.3681 | 0.3114  | 8.5924      | 0.0168        |              | 0.8063     | 0.8063         |               | 0.8063      | 0.8063   | 103.0894   | 227.1380   | 330.2275 | 0.4921 | 4.0500e-003 | 343.7376 |  |
| Energy            | 0.0256  | 0.2205 | 0.1063  | 1.4000e-003 |               | 0.0177       | 0.0177     |                | 0.0177        | 0.0177      | 0.0000   | 972.1506   | 972.1506   | 0.0374   | 0.0114 | 976.4764    |          |  |
| Mobile            | 0.9284  | 3.7849 | 10.7797 | 0.0402      | 3.9341        | 0.0318       | 3.9659     | 1.0533         | 0.0295        | 1.0828      | 0.0000   | 3,723.9067 | 3,723.9067 | 0.1855   | 0.0000 | 3,728.5431  |          |  |
| Waste             |         |        |         |             |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 12.9777  | 0.0000     | 12.9777    | 0.7670   | 0.0000 | 32.1518     |          |  |
| Water             |         |        |         |             |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 11.1315  | 202.3915   | 213.5229   | 1.1525   | 0.0289 | 250.9446    |          |  |
| Total             | 4.3221  | 4.3168 | 19.4784 | 0.0584      | 3.9341        | 0.8558       | 4.7899     | 1.0533         | 0.8536        | 1.9068      | 127.1986 | 5,125.5868 | 5,252.7854 | 2.6344   | 0.0443 | 5,331.8534  |          |  |
|                   | ROG     | NOx    | 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        | 23.44    | 0.00       | 0.74       | 46.62    | 0.00   | 1.78        |          |  |

### 3.0 Construction Detail

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#### Construction Phase

| Phase Number | Phase Name                            | Phase Type            | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|---------------------------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1            | Demolition                            | Demolition            | 6/1/2020   | 12/30/2020 | 5             | 153      |                   |
| 2            | Site Preparation                      | Site Preparation      | 1/4/2021   | 4/30/2021  | 5             | 85       |                   |
| 3            | Grading                               | Grading               | 5/1/2021   | 11/30/2021 | 5             | 152      |                   |
| 4            | Paving 1 - Internal road construction | Paving                | 11/30/2021 | 2/28/2022  | 5             | 65       |                   |
| 5            | Building Construction                 | Building Construction | 2/1/2022   | 5/29/2026  | 5             | 1129     |                   |
| 6            | Paving 2 - paved areas                | Paving                | 1/1/2025   | 3/28/2025  | 5             | 63       |                   |
| 7            | Architectural Coating                 | Architectural Coating | 1/1/2026   | 5/5/2026   | 5             | 88       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 380

Acres of Paving: 7

Residential Indoor: 1,030,168; Residential Outdoor: 343,389; Non-Residential Indoor: 10,500; Non-Residential Outdoor: 3,500; Striped

## OffRoad Equipment

| Phase Name                            | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|---------------------------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition                            | Concrete/Industrial Saws  | 1      | 8.00        | 81          | 0.73        |
| Demolition                            | Excavators                | 3      | 8.00        | 158         | 0.38        |
| Demolition                            | Rubber Tired Dozers       | 2      | 8.00        | 247         | 0.40        |
| Site Preparation                      | Rubber Tired Dozers       | 3      | 8.00        | 247         | 0.40        |
| Site Preparation                      | Tractors/Loaders/Backhoes | 4      | 8.00        | 97          | 0.37        |
| Grading                               | Excavators                | 2      | 8.00        | 158         | 0.38        |
| Grading                               | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Grading                               | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading                               | Scrapers                  | 2      | 8.00        | 367         | 0.48        |
| Grading                               | Tractors/Loaders/Backhoes | 2      | 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 1 - Internal road construction | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving 1 - Internal road construction | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving 1 - Internal road construction | Rollers                   | 2      | 8.00        | 80          | 0.38        |
| Paving 2 - paved areas                | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving 2 - paved areas                | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving 2 - paved areas                | 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 |
|------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition       | 6                       | 16.00              | 0.00               | 1,783.00            | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation | 7                       | 18.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

|   |   |        |        |          |       |      |       |        |         |      |
|---|---|--------|--------|----------|-------|------|-------|--------|---------|------|
| Grading   | 8 | 20.00  | 0.00   | 1,530.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction                             | 9 | 526.00 | 116.00 | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving 1 - Internal<br>road construction<br>areas | 6 | 16.00  | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving 2 - paved                                  | 6 | 16.00  | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating                             | 1 | 106.00 | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

### 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

|               | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |
|---------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|
| Category      | tons/yr |        |        |             |               |              |            |                |               |             |          | MT/yr     |           |        |        |          |
| Fugitive Dust |         |        |        |             | 0.1953        | 0.0000       | 0.1953     | 0.0296         | 0.0000        | 0.0296      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Off-Road      | 0.2534  | 2.5399 | 1.6641 | 2.9700e-003 |               | 0.1269       | 0.1269     |                | 0.1180        | 0.1180      | 0.0000   | 260.0893  | 260.0893  | 0.0734 | 0.0000 | 261.9249 |
| Total         | 0.2534  | 2.5399 | 1.6641 | 2.9700e-003 | 0.1953        | 0.1269       | 0.3222     | 0.0296         | 0.1180        | 0.1475      | 0.0000   | 260.0893  | 260.0893  | 0.0734 | 0.0000 | 261.9249 |

#### 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  | 7.1300e-003 | 0.2536 | 0.0581 | 6.9000e-004 | 0.0153        | 8.0000e-004  | 0.0161     | 4.1900e-003    | 7.7000e-004   | 4.9600e-003 | 0.0000   | 68.7568   | 68.7568   | 6.1900e-003 | 0.0000 | 68.9116 |

|        |             |             |        |             |             |             |             |             |             |             |        |         |         |             |        |         |        |
|--------|-------------|-------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|---------|---------|-------------|--------|---------|--------|
| Vendor | 0.0000      | 0.0000      | 0.0000 | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000 | 0.0000  | 0.0000  | 0.0000      | 0.0000 | 0.0000  | 0.0000 |
| Worker | 4.5100e-003 | 3.3400e-003 | 0.0328 | 1.0000e-004 | 9.8200e-003 | 7.0000e-005 | 9.8900e-003 | 2.6100e-003 | 7.0000e-005 | 2.6700e-003 | 0.0000 | 8.8725  | 8.8725  | 2.7000e-004 | 0.0000 | 8.8791  |        |
| Total  | 0.0116      | 0.2569      | 0.0908 | 7.9000e-004 | 0.0251      | 8.7000e-004 | 0.0260      | 6.8000e-003 | 8.4000e-004 | 7.6300e-003 | 0.0000 | 77.6293 | 77.6293 | 6.4600e-003 | 0.0000 | 77.7908 |        |

### 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 |         |        |        |             | 0.0879        | 0.0000       | 0.0879     | 0.0133         | 0.0000        | 0.0133      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Off-Road      | 0.2534  | 2.5399 | 1.6641 | 2.9700e-003 |               | 0.1269       | 0.1269     |                | 0.1180        | 0.1180      | 0.0000   | 260.0890  | 260.0890  | 0.0734 | 0.0000 | 261.9246 |
| Total         | 0.2534  | 2.5399 | 1.6641 | 2.9700e-003 | 0.0879        | 0.1269       | 0.2148     | 0.0133         | 0.1180        | 0.1313      | 0.0000   | 260.0890  | 260.0890  | 0.0734 | 0.0000 | 261.9246 |

### 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  | 7.1300e-003 | 0.2536      | 0.0581 | 6.9000e-004 | 0.0153        | 8.0000e-004  | 0.0161      | 4.1900e-003    | 7.7000e-004   | 4.9600e-003 | 0.0000   | 68.7568   | 68.7568   | 6.1900e-003 | 0.0000 | 68.9116 |
| 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   | 4.5100e-003 | 3.3400e-003 | 0.0328 | 1.0000e-004 | 9.8200e-003   | 7.0000e-005  | 9.8900e-003 | 2.6100e-003    | 7.0000e-005   | 2.6700e-003 | 0.0000   | 8.8725    | 8.8725    | 2.7000e-004 | 0.0000 | 8.8791  |
| Total    | 0.0116      | 0.2569      | 0.0908 | 7.9000e-004 | 0.0251        | 8.7000e-004  | 0.0260      | 6.8000e-003    | 8.4000e-004   | 7.6300e-003 | 0.0000   | 77.6293   | 77.6293   | 6.4600e-003 | 0.0000 | 77.7908 |

### **3.3 Site Preparation - 2021**

## **Unmitigated Construction On-Site**

|               | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category      | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
| Fugitive Dust |               |               |               |                    | 0.7678        | 0.0000        | 0.7678        | 0.4221         | 0.0000        | 0.4221        | 0.0000        | 0.0000          | 0.0000          | 0.0000        | 0.0000        | 0.0000          |
| Off-Road      | 0.1653        | 1.7211        | 0.8991        | 1.6200e-003        |               | 0.0869        | 0.0869        |                | 0.0799        | 0.0799        | 0.0000        | 142.1018        | 142.1018        | 0.0460        | 0.0000        | 143.2508        |
| <b>Total</b>  | <b>0.1653</b> | <b>1.7211</b> | <b>0.8991</b> | <b>1.6200e-003</b> | <b>0.7678</b> | <b>0.0869</b> | <b>0.8547</b> | <b>0.4221</b>  | <b>0.0799</b> | <b>0.5020</b> | <b>0.0000</b> | <b>142.1018</b> | <b>142.1018</b> | <b>0.0460</b> | <b>0.0000</b> | <b>143.2508</b> |

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

|          | ROG         | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e   |
|----------|-------------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | tons/yr     |             |        |             |               |              |             |                |               |             | MT/yr    |           |           |             |        |        |
| Hauling  | 0.0000      | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 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   | 2.6600e-003 | 1.9000e-003 | 0.0191 | 6.0000e-005 | 6.1300e-003   | 4.0000e-005  | 6.1800e-003 | 1.6300e-003    | 4.0000e-005   | 1.6700e-003 | 0.0000   | 5.3590    | 5.3590    | 1.5000e-004 | 0.0000 | 5.3628 |
| Total    | 2.6600e-003 | 1.9000e-003 | 0.0191 | 6.0000e-005 | 6.1300e-003   | 4.0000e-005  | 6.1800e-003 | 1.6300e-003    | 4.0000e-005   | 1.6700e-003 | 0.0000   | 5.3590    | 5.3590    | 1.5000e-004 | 0.0000 | 5.3628 |

## **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 |        |        |             | 0.3455 | 0.0000 | 0.3455 | 0.1899 | 0.0000 | 0.1899 | 0.0000 | 0.0000   | 0.0000   | 0.0000 | 0.0000 | 0.0000   | 0.0000 | 0.0000 |
| Off-Road | 0.1653        | 1.7211 | 0.8991 | 1.6200e-003 |        | 0.0869 | 0.0869 |        | 0.0799 | 0.0799 | 0.0000 | 142.1016 | 142.1016 | 0.0460 | 0.0000 | 143.2506 |        |        |
| Total    | 0.1653        | 1.7211 | 0.8991 | 1.6200e-003 | 0.3455 | 0.0869 | 0.4324 | 0.1899 | 0.0799 | 0.2699 | 0.0000 | 142.1016 | 142.1016 | 0.0460 | 0.0000 | 143.2506 |        |        |

### Mitigated Construction Off-Site

|          | ROG         | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e   |        |
|----------|-------------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|--------|
| Category | tons/yr     |             |        |             |               |              |             |                |               |             | MT/yr    |           |           |             |        |        |        |
| Hauling  | 0.0000      | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000      | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 2.6600e-003 | 1.9000e-003 | 0.0191 | 6.0000e-005 | 6.1300e-003   | 4.0000e-005  | 6.1800e-003 | 1.6300e-003    | 4.0000e-005   | 1.6700e-003 | 0.0000   | 5.3590    | 5.3590    | 1.5000e-004 | 0.0000 | 5.3628 |        |
| Total    | 2.6600e-003 | 1.9000e-003 | 0.0191 | 6.0000e-005 | 6.1300e-003   | 4.0000e-005  | 6.1800e-003 | 1.6300e-003    | 4.0000e-005   | 1.6700e-003 | 0.0000   | 5.3590    | 5.3590    | 1.5000e-004 | 0.0000 | 5.3628 |        |

### **3.4 Grading - 2021**

#### Unmitigated Construction On-Site

|               | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |        |
|---------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|--------|
| Category      | tons/yr |        |        |             |               |              |            |                |               |             | MT/yr    |           |           |        |        |          |        |
| Fugitive Dust |         |        |        |             | 0.6592        | 0.0000       | 0.6592     | 0.2733         | 0.0000        | 0.2733      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   | 0.0000 |
| Off-Road      | 0.3185  | 3.5264 | 2.3468 | 4.7100e-003 |               | 0.1509       | 0.1509     |                | 0.1388        | 0.1388      | 0.0000   | 414.1619  | 414.1619  | 0.1340 | 0.0000 | 417.5106 |        |

|       |        |        |        |             |        |        |        |        |        |        |        |          |          |        |        |          |
|-------|--------|--------|--------|-------------|--------|--------|--------|--------|--------|--------|--------|----------|----------|--------|--------|----------|
| Total | 0.3185 | 3.5264 | 2.3468 | 4.7100e-003 | 0.6592 | 0.1509 | 0.8101 | 0.2733 | 0.1388 | 0.4121 | 0.0000 | 414.1619 | 414.1619 | 0.1340 | 0.0000 | 417.5106 |
|-------|--------|--------|--------|-------------|--------|--------|--------|--------|--------|--------|--------|----------|----------|--------|--------|----------|

### 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  | 5.7500e-003 | 0.1998      | 0.0493 | 5.9000e-004 | 0.0131        | 6.0000e-004  | 0.0137     | 3.6000e-003    | 5.8000e-004   | 4.1700e-003 | 0.0000   | 58.2640   | 58.2640   | 5.2600e-003 | 0.0000 | 58.3955 |
| Vendor   | 0.0000      | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000  |
| Worker   | 5.2800e-003 | 3.7700e-003 | 0.0380 | 1.2000e-004 | 0.0122        | 9.0000e-005  | 0.0123     | 3.2400e-003    | 8.0000e-005   | 3.3200e-003 | 0.0000   | 10.6479   | 10.6479   | 3.1000e-004 | 0.0000 | 10.6556 |
| Total    | 0.0110      | 0.2036      | 0.0873 | 7.1000e-004 | 0.0253        | 6.9000e-004  | 0.0260     | 6.8400e-003    | 6.6000e-004   | 7.4900e-003 | 0.0000   | 68.9120   | 68.9120   | 5.5700e-003 | 0.0000 | 69.0511 |

### 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 |         |        |        |             | 0.2966        | 0.0000       | 0.2966     | 0.1230         | 0.0000        | 0.1230      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Off-Road      | 0.3185  | 3.5264 | 2.3468 | 4.7100e-003 |               | 0.1509       | 0.1509     |                | 0.1388        | 0.1388      | 0.0000   | 414.1614  | 414.1614  | 0.1340 | 0.0000 | 417.5101 |
| Total         | 0.3185  | 3.5264 | 2.3468 | 4.7100e-003 | 0.2966        | 0.1509       | 0.4475     | 0.1230         | 0.1388        | 0.2618      | 0.0000   | 414.1614  | 414.1614  | 0.1340 | 0.0000 | 417.5101 |

### 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  | 5.7500e-003 | 0.1998      | 0.0493 | 5.9000e-004 | 0.0131        | 6.0000e-004  | 0.0137     | 3.6000e-003    | 5.8000e-004   | 4.1700e-003 | 0.0000   | 58.2640   | 58.2640   | 5.2600e-003 | 0.0000 | 58.3955 |  |  |
| Vendor   | 0.0000      | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000  |  |  |
| Worker   | 5.2800e-003 | 3.7700e-003 | 0.0380 | 1.2000e-004 | 0.0122        | 9.0000e-005  | 0.0123     | 3.2400e-003    | 8.0000e-005   | 3.3200e-003 | 0.0000   | 10.6479   | 10.6479   | 3.1000e-004 | 0.0000 | 10.6556 |  |  |
| Total    | 0.0110      | 0.2036      | 0.0873 | 7.1000e-004 | 0.0253        | 6.9000e-004  | 0.0260     | 6.8400e-003    | 6.6000e-004   | 7.4900e-003 | 0.0000   | 68.9120   | 68.9120   | 5.5700e-003 | 0.0000 | 69.0511 |  |  |

### 3.5 Paving 1 - Internal road construction - 2021

#### Unmitigated Construction On-Site

|          | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e    |  |  |
|----------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|---------|--|--|
| Category | tons/yr     |        |        |             |               |              |             |                |               |             |          |           | MT/yr     |             |        |         |  |  |
| Off-Road | 0.0151      | 0.1550 | 0.1758 | 2.7000e-004 |               | 8.1300e-003  | 8.1300e-003 |                | 7.4800e-003   | 7.4800e-003 | 0.0000   | 24.0282   | 24.0282   | 7.7700e-003 | 0.0000 | 24.2225 |  |  |
| Paving   | 3.3900e-003 |        |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000  |  |  |
| Total    | 0.0185      | 0.1550 | 0.1758 | 2.7000e-004 |               | 8.1300e-003  | 8.1300e-003 |                | 7.4800e-003   | 7.4800e-003 | 0.0000   | 24.0282   | 24.0282   | 7.7700e-003 | 0.0000 | 24.2225 |  |  |

#### Unmitigated Construction Off-Site

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

|         |             |             |             |             |             |             |             |             |             |             |        |        |        |             |        |        |        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|--------|--------|-------------|--------|--------|--------|
| Hauling | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000 |
| Vendor  | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000 |
| Worker  | 6.7000e-004 | 4.8000e-004 | 4.8000e-003 | 1.0000e-005 | 1.5400e-003 | 1.0000e-005 | 1.5500e-003 | 4.1000e-004 | 1.0000e-005 | 4.2000e-004 | 0.0000 | 1.3450 | 1.3450 | 4.0000e-005 | 0.0000 | 1.3460 |        |
| Total   | 6.7000e-004 | 4.8000e-004 | 4.8000e-003 | 1.0000e-005 | 1.5400e-003 | 1.0000e-005 | 1.5500e-003 | 4.1000e-004 | 1.0000e-005 | 4.2000e-004 | 0.0000 | 1.3450 | 1.3450 | 4.0000e-005 | 0.0000 | 1.3460 |        |

### 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 | 0.0151      | 0.1550 | 0.1758 | 2.7000e-004 |               | 8.1300e-003  | 8.1300e-003 |                | 7.4800e-003   | 7.4800e-003 | 0.0000   | 24.0282   | 24.0282   | 7.7700e-003 | 0.0000 | 24.2224 |  |
| Paving   | 3.3900e-003 |        |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000  |  |
| Total    | 0.0185      | 0.1550 | 0.1758 | 2.7000e-004 |               | 8.1300e-003  | 8.1300e-003 |                | 7.4800e-003   | 7.4800e-003 | 0.0000   | 24.0282   | 24.0282   | 7.7700e-003 | 0.0000 | 24.2224 |  |

### Mitigated Construction Off-Site

|          | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e   |  |
|----------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|--|
| Category | tons/yr     |             |             |             |               |              |             |                |               |             |          | MT/yr     |           |             |        |        |  |
| Hauling  | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 |  |
| Vendor   | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 |  |
| Worker   | 6.7000e-004 | 4.8000e-004 | 4.8000e-003 | 1.0000e-005 | 1.5400e-003   | 1.0000e-005  | 1.5500e-003 | 4.1000e-004    | 1.0000e-005   | 4.2000e-004 | 0.0000   | 1.3450    | 1.3450    | 4.0000e-005 | 0.0000 | 1.3460 |  |
| Total    | 6.7000e-004 | 4.8000e-004 | 4.8000e-003 | 1.0000e-005 | 1.5400e-003   | 1.0000e-005  | 1.5500e-003 | 4.1000e-004    | 1.0000e-005   | 4.2000e-004 | 0.0000   | 1.3450    | 1.3450    | 4.0000e-005 | 0.0000 | 1.3460 |  |

### 3.5 Paving 1 - Internal road construction - 2022

#### Unmitigated Construction On-Site

|          | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e    |  |
|----------|-------------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|---------|--|
| Category | tons/yr     |        |        |             |               |              |            |                |               |             |          | MT/yr     |           |        |        |         |  |
| Off-Road | 0.0226      | 0.2281 | 0.2989 | 4.7000e-004 |               | 0.0116       | 0.0116     |                | 0.0107        | 0.0107      | 0.0000   | 41.0565   | 41.0565   | 0.0133 | 0.0000 | 41.3885 |  |
| Paving   | 5.7800e-003 |        |        |             |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000  |  |
| Total    | 0.0284      | 0.2281 | 0.2989 | 4.7000e-004 |               | 0.0116       | 0.0116     |                | 0.0107        | 0.0107      | 0.0000   | 41.0565   | 41.0565   | 0.0133 | 0.0000 | 41.3885 |  |

#### 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   | 1.0800e-003 | 7.4000e-004 | 7.6100e-003 | 2.0000e-005 | 2.6300e-003   | 2.0000e-005  | 2.6500e-003 | 7.0000e-004    | 2.0000e-005   | 7.2000e-004 | 0.0000   | 2.2135    | 2.2135    | 6.0000e-005 | 0.0000 | 2.2150 |  |
| Total    | 1.0800e-003 | 7.4000e-004 | 7.6100e-003 | 2.0000e-005 | 2.6300e-003   | 2.0000e-005  | 2.6500e-003 | 7.0000e-004    | 2.0000e-005   | 7.2000e-004 | 0.0000   | 2.2135    | 2.2135    | 6.0000e-005 | 0.0000 | 2.2150 |  |

#### 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 | 0.0226      | 0.2281 | 0.2989 | 4.7000e-004 |               | 0.0116       | 0.0116     |                | 0.0107        | 0.0107      | 0.0000   | 41.0564   | 41.0564   | 0.0133 | 0.0000 | 41.3884 |  |
| Paving   | 5.7800e-003 |        |        |             |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000  |  |
| Total    | 0.0284      | 0.2281 | 0.2989 | 4.7000e-004 |               | 0.0116       | 0.0116     |                | 0.0107        | 0.0107      | 0.0000   | 41.0564   | 41.0564   | 0.0133 | 0.0000 | 41.3884 |  |

### 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   | 1.0800e-003 | 7.4000e-004 | 7.6100e-003 | 2.0000e-005 | 2.6300e-003   | 2.0000e-005  | 2.6500e-003 | 7.0000e-004    | 2.0000e-005   | 7.2000e-004 | 0.0000   | 2.2135    | 2.2135    | 6.0000e-005 | 0.0000 | 2.2150 |  |
| Total    | 1.0800e-003 | 7.4000e-004 | 7.6100e-003 | 2.0000e-005 | 2.6300e-003   | 2.0000e-005  | 2.6500e-003 | 7.0000e-004    | 2.0000e-005   | 7.2000e-004 | 0.0000   | 2.2135    | 2.2135    | 6.0000e-005 | 0.0000 | 2.2150 |  |

### **3.6 Building Construction - 2022**

#### Unmitigated Construction On-Site

|          | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |  |
|----------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|--|
| Category | tons/yr |        |        |             |               |              |            |                |               |             |          | MT/yr     |           |        |        |          |  |
| Off-Road | 0.2039  | 1.8661 | 1.9554 | 3.2200e-003 |               | 0.0967       | 0.0967     |                | 0.0910        | 0.0910      | 0.0000   | 276.9117  | 276.9117  | 0.0663 | 0.0000 | 278.5702 |  |

|       |        |        |        |             |  |        |        |  |        |        |        |          |          |        |        |          |
|-------|--------|--------|--------|-------------|--|--------|--------|--|--------|--------|--------|----------|----------|--------|--------|----------|
| Total | 0.2039 | 1.8661 | 1.9554 | 3.2200e-003 |  | 0.0967 | 0.0967 |  | 0.0910 | 0.0910 | 0.0000 | 276.9117 | 276.9117 | 0.0663 | 0.0000 | 278.5702 |
|-------|--------|--------|--------|-------------|--|--------|--------|--|--------|--------|--------|----------|----------|--------|--------|----------|

### 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 |          |
| Vendor   | 0.0399  | 1.3453 | 0.3597 | 3.6700e-003 | 0.0920        | 2.6000e-003  | 0.0946     | 0.0266         | 2.4800e-003   | 0.0291      | 0.0000   | 358.9762  | 358.9762  | 0.0261 | 0.0000 | 359.6276 |
| Worker   | 0.2068  | 0.1421 | 1.4579 | 4.6900e-003 | 0.5041        | 3.4900e-003  | 0.5076     | 0.1339         | 3.2100e-003   | 0.1372      | 0.0000   | 424.1861  | 424.1861  | 0.0116 | 0.0000 | 424.4751 |
| Total    | 0.2466  | 1.4874 | 1.8176 | 8.3600e-003 | 0.5961        | 6.0900e-003  | 0.6022     | 0.1605         | 5.6900e-003   | 0.1662      | 0.0000   | 783.1622  | 783.1622  | 0.0376 | 0.0000 | 784.1026 |

### 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 | 0.2039  | 1.8661 | 1.9554 | 3.2200e-003 |               | 0.0967       | 0.0967     |                | 0.0910        | 0.0910      | 0.0000   | 276.9113  | 276.9113  | 0.0663 | 0.0000 | 278.5698 |
| Total    | 0.2039  | 1.8661 | 1.9554 | 3.2200e-003 |               | 0.0967       | 0.0967     |                | 0.0910        | 0.0910      | 0.0000   | 276.9113  | 276.9113  | 0.0663 | 0.0000 | 278.5698 |

### 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   | 0.0399  | 1.3453 | 0.3597 | 3.6700e-003 | 0.0920        | 2.6000e-003  | 0.0946     | 0.0266         | 2.4800e-003   | 0.0291      | 0.0000   | 358.9762  | 358.9762  | 0.0261 | 0.0000 | 359.6276 |  |
| Worker   | 0.2068  | 0.1421 | 1.4579 | 4.6900e-003 | 0.5041        | 3.4900e-003  | 0.5076     | 0.1339         | 3.2100e-003   | 0.1372      | 0.0000   | 424.1861  | 424.1861  | 0.0116 | 0.0000 | 424.4751 |  |
| Total    | 0.2466  | 1.4874 | 1.8176 | 8.3600e-003 | 0.5961        | 6.0900e-003  | 0.6022     | 0.1605         | 5.6900e-003   | 0.1662      | 0.0000   | 783.1622  | 783.1622  | 0.0376 | 0.0000 | 784.1026 |  |

### 3.6 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 | 0.2045  | 1.8700 | 2.1117 | 3.5000e-003 |               | 0.0910       | 0.0910     |                | 0.0856        | 0.0856      | 0.0000   | 301.3462  | 301.3462  | 0.0717 | 0.0000 | 303.1383 |
| Total    | 0.2045  | 1.8700 | 2.1117 | 3.5000e-003 |               | 0.0910       | 0.0910     |                | 0.0856        | 0.0856      | 0.0000   | 301.3462  | 301.3462  | 0.0717 | 0.0000 | 303.1383 |

#### Unmitigated Construction Off-Site

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

|         |        |        |        |             |        |             |        |        |             |        |        |          |          |        |        |          |        |
|---------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|--------|----------|----------|--------|--------|----------|--------|
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000   | 0.0000   | 0.0000 | 0.0000 | 0.0000   | 0.0000 |
| Vendor  | 0.0335 | 1.1497 | 0.3563 | 3.8900e-003 | 0.1001 | 1.3800e-003 | 0.1015 | 0.0289 | 1.3200e-003 | 0.0302 | 0.0000 | 380.6872 | 380.6872 | 0.0259 | 0.0000 | 381.3343 |        |
| Worker  | 0.2132 | 0.1412 | 1.4709 | 4.9100e-003 | 0.5484 | 3.7200e-003 | 0.5521 | 0.1457 | 3.4300e-003 | 0.1491 | 0.0000 | 443.8309 | 443.8309 | 0.0115 | 0.0000 | 444.1184 |        |
| Total   | 0.2467 | 1.2908 | 1.8272 | 8.8000e-003 | 0.6484 | 5.1000e-003 | 0.6535 | 0.1746 | 4.7500e-003 | 0.1794 | 0.0000 | 824.5181 | 824.5181 | 0.0374 | 0.0000 | 825.4527 |        |

### 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 | 0.2045  | 1.8700 | 2.1117 | 3.5000e-003 |               | 0.0910       | 0.0910     |                | 0.0856        | 0.0856      | 0.0000   | 301.3458  | 301.3458  | 0.0717 | 0.0000 | 303.1380 |
| Total    | 0.2045  | 1.8700 | 2.1117 | 3.5000e-003 |               | 0.0910       | 0.0910     |                | 0.0856        | 0.0856      | 0.0000   | 301.3458  | 301.3458  | 0.0717 | 0.0000 | 303.1380 |

### 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   | 0.0335  | 1.1497 | 0.3563 | 3.8900e-003 | 0.1001        | 1.3800e-003  | 0.1015     | 0.0289         | 1.3200e-003   | 0.0302      | 0.0000   | 380.6872  | 380.6872  | 0.0259 | 0.0000 | 381.3343 |
| Worker   | 0.2132  | 0.1412 | 1.4709 | 4.9100e-003 | 0.5484        | 3.7200e-003  | 0.5521     | 0.1457         | 3.4300e-003   | 0.1491      | 0.0000   | 443.8309  | 443.8309  | 0.0115 | 0.0000 | 444.1184 |
| Total    | 0.2467  | 1.2908 | 1.8272 | 8.8000e-003 | 0.6484        | 5.1000e-003  | 0.6535     | 0.1746         | 4.7500e-003   | 0.1794      | 0.0000   | 824.5181  | 824.5181  | 0.0374 | 0.0000 | 825.4527 |

### 3.6 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 | 0.1928  | 1.7611 | 2.1179 | 3.5300e-003 |               | 0.0803       | 0.0803     |                | 0.0756        | 0.0756      | 0.0000   | 303.7223  | 303.7223  | 0.0718 | 0.0000 | 305.5179 |  |
| Total    | 0.1928  | 1.7611 | 2.1179 | 3.5300e-003 |               | 0.0803       | 0.0803     |                | 0.0756        | 0.0756      | 0.0000   | 303.7223  | 303.7223  | 0.0718 | 0.0000 | 305.5179 |  |

#### 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   | 0.0325  | 1.1422 | 0.3477 | 3.8900e-003 | 0.1009        | 1.3500e-003  | 0.1022     | 0.0291         | 1.2900e-003   | 0.0304      | 0.0000   | 381.1773  | 381.1773  | 0.0258 | 0.0000 | 381.8214 |  |
| Worker   | 0.2043  | 0.1305 | 1.3842 | 4.7500e-003 | 0.5526        | 3.6800e-003  | 0.5563     | 0.1468         | 3.3900e-003   | 0.1502      | 0.0000   | 429.6376  | 429.6376  | 0.0106 | 0.0000 | 429.9037 |  |
| Total    | 0.2368  | 1.2727 | 1.7319 | 8.6400e-003 | 0.6534        | 5.0300e-003  | 0.6585     | 0.1760         | 4.6800e-003   | 0.1806      | 0.0000   | 810.8149  | 810.8149  | 0.0364 | 0.0000 | 811.7251 |  |

#### 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     | 0.1928        | 1.7611        | 2.1179        | 3.5300e-003        |               | 0.0803        | 0.0803        |                | 0.0756        | 0.0756        | 0.0000        | 303.7220        | 303.7220        | 0.0718        | 0.0000        | 305.5175        |  |
| <b>Total</b> | <b>0.1928</b> | <b>1.7611</b> | <b>2.1179</b> | <b>3.5300e-003</b> |               | <b>0.0803</b> | <b>0.0803</b> |                | <b>0.0756</b> | <b>0.0756</b> | <b>0.0000</b> | <b>303.7220</b> | <b>303.7220</b> | <b>0.0718</b> | <b>0.0000</b> | <b>305.5175</b> |  |

### Mitigated Construction Off-Site

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |  |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|--|
| Category     | tons/yr       |               |               |                    |               |                    |               |                |                    |               | MT/yr         |                 |                 |               |               |                 |  |
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000        | 0.0000          | 0.0000          | 0.0000        | 0.0000        | 0.0000          |  |
| Vendor       | 0.0325        | 1.1422        | 0.3477        | 3.8900e-003        | 0.1009        | 1.3500e-003        | 0.1022        | 0.0291         | 1.2900e-003        | 0.0304        | 0.0000        | 381.1773        | 381.1773        | 0.0258        | 0.0000        | 381.8214        |  |
| Worker       | 0.2043        | 0.1305        | 1.3842        | 4.7500e-003        | 0.5526        | 3.6800e-003        | 0.5563        | 0.1468         | 3.3900e-003        | 0.1502        | 0.0000        | 429.6376        | 429.6376        | 0.0106        | 0.0000        | 429.9037        |  |
| <b>Total</b> | <b>0.2368</b> | <b>1.2727</b> | <b>1.7319</b> | <b>8.6400e-003</b> | <b>0.6534</b> | <b>5.0300e-003</b> | <b>0.6585</b> | <b>0.1760</b>  | <b>4.6800e-003</b> | <b>0.1806</b> | <b>0.0000</b> | <b>810.8149</b> | <b>810.8149</b> | <b>0.0364</b> | <b>0.0000</b> | <b>811.7251</b> |  |

### **3.6 Building Construction - 2025**

#### 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 | 0.1785  | 1.6273 | 2.0991 | 3.5200e-003 |               | 0.0689       | 0.0689     |                | 0.0648        | 0.0648      | 0.0000   | 302.6549  | 302.6549  | 0.0711 | 0.0000 | 304.4335 |  |

|       |        |        |        |             |  |        |        |  |        |        |        |          |          |        |        |          |
|-------|--------|--------|--------|-------------|--|--------|--------|--|--------|--------|--------|----------|----------|--------|--------|----------|
| Total | 0.1785 | 1.6273 | 2.0991 | 3.5200e-003 |  | 0.0689 | 0.0689 |  | 0.0648 | 0.0648 | 0.0000 | 302.6549 | 302.6549 | 0.0711 | 0.0000 | 304.4335 |
|-------|--------|--------|--------|-------------|--|--------|--------|--|--------|--------|--------|----------|----------|--------|--------|----------|

### 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 |          |
| Vendor   | 0.0314  | 1.1213 | 0.3393 | 3.8400e-003 | 0.1005        | 1.3100e-003  | 0.1018     | 0.0290         | 1.2500e-003   | 0.0303      | 0.0000   | 377.4124  | 377.4124  | 0.0254      | 0.0000 | 378.0472 |
| Worker   | 0.1944  | 0.1198 | 1.2870 | 4.5400e-003 | 0.5505        | 3.6100e-003  | 0.5541     | 0.1463         | 3.3200e-003   | 0.1496      | 0.0000   | 410.6954  | 410.6954  | 9.7900e-003 | 0.0000 | 410.9401 |
| Total    | 0.2258  | 1.2411 | 1.6264 | 8.3800e-003 | 0.6509        | 4.9200e-003  | 0.6559     | 0.1753         | 4.5700e-003   | 0.1799      | 0.0000   | 788.1078  | 788.1078  | 0.0352      | 0.0000 | 788.9873 |

### 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 | 0.1784  | 1.6273 | 2.0991 | 3.5200e-003 |               | 0.0689       | 0.0689     |                | 0.0648        | 0.0648      | 0.0000   | 302.6545  | 302.6545  | 0.0711 | 0.0000 | 304.4331 |
| Total    | 0.1784  | 1.6273 | 2.0991 | 3.5200e-003 |               | 0.0689       | 0.0689     |                | 0.0648        | 0.0648      | 0.0000   | 302.6545  | 302.6545  | 0.0711 | 0.0000 | 304.4331 |

### 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   | 0.0314  | 1.1213 | 0.3393 | 3.8400e-003 | 0.1005        | 1.3100e-003  | 0.1018     | 0.0290         | 1.2500e-003   | 0.0303      | 0.0000   | 377.4124  | 377.4124  | 0.0254      | 0.0000 | 378.0472 |  |
| Worker   | 0.1944  | 0.1198 | 1.2870 | 4.5400e-003 | 0.5505        | 3.6100e-003  | 0.5541     | 0.1463         | 3.3200e-003   | 0.1496      | 0.0000   | 410.6954  | 410.6954  | 9.7900e-003 | 0.0000 | 410.9401 |  |
| Total    | 0.2258  | 1.2411 | 1.6264 | 8.3800e-003 | 0.6509        | 4.9200e-003  | 0.6559     | 0.1753         | 4.5700e-003   | 0.1799      | 0.0000   | 788.1078  | 788.1078  | 0.0352      | 0.0000 | 788.9873 |  |

### 3.6 Building Construction - 2026

#### 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 | 0.0732  | 0.6671 | 0.8605 | 1.4400e-003 |               | 0.0282       | 0.0282     |                | 0.0266        | 0.0266      | 0.0000   | 124.0769  | 124.0769  | 0.0292 | 0.0000 | 124.8061 |  |
| Total    | 0.0732  | 0.6671 | 0.8605 | 1.4400e-003 |               | 0.0282       | 0.0282     |                | 0.0266        | 0.0266      | 0.0000   | 124.0769  | 124.0769  | 0.0292 | 0.0000 | 124.8061 |  |

#### Unmitigated Construction Off-Site

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

|         |               |               |               |                    |               |                    |               |               |                    |               |               |                 |                 |               |               |                 |          |
|---------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|----------|
| Hauling | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000          | 0.0000          | 0.0000        | 0.0000        | 0.0000          | 0.0000   |
| Vendor  | 0.0126        | 0.4531        | 0.1371        | 1.5600e-003        | 0.0412        | 5.2000e-004        | 0.0417        | 0.0119        | 5.0000e-004        | 0.0124        | 0.0000        | 153.8389        | 153.8389        | 0.0103        | 0.0000        | 0.0000          | 154.0965 |
| Worker  | 0.0764        | 0.0457        | 0.4958        | 1.7900e-003        | 0.2257        | 1.4300e-003        | 0.2271        | 0.0600        | 1.3200e-003        | 0.0613        | 0.0000        | 162.2032        | 162.2032        | 3.7400e-003   | 0.0000        | 0.0000          | 162.2967 |
| Total   | <b>0.0890</b> | <b>0.4988</b> | <b>0.6330</b> | <b>3.3500e-003</b> | <b>0.2669</b> | <b>1.9500e-003</b> | <b>0.2688</b> | <b>0.0719</b> | <b>1.8200e-003</b> | <b>0.0737</b> | <b>0.0000</b> | <b>316.0422</b> | <b>316.0422</b> | <b>0.0140</b> | <b>0.0000</b> | <b>316.3932</b> |          |

### Mitigated Construction On-Site

|          | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
|----------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
| Off-Road | 0.0732        | 0.6671        | 0.8605        | 1.4400e-003        |               | 0.0282        | 0.0282        |                | 0.0266        | 0.0266        | 0.0000        | 124.0768        | 124.0768        | 0.0292        | 0.0000        | 124.8059        |
| Total    | <b>0.0732</b> | <b>0.6671</b> | <b>0.8605</b> | <b>1.4400e-003</b> |               | <b>0.0282</b> | <b>0.0282</b> |                | <b>0.0266</b> | <b>0.0266</b> | <b>0.0000</b> | <b>124.0768</b> | <b>124.0768</b> | <b>0.0292</b> | <b>0.0000</b> | <b>124.8059</b> |

### Mitigated Construction Off-Site

|          | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |          |
|----------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|----------|
| Category | tons/yr       |               |               |                    |               |                    |               |                |                    |               | MT/yr         |                 |                 |               |               |                 |          |
| Hauling  | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000        | 0.0000          | 0.0000          | 0.0000        | 0.0000        | 0.0000          |          |
| Vendor   | 0.0126        | 0.4531        | 0.1371        | 1.5600e-003        | 0.0412        | 5.2000e-004        | 0.0417        | 0.0119         | 5.0000e-004        | 0.0124        | 0.0000        | 153.8389        | 153.8389        | 0.0103        | 0.0000        | 0.0000          | 154.0965 |
| Worker   | 0.0764        | 0.0457        | 0.4958        | 1.7900e-003        | 0.2257        | 1.4300e-003        | 0.2271        | 0.0600         | 1.3200e-003        | 0.0613        | 0.0000        | 162.2032        | 162.2032        | 3.7400e-003   | 0.0000        | 0.0000          | 162.2967 |
| Total    | <b>0.0890</b> | <b>0.4988</b> | <b>0.6330</b> | <b>3.3500e-003</b> | <b>0.2669</b> | <b>1.9500e-003</b> | <b>0.2688</b> | <b>0.0719</b>  | <b>1.8200e-003</b> | <b>0.0737</b> | <b>0.0000</b> | <b>316.0422</b> | <b>316.0422</b> | <b>0.0140</b> | <b>0.0000</b> | <b>316.3932</b> |          |

### 3.7 Paving 2 - paved areas - 2025

#### 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 | 0.0288      | 0.2703 | 0.4592 | 7.2000e-004 |               | 0.0132       | 0.0132     |                | 0.0121        | 0.0121      | 0.0000   | 63.0607   | 63.0607   | 0.0204 | 0.0000 | 63.5705 |  |
| Paving   | 9.1700e-003 |        |        |             |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000  |  |
| Total    | 0.0380      | 0.2703 | 0.4592 | 7.2000e-004 |               | 0.0132       | 0.0132     |                | 0.0121        | 0.0121      | 0.0000   | 63.0607   | 63.0607   | 0.0204 | 0.0000 | 63.5705 |  |

#### 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   | 1.4300e-003 | 8.8000e-004 | 9.4500e-003 | 3.0000e-005 | 4.0400e-003   | 3.0000e-005  | 4.0700e-003 | 1.0700e-003    | 2.0000e-005   | 1.1000e-003 | 0.0000   | 3.0155    | 3.0155    | 7.0000e-005 | 0.0000 | 3.0173 |  |
| Total    | 1.4300e-003 | 8.8000e-004 | 9.4500e-003 | 3.0000e-005 | 4.0400e-003   | 3.0000e-005  | 4.0700e-003 | 1.0700e-003    | 2.0000e-005   | 1.1000e-003 | 0.0000   | 3.0155    | 3.0155    | 7.0000e-005 | 0.0000 | 3.0173 |  |

#### 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     | 0.0288        | 0.2703        | 0.4592        | 7.2000e-004        |               | 0.0132        | 0.0132        |                | 0.0121        | 0.0121        | 0.0000        | 63.0606        | 63.0606        | 0.0204        | 0.0000        | 63.5705        |
| Paving       | 9.1700e-003   |               |               |                    |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000         | 0.0000        | 0.0000        | 0.0000         |
| <b>Total</b> | <b>0.0380</b> | <b>0.2703</b> | <b>0.4592</b> | <b>7.2000e-004</b> |               | <b>0.0132</b> | <b>0.0132</b> |                | <b>0.0121</b> | <b>0.0121</b> | <b>0.0000</b> | <b>63.0606</b> | <b>63.0606</b> | <b>0.0204</b> | <b>0.0000</b> | <b>63.5705</b> |

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

|          | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e   |
|----------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr    |           |           |             |        |        |
| Hauling  | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 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   | 1.4300e-003 | 8.8000e-004 | 9.4500e-003 | 3.0000e-005 | 4.0400e-003   | 3.0000e-005  | 4.0700e-003 | 1.0700e-003    | 2.0000e-005   | 1.1000e-003 | 0.0000   | 3.0155    | 3.0155    | 7.0000e-005 | 0.0000 | 3.0173 |
| Total    | 1.4300e-003 | 8.8000e-004 | 9.4500e-003 | 3.0000e-005 | 4.0400e-003   | 3.0000e-005  | 4.0700e-003 | 1.0700e-003    | 2.0000e-005   | 1.1000e-003 | 0.0000   | 3.0155    | 3.0155    | 7.0000e-005 | 0.0000 | 3.0173 |

**3.8 Architectural Coating - 2026**

## **Unmitigated Construction On-Site**

|          |             |        |        |             |  |             |             |  |             |             |        |         |         |             |        |         |
|----------|-------------|--------|--------|-------------|--|-------------|-------------|--|-------------|-------------|--------|---------|---------|-------------|--------|---------|
| Off-Road | 7.5200e-003 | 0.0504 | 0.0796 | 1.3000e-004 |  | 2.2700e-003 | 2.2700e-003 |  | 2.2700e-003 | 2.2700e-003 | 0.0000 | 11.2343 | 11.2343 | 6.1000e-004 | 0.0000 | 11.2496 |
| Total    | 2.1445      | 0.0504 | 0.0796 | 1.3000e-004 |  | 2.2700e-003 | 2.2700e-003 |  | 2.2700e-003 | 2.2700e-003 | 0.0000 | 11.2343 | 11.2343 | 6.1000e-004 | 0.0000 | 11.2496 |

### 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 |         |
| 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 |         |
| Worker   | 0.0127  | 7.5700e-003 | 0.0822 | 3.0000e-004 | 0.0374        | 2.4000e-004  | 0.0376     | 9.9400e-003    | 2.2000e-004   | 0.0102      | 0.0000   | 26.8831   | 26.8831   | 6.2000e-004 | 0.0000 | 26.8985 |
| Total    | 0.0127  | 7.5700e-003 | 0.0822 | 3.0000e-004 | 0.0374        | 2.4000e-004  | 0.0376     | 9.9400e-003    | 2.2000e-004   | 0.0102      | 0.0000   | 26.8831   | 26.8831   | 6.2000e-004 | 0.0000 | 26.8985 |

### Mitigated Construction On-Site

|                 | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e    |
|-----------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|---------|
| Category        | tons/yr     |        |        |             |               |              |             |                |               |             | MT/yr    |           |           |             |        |         |
| Archit. Coating | 2.1370      |        |        |             |               |              | 0.0000      | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 |         |
| Off-Road        | 7.5200e-003 | 0.0504 | 0.0796 | 1.3000e-004 |               | 2.2700e-003  | 2.2700e-003 |                | 2.2700e-003   | 2.2700e-003 | 0.0000   | 11.2343   | 11.2343   | 6.1000e-004 | 0.0000 | 11.2496 |
| Total           | 2.1445      | 0.0504 | 0.0796 | 1.3000e-004 |               | 2.2700e-003  | 2.2700e-003 |                | 2.2700e-003   | 2.2700e-003 | 0.0000   | 11.2343   | 11.2343   | 6.1000e-004 | 0.0000 | 11.2496 |

### Mitigated Construction Off-Site

|          | ROG     | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e    |
|----------|---------|-------------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|---------|
| Category | tons/yr |             |        |             |               |              |            |                |               |             | MT/yr    |           |           |             |        |         |
| Hauling  | 0.0000  | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000  |
| Vendor   | 0.0000  | 0.0000      | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000  |
| Worker   | 0.0127  | 7.5700e-003 | 0.0822 | 3.0000e-004 | 0.0374        | 2.4000e-004  | 0.0376     | 9.9400e-003    | 2.2000e-004   | 0.0102      | 0.0000   | 26.8831   | 26.8831   | 6.2000e-004 | 0.0000 | 26.8985 |
| Total    | 0.0127  | 7.5700e-003 | 0.0822 | 3.0000e-004 | 0.0374        | 2.4000e-004  | 0.0376     | 9.9400e-003    | 2.2000e-004   | 0.0102      | 0.0000   | 26.8831   | 26.8831   | 6.2000e-004 | 0.0000 | 26.8985 |

## **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   | 0.9284  | 3.7849 | 10.7797 | 0.0402 | 3.9341        | 0.0318       | 3.9659     | 1.0533         | 0.0295        | 1.0828      | 0.0000   | 3,723.9067 | 3,723.9067 | 0.1855 | 0.0000 | 3,728.5431 |
| Unmitigated | 0.9284  | 3.7849 | 10.7797 | 0.0402 | 3.9341        | 0.0318       | 3.9659     | 1.0533         | 0.0295        | 1.0828      | 0.0000   | 3,723.9067 | 3,723.9067 | 0.1855 | 0.0000 | 3,728.5431 |

## 4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate |          |        | Unmitigated | Mitigated  |
|----------|-------------------------|----------|--------|-------------|------------|
|          | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT |

|                           |          |          |          |            |            |
|---------------------------|----------|----------|----------|------------|------------|
| Apartments Mid Rise       | 1,548.00 | 1,612.50 | 1362.24  | 4,370,548  | 4,370,548  |
| Condo/Townhouse High Rise | 1,296.00 | 1,334.88 | 1035.18  | 3,609,944  | 3,609,944  |
| General Office Building   | 60.00    | 13.38    | 5.70     | 108,932    | 108,932    |
| Health Club               | 0.00     | 0.00     | 0.00     |            |            |
| Parking Lot               | 0.00     | 0.00     | 0.00     |            |            |
| Quality Restaurant        | 480.00   | 283.08   | 216.48   | 491,337    | 491,337    |
| Retirement Community      | 360.00   | 562.50   | 475.20   | 1,157,499  | 1,157,499  |
| Strip Mall                | 520.00   | 360.44   | 239.20   | 703,936    | 703,936    |
| Total                     | 4,264.00 | 4,166.78 | 3,334.00 | 10,442,196 | 10,442,196 |

#### 4.3 Trip Type Information

| Land Use                  | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|---------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                           | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| Apartments Mid Rise       | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| Condo/Townhouse High Rise | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| General Office Building   | 9.50       | 7.30       | 7.30        | 33.00     | 48.00      | 19.00       | 77             | 19       | 4       |
| Health Club               | 9.50       | 7.30       | 7.30        | 16.90     | 64.10      | 19.00       | 52             | 39       | 9       |
| Parking Lot               | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |
| Quality Restaurant        | 9.50       | 7.30       | 7.30        | 12.00     | 69.00      | 19.00       | 38             | 18       | 44      |
| Retirement Community      | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| Strip Mall                | 9.50       | 7.30       | 7.30        | 16.60     | 64.40      | 19.00       | 45             | 40       | 15      |

#### 4.4 Fleet Mix

| Land Use                  | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise       | 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 |
| Condo/Townhouse High Rise | 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 |
| General Office Building   | 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 |
| Health Club               | 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 |
| Parking Lot               | 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 |
| Quality Restaurant        | 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 |
| Retirement Community      | 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 |
| Strip Mall                | 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

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|                         | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 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   | 718.8798  | 718.8798    | 0.0326      | 6.7300e-003 | 721.7006 |  |
| Electricity Unmitigated |         |        |        |             |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   | 718.8798  | 718.8798    | 0.0326      | 6.7300e-003 | 721.7006 |  |
| NaturalGas Mitigated    | 0.0256  | 0.2205 | 0.1063 | 1.4000e-003 |               | 0.0177       | 0.0177     | 0.0177         | 0.0177        | 0.0000      | 253.2708 | 253.2708  | 4.8500e-003 | 4.6400e-003 | 254.7758    |          |  |
| NaturalGas Unmitigated  | 0.0256  | 0.2205 | 0.1063 | 1.4000e-003 |               | 0.0177       | 0.0177     | 0.0177         | 0.0177        | 0.0000      | 253.2708 | 253.2708  | 4.8500e-003 | 4.6400e-003 | 254.7758    |          |  |

## 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     |             |             |          |      |  |
| Apartments Mid Rise       | 1.91661e+006   | 0.0103      | 0.0883      | 0.0376      | 5.6000e-004 |               | 7.1400e-003  | 7.1400e-003 | 7.1400e-003    | 7.1400e-003   | 0.0000      | 102.2779 | 102.2779  | 1.9600e-003 | 1.8800e-003 | 102.8857 |      |  |
| Condo/Townhouse High Rise | 1.20346e+006   | 6.4900e-003 | 0.0555      | 0.0236      | 3.5000e-004 |               | 4.4800e-003  | 4.4800e-003 | 4.4800e-003    | 4.4800e-003   | 0.0000      | 64.2210  | 64.2210   | 1.2300e-003 | 1.1800e-003 | 64.6026  |      |  |
| General Office Building   | 60570          | 3.3000e-004 | 2.9700e-003 | 2.4900e-003 | 2.0000e-005 |               | 2.3000e-004  | 2.3000e-004 | 2.3000e-004    | 2.3000e-004   | 0.0000      | 3.2323   | 3.2323    | 6.0000e-005 | 6.0000e-005 | 3.2515   |      |  |
| Health Club               | 23120          | 1.2000e-004 | 1.1300e-003 | 9.5000e-004 | 1.0000e-005 |               | 9.0000e-005  | 9.0000e-005 | 9.0000e-005    | 9.0000e-005   | 0.0000      | 1.2338   | 1.2338    | 2.0000e-005 | 2.0000e-005 | 1.2411   |      |  |
| Parking Lot               | 0              | 0.0000      | 0.0000      | 0.0000      | 0.0000      |               | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000      | 0.0000   |      |  |
| Quality Restaurant        | 523140         | 2.8200e-003 | 0.0256      | 0.0215      | 1.5000e-004 |               | 1.9500e-003  | 1.9500e-003 | 1.9500e-003    | 1.9500e-003   | 0.0000      | 27.9167  | 27.9167   | 5.4000e-004 | 5.1000e-004 | 28.0826  |      |  |

|                      |              |             |             |             |             |  |             |             |  |             |             |        |          |          |             |             |          |
|----------------------|--------------|-------------|-------------|-------------|-------------|--|-------------|-------------|--|-------------|-------------|--------|----------|----------|-------------|-------------|----------|
| Retirement Community | 1.01029e+006 | 5.4500e-003 | 0.0466      | 0.0198      | 3.0000e-004 |  | 3.7600e-003 | 3.7600e-003 |  | 3.7600e-003 | 3.7600e-003 | 0.0000 | 53.9131  | 53.9131  | 1.0300e-003 | 9.9000e-004 | 54.2335  |
| Strip Mall           | 8920         | 5.0000e-005 | 4.4000e-004 | 3.7000e-004 | 0.0000      |  | 3.0000e-005 | 3.0000e-005 |  | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.4760   | 0.4760   | 1.0000e-005 | 1.0000e-005 | 0.4788   |
| Total                |              | 0.0256      | 0.2205      | 0.1063      | 1.3900e-003 |  | 0.0177      | 0.0177      |  | 0.0177      | 0.0177      | 0.0000 | 253.2708 | 253.2708 | 4.8500e-003 | 4.6500e-003 | 254.7758 |

## 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     |           |             |             |          |
| Apartments Mid Rise       | 1.91661e+006   | 0.0103      | 0.0883      | 0.0376      | 5.6000e-004 |               | 7.1400e-003  | 7.1400e-003 |                | 7.1400e-003   | 7.1400e-003 | 0.0000   | 102.2779  | 102.2779  | 1.9600e-003 | 1.8800e-003 | 102.8857 |
| Condo/Townhouse High Rise | 1.20346e+006   | 6.4900e-003 | 0.0555      | 0.0236      | 3.5000e-004 |               | 4.4800e-003  | 4.4800e-003 |                | 4.4800e-003   | 4.4800e-003 | 0.0000   | 64.2210   | 64.2210   | 1.2300e-003 | 1.1800e-003 | 64.6026  |
| General Office Building   | 60570          | 3.3000e-004 | 2.9700e-003 | 2.4900e-003 | 2.0000e-005 |               | 2.3000e-004  | 2.3000e-004 |                | 2.3000e-004   | 2.3000e-004 | 0.0000   | 3.2323    | 3.2323    | 6.0000e-005 | 6.0000e-005 | 3.2515   |
| Health Club               | 23120          | 1.2000e-004 | 1.1300e-003 | 9.5000e-004 | 1.0000e-005 |               | 9.0000e-005  | 9.0000e-005 |                | 9.0000e-005   | 9.0000e-005 | 0.0000   | 1.2338    | 1.2338    | 2.0000e-005 | 2.0000e-005 | 1.2411   |
| Parking Lot               | 0              | 0.0000      | 0.0000      | 0.0000      | 0.0000      |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000      | 0.0000   |
| Quality Restaurant        | 523140         | 2.8200e-003 | 0.0256      | 0.0215      | 1.5000e-004 |               | 1.9500e-003  | 1.9500e-003 |                | 1.9500e-003   | 1.9500e-003 | 0.0000   | 27.9167   | 27.9167   | 5.4000e-004 | 5.1000e-004 | 28.0826  |
| Retirement Community      | 1.01029e+006   | 5.4500e-003 | 0.0466      | 0.0198      | 3.0000e-004 |               | 3.7600e-003  | 3.7600e-003 |                | 3.7600e-003   | 3.7600e-003 | 0.0000   | 53.9131   | 53.9131   | 1.0300e-003 | 9.9000e-004 | 54.2335  |
| Strip Mall                | 8920           | 5.0000e-005 | 4.4000e-004 | 3.7000e-004 | 0.0000      |               | 3.0000e-005  | 3.0000e-005 |                | 3.0000e-005   | 3.0000e-005 | 0.0000   | 0.4760    | 0.4760    | 1.0000e-005 | 1.0000e-005 | 0.4788   |
| Total                     |                | 0.0256      | 0.2205      | 0.1063      | 1.3900e-003 |               | 0.0177       | 0.0177      |                | 0.0177        | 0.0177      | 0.0000   | 253.2708  | 253.2708  | 4.8500e-003 | 4.6500e-003 | 254.7758 |

## 5.3 Energy by Land Use - Electricity

### Unmitigated

|  |                 |           |     |     |      |
|--|-----------------|-----------|-----|-----|------|
|  | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--|-----------------|-----------|-----|-----|------|

| Land Use                  | kWh/yr       | MT/yr           |               |                    |                 |
|---------------------------|--------------|-----------------|---------------|--------------------|-----------------|
| Apartments Mid Rise       | 1.03327e+006 | 300.1642        | 0.0136        | 2.8100e-003        | 301.3420        |
| Condo/Townhouse High Rise | 690864       | 200.6950        | 9.0900e-003   | 1.8800e-003        | 201.4825        |
| General Office Building   | 40320        | 11.7129         | 5.3000e-004   | 1.1000e-004        | 11.7589         |
| Health Club               | 16620        | 4.8281          | 2.2000e-004   | 5.0000e-005        | 4.8470          |
| Parking Lot               | 128100       | 37.2129         | 1.6900e-003   | 3.5000e-004        | 37.3589         |
| Quality Restaurant        | 116100       | 33.7269         | 1.5300e-003   | 3.2000e-004        | 33.8592         |
| Retirement Community      | 399125       | 115.9452        | 5.2500e-003   | 1.0900e-003        | 116.4002        |
| Strip Mall                | 50240        | 14.5947         | 6.6000e-004   | 1.4000e-004        | 14.6519         |
| <b>Total</b>              |              | <b>718.8798</b> | <b>0.0326</b> | <b>6.7500e-003</b> | <b>721.7006</b> |

## Mitigated

|                           | Electricity Use | Total CO2 | CH4         | N2O         | CO2e     |
|---------------------------|-----------------|-----------|-------------|-------------|----------|
| Land Use                  | kWh/yr          | MT/yr     |             |             |          |
| Apartments Mid Rise       | 1.03327e+006    | 300.1642  | 0.0136      | 2.8100e-003 | 301.3420 |
| Condo/Townhouse High Rise | 690864          | 200.6950  | 9.0900e-003 | 1.8800e-003 | 201.4825 |
| General Office Building   | 40320           | 11.7129   | 5.3000e-004 | 1.1000e-004 | 11.7589  |
| Health Club               | 16620           | 4.8281    | 2.2000e-004 | 5.0000e-005 | 4.8470   |
| Parking Lot               | 128100          | 37.2129   | 1.6900e-003 | 3.5000e-004 | 37.3589  |
| Quality Restaurant        | 116100          | 33.7269   | 1.5300e-003 | 3.2000e-004 | 33.8592  |
| Retirement Community      | 399125          | 115.9452  | 5.2500e-003 | 1.0900e-003 | 116.4002 |

|            |       |          |             |             |          |
|------------|-------|----------|-------------|-------------|----------|
| Strip Mall | 50240 | 14.5947  | 6.6000e-004 | 1.4000e-004 | 14.6519  |
| Total      |       | 718.8798 | 0.0326      | 6.7500e-003 | 721.7006 |

## 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   | 3.3681  | 0.3114 | 8.5924 | 0.0168 |               | 0.8063       | 0.8063     |                | 0.8063        | 0.8063      | 103.0894 | 227.1380  | 330.2275  | 0.4921 | 4.0500e-003 | 343.7376 |
| Unmitigated | 3.3681  | 0.3114 | 8.5924 | 0.0168 |               | 0.8063       | 0.8063     |                | 0.8063        | 0.8063      | 103.0894 | 227.1380  | 330.2275  | 0.4921 | 4.0500e-003 | 343.7376 |

### 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 | 0.7744  |        |        |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000      | 0.0000   |
| Consumer Products     | 1.9374  |        |        |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000      | 0.0000   |
| Hearth                | 0.5420  | 0.2678 | 4.8006 | 0.0166 |               | 0.7853       | 0.7853     |                | 0.7853        | 0.7853      | 103.0894 | 220.9358  | 324.0252  | 0.4862 | 4.0500e-003 | 337.3862 |

|             |        |        |        |             |  |        |        |  |        |        |          |          |          |             |             |          |
|-------------|--------|--------|--------|-------------|--|--------|--------|--|--------|--------|----------|----------|----------|-------------|-------------|----------|
| Landscaping | 0.1144 | 0.0437 | 3.7917 | 2.0000e-004 |  | 0.0210 | 0.0210 |  | 0.0210 | 0.0210 | 0.0000   | 6.2023   | 6.2023   | 5.9700e-003 | 0.0000      | 6.3514   |
| Total       | 3.3681 | 0.3114 | 8.5924 | 0.0168      |  | 0.8063 | 0.8063 |  | 0.8063 | 0.8063 | 103.0894 | 227.1380 | 330.2275 | 0.4921      | 4.0500e-003 | 343.7376 |

## 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 | 0.7744  |        |        |             |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000      | 0.0000   |
| Consumer Products     | 1.9374  |        |        |             |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000      | 0.0000   |
| Hearth                | 0.5420  | 0.2678 | 4.8006 | 0.0166      |               | 0.7853       | 0.7853     |                | 0.7853        | 0.7853      | 103.0894 | 220.9358  | 324.0252  | 0.4862      | 4.0500e-003 | 337.3862 |
| Landscaping           | 0.1144  | 0.0437 | 3.7917 | 2.0000e-004 |               | 0.0210       | 0.0210     |                | 0.0210        | 0.0210      | 0.0000   | 6.2023    | 6.2023    | 5.9700e-003 | 0.0000      | 6.3514   |
| Total                 | 3.3681  | 0.3114 | 8.5924 | 0.0168      |               | 0.8063       | 0.8063     |                | 0.8063        | 0.8063      | 103.0894 | 227.1380  | 330.2275  | 0.4921      | 4.0500e-003 | 343.7376 |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

|             | Total CO2 | CH4    | N2O    | CO2e     |
|-------------|-----------|--------|--------|----------|
| Category    | MT/yr     |        |        |          |
| Mitigated   | 213.5229  | 1.1525 | 0.0289 | 250.9446 |
| Unmitigated | 213.5229  | 1.1525 | 0.0289 | 250.9446 |

## 7.2 Water by Land Use

### Unmitigated

|                              | Indoor/Out<br>door Use  | Total CO2       | CH4             | N2O             | CO2e            |
|------------------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                     | Mgal                    | MT/yr           |                 |                 |                 |
| Apartments Mid<br>Rise       | 16.8097 /<br>10.5974    | 103.1198        | 0.5522          | 0.0139          | 121.0513        |
| Condo/Townhouse<br>High Rise | 10.555 /<br>6.65421     | 64.7497         | 0.3467          | 8.7000e-<br>003 | 76.0090         |
| General Office<br>Building   | 0.533201 /<br>0.326801  | 3.2408          | 0.0175          | 4.4000e-<br>004 | 3.8094          |
| Health Club                  | 0.118286 /<br>0.0724981 | 0.7189          | 3.8900e-<br>003 | 1.0000e-<br>004 | 0.8451          |
| Parking Lot                  | 0 / 0                   | 0.0000          | 0.0000          | 0.0000          | 0.0000          |
| Quality Restaurant           | 0.910601 /<br>0.0581235 | 3.9209          | 0.0298          | 7.3000e-<br>004 | 4.8857          |
| Retirement<br>Community      | 5.86386 /<br>3.69678    | 35.9720         | 0.1926          | 4.8300e-<br>003 | 42.2272         |
| Strip Mall                   | 0.29629 /<br>0.181597   | 1.8008          | 9.7300e-<br>003 | 2.4000e-<br>004 | 2.1168          |
| <b>Total</b>                 |                         | <b>213.5230</b> | <b>1.1525</b>   | <b>0.0289</b>   | <b>250.9446</b> |

### Mitigated

|                        | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e     |
|------------------------|------------------------|-----------|--------|--------|----------|
| Land Use               | Mgal                   | MT/yr     |        |        |          |
| Apartments Mid<br>Rise | 16.8097 /<br>10.5974   | 103.1198  | 0.5522 | 0.0139 | 121.0513 |

|                              |                         |                 |                 |                 |                 |
|------------------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|
| Condo/Townhouse<br>High Rise | 10.555 /<br>6.65421     | 64.7497         | 0.3467          | 8.7000e-<br>003 | 76.0090         |
| General Office<br>Building   | 0.533201 /<br>0.326801  | 3.2408          | 0.0175          | 4.4000e-<br>004 | 3.8094          |
| Health Club                  | 0.118286 /<br>0.0724981 | 0.7189          | 3.8900e-<br>003 | 1.0000e-<br>004 | 0.8451          |
| Parking Lot                  | 0 / 0                   | 0.0000          | 0.0000          | 0.0000          | 0.0000          |
| Quality Restaurant           | 0.910601 /<br>0.0581235 | 3.9209          | 0.0298          | 7.3000e-<br>004 | 4.8857          |
| Retirement<br>Community      | 5.86386 /<br>3.69678    | 35.9720         | 0.1926          | 4.8300e-<br>003 | 42.2272         |
| Strip Mall                   | 0.29629 /<br>0.181597   | 1.8008          | 9.7300e-<br>003 | 2.4000e-<br>004 | 2.1168          |
| <b>Total</b>                 |                         | <b>213.5230</b> | <b>1.1525</b>   | <b>0.0289</b>   | <b>250.9446</b> |

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

#### Category/Year

|             | Total CO2 | CH4    | N2O    | CO2e     |
|-------------|-----------|--------|--------|----------|
| MT/yr       |           |        |        |          |
| Mitigated   | 12.9777   | 0.7670 | 0.0000 | 32.1518  |
| Unmitigated | 51.9109   | 3.0679 | 0.0000 | 128.6070 |

### 8.2 Waste by Land Use

#### Unmitigated

|                           | Waste Disposed | Total CO2      | CH4           | N2O           | CO2e            |
|---------------------------|----------------|----------------|---------------|---------------|-----------------|
| Land Use                  | tons           | MT/yr          |               |               |                 |
| Apartments Mid Rise       | 118.68         | 24.0910        | 1.4237        | 0.0000        | 59.6844         |
| Condo/Townhouse High Rise | 74.52          | 15.1269        | 0.8940        | 0.0000        | 37.4762         |
| General Office Building   | 2.79           | 0.5663         | 0.0335        | 0.0000        | 1.4031          |
| Health Club               | 11.4           | 2.3141         | 0.1368        | 0.0000        | 5.7331          |
| Parking Lot               | 0              | 0.0000         | 0.0000        | 0.0000        | 0.0000          |
| Quality Restaurant        | 2.74           | 0.5562         | 0.0329        | 0.0000        | 1.3780          |
| Retirement Community      | 41.4           | 8.4038         | 0.4967        | 0.0000        | 20.8201         |
| Strip Mall                | 4.2            | 0.8526         | 0.0504        | 0.0000        | 2.1122          |
| <b>Total</b>              |                | <b>51.9109</b> | <b>3.0678</b> | <b>0.0000</b> | <b>128.6070</b> |

## Mitigated

|                           | Waste Disposed | Total CO2 | CH4         | N2O    | CO2e    |
|---------------------------|----------------|-----------|-------------|--------|---------|
| Land Use                  | tons           | MT/yr     |             |        |         |
| Apartments Mid Rise       | 29.67          | 6.0227    | 0.3559      | 0.0000 | 14.9211 |
| Condo/Townhouse High Rise | 18.63          | 3.7817    | 0.2235      | 0.0000 | 9.3691  |
| General Office Building   | 0.6975         | 0.1416    | 8.3700e-003 | 0.0000 | 0.3508  |
| Health Club               | 2.85           | 0.5785    | 0.0342      | 0.0000 | 1.4333  |

|                      |       |                |               |               |                |
|----------------------|-------|----------------|---------------|---------------|----------------|
| Parking Lot          | 0     | 0.0000         | 0.0000        | 0.0000        | 0.0000         |
| Quality Restaurant   | 0.685 | 0.1391         | 8.2200e-003   | 0.0000        | 0.3445         |
| Retirement Community | 10.35 | 2.1010         | 0.1242        | 0.0000        | 5.2050         |
| Strip Mall           | 1.05  | 0.2131         | 0.0126        | 0.0000        | 0.5281         |
| <b>Total</b>         |       | <b>12.9777</b> | <b>0.7670</b> | <b>0.0000</b> | <b>32.1518</b> |

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

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### 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

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## Palomar Heights - San Diego County APCD Air District, Summer

**Palomar Heights**  
**San Diego County APCD Air District, Summer**

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

| Land Uses                 | Size   | Metric        | Lot Acreage | Floor Surface Area | Population |
|---------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building   | 3.00   | 1000sqft      | 0.07        | 3,000.00           | 0          |
| Parking Lot               | 915.00 | Space         | 7.00        | 366,000.00         | 0          |
| Health Club               | 2.00   | 1000sqft      | 0.05        | 2,000.00           | 0          |
| Quality Restaurant        | 3.00   | 1000sqft      | 0.07        | 3,000.00           | 0          |
| Apartments Mid Rise       | 258.00 | Dwelling Unit | 3.00        | 258,000.00         | 738        |
| Condo/Townhouse High Rise | 162.00 | Dwelling Unit | 2.53        | 162,000.00         | 463        |
| Retirement Community      | 90.00  | Dwelling Unit | 1.00        | 58,000.00          | 257        |
| Strip Mall                | 4.00   | 1000sqft      | 0.09        | 4,000.00           | 0          |

**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<br>(lb/MWhr) | 640.44                   | CH4 Intensity<br>(lb/MWhr) | 0.029 | N2O Intensity<br>(lb/MWhr) | 0.006 |

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

Project Characteristics - The CO2 intensity factor for SDG&E was modified to reflect compliance with the RPS for the operational year.

Land Use - Building square footages were updated to reflect the project specifics.

Construction Phase - The construction schedule was provided by the project applicant.

Trips and VMT - Construction trip data was provided by the project applicant.

Demolition - Demolition of the existing 392,001 hospital campus.

Grading - model defaults.

Architectural Coating - Compliance with SDAPCD rule 67.0.1

Vehicle Trips - Consistent with traffic report

Woodstoves - No wood fireplaces

Energy Use - Model defaults.

Construction Off-road Equipment Mitigation - Compliance with SDAPCD Fugitive dust rule

Waste Mitigation - 75% Diversion rate in compliance with AB 341

| Table Name              | Column Name                       | Default Value | New Value    |
|-------------------------|-----------------------------------|---------------|--------------|
| tblArchitecturalCoating | ConstArea_Nonresidential_Exterior | 6,000.00      | 3,500.00     |
| tblArchitecturalCoating | ConstArea_Nonresidential_Interior | 18,000.00     | 10,500.00    |
| tblArchitecturalCoating | ConstArea_Residential_Exterior    | 322,650.00    | 343,389.00   |
| tblArchitecturalCoating | ConstArea_Residential_Interior    | 967,950.00    | 1,030,168.00 |
| tblArchitecturalCoating | EF_Nonresidential_Exterior        | 250.00        | 100.00       |
| tblArchitecturalCoating | EF_Nonresidential_Interior        | 250.00        | 50.00        |
| tblArchitecturalCoating | EF_Residential_Exterior           | 250.00        | 100.00       |
| tblArchitecturalCoating | EF_Residential_Interior           | 250.00        | 50.00        |
| tblConstDustMitigation  | WaterUnpavedRoadVehicleSpeed      | 0             | 15           |
| tblConstructionPhase    | NumDays                           | 20.00         | 88.00        |
| tblConstructionPhase    | NumDays                           | 300.00        | 1,129.00     |
| tblConstructionPhase    | NumDays                           | 20.00         | 153.00       |
| tblConstructionPhase    | NumDays                           | 30.00         | 152.00       |
| tblConstructionPhase    | NumDays                           | 20.00         | 65.00        |
| tblConstructionPhase    | NumDays                           | 20.00         | 63.00        |
| tblConstructionPhase    | NumDays                           | 10.00         | 85.00        |
| tblFireplaces           | NumberWood                        | 90.30         | 0.00         |
| tblFireplaces           | NumberWood                        | 56.70         | 0.00         |
| tblFireplaces           | NumberWood                        | 31.50         | 0.00         |

|                           |                    |           |           |
|---------------------------|--------------------|-----------|-----------|
| tblGrading                | MaterialImported   | 0.00      | 15,470.00 |
| tblLandUse                | LandUseSquareFeet  | 90,000.00 | 58,000.00 |
| tblLandUse                | LotAcreage         | 8.23      | 7.00      |
| tblLandUse                | LotAcreage         | 6.79      | 3.00      |
| tblLandUse                | LotAcreage         | 18.00     | 1.00      |
| tblProjectCharacteristics | CO2IntensityFactor | 720.49    | 640.44    |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 525.00    | 526.00    |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 105.00    | 106.00    |
| tblVehicleTrips           | ST_TR              | 6.39      | 6.25      |
| tblVehicleTrips           | ST_TR              | 4.31      | 8.24      |
| tblVehicleTrips           | ST_TR              | 2.46      | 4.46      |
| tblVehicleTrips           | ST_TR              | 20.87     | 0.00      |
| tblVehicleTrips           | ST_TR              | 2.03      | 6.25      |
| tblVehicleTrips           | ST_TR              | 42.04     | 90.11     |
| tblVehicleTrips           | SU_TR              | 5.86      | 5.28      |
| tblVehicleTrips           | SU_TR              | 3.43      | 6.39      |
| tblVehicleTrips           | SU_TR              | 1.05      | 1.90      |
| tblVehicleTrips           | SU_TR              | 26.73     | 0.00      |
| tblVehicleTrips           | SU_TR              | 1.95      | 5.28      |
| tblVehicleTrips           | SU_TR              | 20.43     | 59.80     |
| tblVehicleTrips           | WD_TR              | 6.65      | 6.00      |
| tblVehicleTrips           | WD_TR              | 4.18      | 8.00      |
| tblVehicleTrips           | WD_TR              | 11.03     | 20.00     |
| tblVehicleTrips           | WD_TR              | 32.93     | 0.00      |
| tblVehicleTrips           | WD_TR              | 89.95     | 160.00    |
| tblVehicleTrips           | WD_TR              | 2.40      | 4.00      |
| tblVehicleTrips           | WD_TR              | 44.32     | 130.00    |

## 2.0 Emissions Summary

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### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

|         | ROG     | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O    | CO2e        |
|---------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|-------------|
| Year    | lb/day  |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |        |             |
| 2020    | 3.4629  | 36.4915 | 22.9449 | 0.0493 | 2.8886        | 1.6700       | 4.5585     | 0.4774         | 1.5526        | 2.0300      | 0.0000   | 4,880.4728 | 4,880.4728 | 1.1499 | 0.0000 | 4,909.2198  |
| 2021    | 5.9281  | 61.9800 | 47.1178 | 0.0955 | 18.2141       | 2.6730       | 20.2596    | 9.9699         | 2.4594        | 11.8517     | 0.0000   | 9,358.6970 | 9,358.6970 | 2.7402 | 0.0000 | 9,427.2025  |
| 2022    | 5.1897  | 39.0142 | 47.1627 | 0.1235 | 5.2377        | 1.4284       | 6.6660     | 1.4070         | 1.3318        | 2.7388      | 0.0000   | 12,362.22  | 12,362.22  | 1.6755 | 0.0000 | 12,404.1157 |
| 2023    | 3.4529  | 24.1573 | 30.9067 | 0.0970 | 5.1062        | 0.7387       | 5.8449     | 1.3722         | 0.6947        | 2.0669      | 0.0000   | 9,787.5105 | 9,787.5105 | 0.9248 | 0.0000 | 9,810.6292  |
| 2024    | 3.2611  | 23.0123 | 29.9643 | 0.0952 | 5.1062        | 0.6515       | 5.7577     | 1.3722         | 0.6124        | 1.9846      | 0.0000   | 9,610.6307 | 9,610.6307 | 0.9105 | 0.0000 | 9,633.3936  |
| 2025    | 4.3299  | 30.4496 | 43.9883 | 0.1173 | 5.2377        | 0.9844       | 6.2221     | 1.4070         | 0.9169        | 2.3240      | 0.0000   | 11,755.23  | 11,755.23  | 1.6142 | 0.0000 | 11,795.5868 |
| 2026    | 52.0347 | 22.9649 | 32.2337 | 0.1019 | 5.9770        | 0.6208       | 6.5978     | 1.6031         | 0.5865        | 2.1897      | 0.0000   | 10,276.21  | 10,276.21  | 0.9216 | 0.0000 | 10,299.2513 |
| Maximum | 52.0347 | 61.9800 | 47.1627 | 0.1235 | 18.2141       | 2.6730       | 20.2596    | 9.9699         | 2.4594        | 11.8517     | 0.0000   | 12,362.22  | 12,362.22  | 2.7402 | 0.0000 | 12,404.1157 |

#### Mitigated Construction

|      | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4    | N2O    | CO2e       |
|------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|--------|--------|------------|
| Year | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |        |        |            |
| 2020 | 3.4629 | 36.4915 | 22.9449 | 0.0493 | 1.4841        | 1.6700       | 3.1541     | 0.2647         | 1.5526        | 1.8173      | 0.0000   | 4,880.472 | 4,880.4728 | 1.1499 | 0.0000 | 4,909.2198 |
| 2021 | 5.9281 | 61.9800 | 47.1178 | 0.0955 | 8.2777        | 2.6730       | 10.3232    | 4.5080         | 2.4594        | 6.3899      | 0.0000   | 9,358.697 | 9,358.6970 | 2.7402 | 0.0000 | 9,427.2024 |

|                   |         |         |         |        |               |              |            |                |               |             |          |                 |                 |        |        |                 |
|-------------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------------|-----------------|--------|--------|-----------------|
| 2022              | 5.1897  | 39.0142 | 47.1627 | 0.1235 | 5.2377        | 1.4284       | 6.6660     | 1.4070         | 1.3318        | 2.7388      | 0.0000   | 12,362.22<br>75 | 12,362.227<br>5 | 1.6755 | 0.0000 | 12,404.11<br>57 |
| 2023              | 3.4529  | 24.1573 | 30.9067 | 0.0970 | 5.1062        | 0.7387       | 5.8449     | 1.3722         | 0.6947        | 2.0669      | 0.0000   | 9,787.510<br>5  | 9,787.5105      | 0.9248 | 0.0000 | 9,810.629<br>2  |
| 2024              | 3.2611  | 23.0123 | 29.9643 | 0.0952 | 5.1062        | 0.6515       | 5.7577     | 1.3722         | 0.6124        | 1.9846      | 0.0000   | 9,610.630<br>7  | 9,610.6307      | 0.9105 | 0.0000 | 9,633.393<br>6  |
| 2025              | 4.3299  | 30.4496 | 43.9883 | 0.1173 | 5.2377        | 0.9844       | 6.2221     | 1.4070         | 0.9169        | 2.3240      | 0.0000   | 11,755.23<br>30 | 11,755.233<br>0 | 1.6142 | 0.0000 | 11,795.58<br>68 |
| 2026              | 52.0347 | 22.9649 | 32.2337 | 0.1019 | 5.9770        | 0.6208       | 6.5978     | 1.6031         | 0.5865        | 2.1897      | 0.0000   | 10,276.21<br>13 | 10,276.211<br>3 | 0.9216 | 0.0000 | 10,299.25<br>13 |
| Maximum           | 52.0347 | 61.9800 | 47.1627 | 0.1235 | 8.2777        | 2.6730       | 10.3232    | 4.5080         | 2.4594        | 6.3899      | 0.0000   | 12,362.22<br>75 | 12,362.227<br>5 | 2.7402 | 0.0000 | 12,404.11<br>57 |
|                   | ROG     | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2        | Total CO2       | CH4    | N2O    | CO2e            |
| Percent Reduction | 0.00    | 0.00    | 0.00    | 0.00   | 23.74         | 0.00         | 20.29      | 32.23          | 0.00          | 22.53       | 0.00     | 0.00            | 0.00            | 0.00   | 0.00   | 0.00            |

## 2.2 Overall Operational

### Unmitigated Operational

|          | ROG     | NOx     | CO       | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio-CO2        | Total CO2        | CH4     | N2O    | CO2e            |
|----------|---------|---------|----------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------------|-----------------|------------------|---------|--------|-----------------|
| Category | lb/day  |         |          |             |               |              |            |                |               |             |                |                 | lb/day           |         |        |                 |
| Area     | 29.3492 | 7.0159  | 159.2190 | 0.4075      |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6  | 8,787.5902<br>13 | 13.1437 | 0.1089 | 9,148.635<br>2  |
| Energy   | 0.1402  | 1.2082  | 0.5827   | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |                | 1,529.771<br>1  | 1,529.7711       | 0.0293  | 0.0281 | 1,538.861<br>8  |
| Mobile   | 5.9978  | 22.4190 | 67.3470  | 0.2549      | 24.4528       | 0.1927       | 24.6455    | 6.5340         | 0.1792        | 6.7132      |                | 26,003.63<br>60 | 26,003.636<br>0  | 1.2479  |        | 26,034.83<br>42 |
| Total    | 35.4872 | 30.6431 | 227.1487 | 0.6701      | 24.4528       | 19.6773      | 44.1301    | 6.5340         | 19.6638       | 26.1978     | 2,771.625<br>6 | 33,549.37<br>17 | 36,320.997<br>3  | 14.4210 | 0.1370 | 36,722.33<br>12 |

### 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     | 29.3492 | 7.0159  | 159.2190 | 0.4075      |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6  | 8,787.5902      | 13.1437 | 0.1089 | 9,148.635<br>2  |  |
| Energy   | 0.1402  | 1.2082  | 0.5827   | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |                | 1,529.771<br>1  | 1,529.7711      | 0.0293  | 0.0281 | 1,538.861<br>8  |  |
| Mobile   | 5.9978  | 22.4190 | 67.3470  | 0.2549      | 24.4528       | 0.1927       | 24.6455    | 6.5340         | 0.1792        | 6.7132      |                | 26,003.63<br>60 | 26,003.636<br>0 | 1.2479  |        | 26,034.83<br>42 |  |
| Total    | 35.4872 | 30.6431 | 227.1487 | 0.6701      | 24.4528       | 19.6773      | 44.1301    | 6.5340         | 19.6638       | 26.1978     | 2,771.625<br>6 | 33,549.37<br>17 | 36,320.997<br>3 | 14.4210 | 0.1370 | 36,722.33<br>12 |  |

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

### 3.0 Construction Detail

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#### Construction Phase

| Phase Number | Phase Name                            | Phase Type            | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|---------------------------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1            | Demolition                            | Demolition            | 6/1/2020   | 12/30/2020 | 5             | 153      |                   |
| 2            | Site Preparation                      | Site Preparation      | 1/4/2021   | 4/30/2021  | 5             | 85       |                   |
| 3            | Grading                               | Grading               | 5/1/2021   | 11/30/2021 | 5             | 152      |                   |
| 4            | Paving 1 - Internal road construction | Paving                | 11/30/2021 | 2/28/2022  | 5             | 65       |                   |
| 5            | Building Construction                 | Building Construction | 2/1/2022   | 5/29/2026  | 5             | 1129     |                   |
| 6            | Paving 2 - paved areas                | Paving                | 1/1/2025   | 3/28/2025  | 5             | 63       |                   |
| 7            | Architectural Coating                 | Architectural Coating | 1/2/2026   | 5/5/2026   | 5             | 88       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 380

Acres of Paving: 7

Residential Indoor: 1,030,168; Residential Outdoor: 343,389; Non-Residential Indoor: 10,500; Non-Residential Outdoor: 3,500; Striped

## OffRoad Equipment

| Phase Name                            | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|---------------------------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition                            | Concrete/Industrial Saws  | 1      | 8.00        | 81          | 0.73        |
| Demolition                            | Excavators                | 3      | 8.00        | 158         | 0.38        |
| Demolition                            | Rubber Tired Dozers       | 2      | 8.00        | 247         | 0.40        |
| Site Preparation                      | Rubber Tired Dozers       | 3      | 8.00        | 247         | 0.40        |
| Site Preparation                      | Tractors/Loaders/Backhoes | 4      | 8.00        | 97          | 0.37        |
| Grading                               | Excavators                | 2      | 8.00        | 158         | 0.38        |
| Grading                               | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Grading                               | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading                               | Scrapers                  | 2      | 8.00        | 367         | 0.48        |
| Grading                               | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Paving 1 - Internal road construction | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving 1 - Internal road construction | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving 1 - Internal road construction | Rollers                   | 2      | 8.00        | 80          | 0.38        |
| 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 2 - paved areas                | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving 2 - paved areas                | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving 2 - paved areas                | 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 |
|------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition       | 6                       | 16.00              | 0.00               | 1,783.00            | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation | 7                       | 18.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

|                                       |   |        |        |          |       |      |       |        |         |      |
|---------------------------------------|---|--------|--------|----------|-------|------|-------|--------|---------|------|
| Grading                               | 8 | 20.00  | 0.00   | 1,530.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving 1 - Internal road construction | 6 | 16.00  | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction                 | 9 | 526.00 | 116.00 | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving 2 - paved areas                | 6 | 16.00  | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating                 | 1 | 106.00 | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

### 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e       |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |            |
| Fugitive Dust |        |         |         |        | 2.5535        | 0.0000       | 2.5535     | 0.3867         | 0.0000        | 0.3867      |          |            | 0.0000     |        |     | 0.0000     |
| Off-Road      | 3.3121 | 33.2010 | 21.7532 | 0.0388 |               | 1.6587       | 1.6587     |                | 1.5419        | 1.5419      |          | 3,747.7049 | 3,747.7049 | 1.0580 |     | 3,774.1536 |
| Total         | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 2.5535        | 1.6587       | 4.2122     | 0.3867         | 1.5419        | 1.9285      |          | 3,747.7049 | 3,747.7049 | 1.0580 |     | 3,774.1536 |

#### 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  | 0.0921 | 3.2510 | 0.7381 | 9.1200e-003 | 0.2036        | 0.0104       | 0.2140     | 0.0558         | 9.9200e-003   | 0.0657      |          | 997.9284  | 997.9284  | 0.0879 |     | 1,000.1260 |

|        |        |        |        |             |        |             |        |        |             |        |        |            |            |             |        |            |
|--------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|--------|------------|------------|-------------|--------|------------|
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000     | 0.0000     | 0.0000      | 0.0000 | 0.0000     |
| Worker | 0.0587 | 0.0396 | 0.4535 | 1.3500e-003 | 0.1314 | 9.2000e-004 | 0.1324 | 0.0349 | 8.5000e-004 | 0.0357 |        | 134.8395   | 134.8395   | 4.0300e-003 |        | 134.9402   |
| Total  | 0.1508 | 3.2905 | 1.1917 | 0.0105      | 0.3351 | 0.0113      | 0.3464 | 0.0907 | 0.0108      | 0.1014 |        | 1,132.7679 | 1,132.7679 | 0.0919      |        | 1,135.0662 |

### Mitigated Construction On-Site

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O    | CO2e       |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |        |            |
| Fugitive Dust |        |         |         |        | 1.1491        | 0.0000       | 1.1491     | 0.1740         | 0.0000        | 0.1740      |          |            | 0.0000     |        | 0.0000 |            |
| Off-Road      | 3.3121 | 33.2010 | 21.7532 | 0.0388 |               | 1.6587       | 1.6587     |                | 1.5419        | 1.5419      | 0.0000   | 3,747.7049 | 3,747.7049 | 1.0580 |        | 3,774.1536 |
| Total         | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 1.1491        | 1.6587       | 2.8078     | 0.1740         | 1.5419        | 1.7159      | 0.0000   | 3,747.7049 | 3,747.7049 | 1.0580 |        | 3,774.1536 |

### 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  | 0.0921 | 3.2510 | 0.7381 | 9.1200e-003 | 0.2036        | 0.0104       | 0.2140     | 0.0558         | 9.9200e-003   | 0.0657      |          | 997.9284   | 997.9284   | 0.0879      |        | 1,000.1260 |
| 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 |            |
| Worker   | 0.0587 | 0.0396 | 0.4535 | 1.3500e-003 | 0.1314        | 9.2000e-004  | 0.1324     | 0.0349         | 8.5000e-004   | 0.0357      |          | 134.8395   | 134.8395   | 4.0300e-003 |        | 134.9402   |
| Total    | 0.1508 | 3.2905 | 1.1917 | 0.0105      | 0.3351        | 0.0113       | 0.3464     | 0.0907         | 0.0108        | 0.1014      |          | 1,132.7679 | 1,132.7679 | 0.0919      |        | 1,135.0662 |

### **3.3 Site Preparation - 2021**

## **Unmitigated Construction On-Site**

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e   |           |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|--------|-----------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |        |           |
| Fugitive Dust |        |         |         |        | 18.0663       | 0.0000       | 18.0663    | 9.9307         | 0.0000        | 9.9307      |          |            | 0.0000     |        |     | 0.0000 |           |
| Off-Road      | 3.8882 | 40.4971 | 21.1543 | 0.0380 |               | 2.0445       | 2.0445     |                | 1.8809        | 1.8809      |          | 3,685.656  | 3,685.6569 | 1.1920 |     |        | 3,715.453 |
| Total         | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663       | 2.0445       | 20.1107    | 9.9307         | 1.8809        | 11.8116     |          | 3,685.6569 | 3,685.6569 | 1.1920 |     |        | 3,715.453 |

## **Unmitigated Construction Off-Site**

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e     |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|----------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |           |             |        |          |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000   |
| Worker   | 0.0623 | 0.0405 | 0.4774 | 1.4700e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      |          | 146.5994  | 146.5994  | 4.1800e-003 |        | 146.7040 |
| Total    | 0.0623 | 0.0405 | 0.4774 | 1.4700e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      |          | 146.5994  | 146.5994  | 4.1800e-003 |        | 146.7040 |

### **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 |         |         |        |        |        |         |        |        |        |        |            |            |        |  |            |
| Off-Road | 3.8882        | 40.4971 | 21.1543 | 0.0380 |        | 2.0445 | 2.0445  |        | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 |  | 3,715.4573 |
| Total    | 3.8882        | 40.4971 | 21.1543 | 0.0380 | 8.1298 | 2.0445 | 10.1743 | 4.4688 | 1.8809 | 6.3497 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 |  | 3,715.4573 |

### 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   | 0.0000 | 0.0000   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000   | 0.0000 | 0.0000   |
| Worker   | 0.0623 | 0.0405 | 0.4774 | 1.4700e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      | 146.5994 | 146.5994  | 4.1800e-003 | 146.7040 |        |          |
| Total    | 0.0623 | 0.0405 | 0.4774 | 1.4700e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      | 146.5994 | 146.5994  | 4.1800e-003 |          |        | 146.7040 |

### **3.4 Grading - 2021**

#### Unmitigated Construction On-Site

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4 | N2O        | CO2e   |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|-----|------------|--------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day     |            |           |     |            |        |
| Fugitive Dust |        |         |         |        | 8.6733        | 0.0000       | 8.6733     | 3.5965         | 0.0000        | 3.5965      |            |            | 0.0000    |     |            | 0.0000 |
| Off-Road      | 4.1912 | 46.3998 | 30.8785 | 0.0620 |               | 1.9853       | 1.9853     |                | 1.8265        | 1.8265      | 6,007.0434 | 6,007.0434 | 1.9428    |     | 6,055.6134 |        |

|       |        |         |         |        |        |        |         |        |        |        |  |                |            |        |  |                |
|-------|--------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--|----------------|------------|--------|--|----------------|
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 |  | 6,007.043<br>4 | 6,007.0434 | 1.9428 |  | 6,055.613<br>4 |
|-------|--------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--|----------------|------------|--------|--|----------------|

### 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  | 0.0747 | 2.5802 | 0.6312 | 7.7600e-003 | 0.1759        | 7.8700e-003  | 0.1838     | 0.0482         | 7.5300e-003   | 0.0557      | 851.2440       | 851.2440   | 0.0752      |        |        | 853.1238       |
| 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 |                |
| Worker   | 0.0692 | 0.0449 | 0.5305 | 1.6300e-003 | 0.1643        | 1.1300e-003  | 0.1654     | 0.0436         | 1.0500e-003   | 0.0446      | 162.8882       | 162.8882   | 4.6500e-003 |        |        | 163.0044       |
| Total    | 0.1439 | 2.6251 | 1.1617 | 9.3900e-003 | 0.3402        | 9.0000e-003  | 0.3492     | 0.0918         | 8.5800e-003   | 0.1004      | 1,014.132<br>2 | 1,014.1322 | 0.0798      |        |        | 1,016.128<br>2 |

### 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 |        |         |         |        | 3.9030        | 0.0000       | 3.9030     | 1.6184         | 0.0000        | 1.6184      |          | 0.0000         |            |        |     | 0.0000         |
| Off-Road      | 4.1912 | 46.3998 | 30.8785 | 0.0620 |               | 1.9853       | 1.9853     |                | 1.8265        | 1.8265      | 0.0000   | 6,007.043<br>4 | 6,007.0434 | 1.9428 |     | 6,055.613<br>4 |
| Total         | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 3.9030        | 1.9853       | 5.8883     | 1.6184         | 1.8265        | 3.4449      | 0.0000   | 6,007.043<br>4 | 6,007.0434 | 1.9428 |     | 6,055.613<br>4 |

### 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  | 0.0747 | 2.5802 | 0.6312 | 7.7600e-003 | 0.1759        | 7.8700e-003  | 0.1838     | 0.0482         | 7.5300e-003   | 0.0557      | 851.2440   | 851.2440   | 0.0752      |        |        | 853.1238   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000     | 0.0000     | 0.0000      | 0.0000 | 0.0000 | 0.0000     |
| Worker   | 0.0692 | 0.0449 | 0.5305 | 1.6300e-003 | 0.1643        | 1.1300e-003  | 0.1654     | 0.0436         | 1.0500e-003   | 0.0446      | 162.8882   | 162.8882   | 4.6500e-003 |        |        | 163.0044   |
| Total    | 0.1439 | 2.6251 | 1.1617 | 9.3900e-003 | 0.3402        | 9.0000e-003  | 0.3492     | 0.0918         | 8.5800e-003   | 0.1004      | 1,014.1322 | 1,014.1322 | 0.0798      |        |        | 1,016.1282 |

3.5 Paving 1 - Internal road construction - 2021

## **Unmitigated Construction On-Site**

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4 | N2O | CO2e       |        |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|-----|-----|------------|--------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day     |            |           |     |     |            |        |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 |               | 0.6777       | 0.6777     |                | 0.6235        | 0.6235      | 2,207.2109 | 2,207.2109 | 0.7139    |     |     | 2,225.0573 |        |
| Paving   | 0.2822 |         |         |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |            | 0.0000     | 0.0000    |     |     |            | 0.0000 |
| Total    | 1.5377 | 12.9191 | 14.6532 | 0.0228 |               | 0.6777       | 0.6777     |                | 0.6235        | 0.6235      | 2,207.2109 | 2,207.2109 | 0.7139    |     |     | 2,225.0573 |        |

## **Unmitigated Construction Off-Site**

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

|         |        |        |        |             |        |             |        |        |             |        |          |          |             |          |        |
|---------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|----------|----------|-------------|----------|--------|
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000   | 0.0000   | 0.0000      | 0.0000   | 0.0000 |
| 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 |
| Worker  | 0.0553 | 0.0360 | 0.4244 | 1.3100e-003 | 0.1314 | 9.1000e-004 | 0.1323 | 0.0349 | 8.4000e-004 | 0.0357 | 130.3105 | 130.3105 | 3.7200e-003 | 130.4035 |        |
| Total   | 0.0553 | 0.0360 | 0.4244 | 1.3100e-003 | 0.1314 | 9.1000e-004 | 0.1323 | 0.0349 | 8.4000e-004 | 0.0357 | 130.3105 | 130.3105 | 3.7200e-003 | 130.4035 |        |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4        | N2O    | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|------------|--------|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |            |        |            |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 |               |              | 0.6777     | 0.6777         |               | 0.6235      | 0.6235   | 0.0000    | 2,207.2109 | 2,207.2109 | 0.7139 | 2,225.0573 |
| Paving   | 0.2822 |         |         |        |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           | 0.0000     |            | 0.0000 |            |
| Total    | 1.5377 | 12.9191 | 14.6532 | 0.0228 |               |              | 0.6777     | 0.6777         |               | 0.6235      | 0.6235   | 0.0000    | 2,207.2109 | 2,207.2109 | 0.7139 | 2,225.0573 |

### 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   | 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 |      |
| Worker   | 0.0553 | 0.0360 | 0.4244 | 1.3100e-003 | 0.1314        | 9.1000e-004  | 0.1323     | 0.0349         | 8.4000e-004   | 0.0357      | 130.3105 | 130.3105  | 3.7200e-003 | 130.4035 |        |      |
| Total    | 0.0553 | 0.0360 | 0.4244 | 1.3100e-003 | 0.1314        | 9.1000e-004  | 0.1323     | 0.0349         | 8.4000e-004   | 0.0357      | 130.3105 | 130.3105  | 3.7200e-003 | 130.4035 |        |      |

### 3.5 Paving 1 - Internal road construction - 2022

#### Unmitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|------------|-----------|--------|----------------|------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day         |            |           |        |                |      |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 |               | 0.5679       | 0.5679     |                | 0.5225        | 0.5225      | 2,207.660<br>3 | 2,207.6603 | 0.7140    |        | 2,225.510<br>4 |      |
| Paving   | 0.2822 |         |         |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |                | 0.0000     |           | 0.0000 |                |      |
| Total    | 1.3850 | 11.1249 | 14.5805 | 0.0228 |               | 0.5679       | 0.5679     |                | 0.5225        | 0.5225      | 2,207.660<br>3 | 2,207.6603 | 0.7140    |        | 2,225.510<br>4 |      |

#### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4    | N2O      | CO2e   |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|--------|----------|--------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |             |        |          |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Worker   | 0.0523 | 0.0328 | 0.3946 | 1.2600e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      | 125.5296 | 125.5296  | 3.4100e-003 |        | 125.6148 |        |
| Total    | 0.0523 | 0.0328 | 0.3946 | 1.2600e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      | 125.5296 | 125.5296  | 3.4100e-003 |        | 125.6148 |        |

#### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4        | N2O    | CO2e   |            |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|------------|--------|--------|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |            |        |        |            |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 |               |              | 0.5679     | 0.5679         |               | 0.5225      | 0.5225   | 0.0000    | 2,207.6603 | 2,207.6603 | 0.7140 |        | 2,225.5104 |
| Paving   | 0.2822 |         |         |        |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           |            | 0.0000     |        | 0.0000 |            |
| Total    | 1.3850 | 11.1249 | 14.5805 | 0.0228 |               |              | 0.5679     | 0.5679         |               | 0.5225      | 0.5225   | 0.0000    | 2,207.6603 | 2,207.6603 | 0.7140 |        | 2,225.5104 |

### 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      | 0.0000 | 0.0000   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000   |
| Worker   | 0.0523 | 0.0328 | 0.3946 | 1.2600e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      |          | 125.5296  | 125.5296  | 3.4100e-003 |        | 125.6148 |
| Total    | 0.0523 | 0.0328 | 0.3946 | 1.2600e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      |          | 125.5296  | 125.5296  | 3.4100e-003 |        | 125.6148 |

### **3.6 Building Construction - 2022**

#### Unmitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4        | N2O    | CO2e |            |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------------|--------|------|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |           |            |        |      |            |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 |               |              | 0.8090     | 0.8090         |               | 0.7612      | 0.7612   |           | 2,554.333 | 2,554.3336 | 0.6120 |      | 2,569.6322 |

|       |        |         |         |        |  |        |        |  |        |        |  |                |            |        |  |                |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 |  | 0.8090 | 0.8090 |  | 0.7612 | 0.7612 |  | 2,554.333<br>6 | 2,554.3336 | 0.6120 |  | 2,569.632<br>2 |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|

### Unmitigated Construction Off-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|------------|-----------|--------|----------------|------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day         |            |           |        |                |      |
| Hauling  | 0.0000 | 0.0000  | 0.0000  | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000         | 0.0000     | 0.0000    | 0.0000 | 0.0000         |      |
| Vendor   | 0.3262 | 11.1630 | 2.8509  | 0.0311 | 0.7853        | 0.0213       | 0.8066     | 0.2261         | 0.0204        | 0.2465      | 3,347.919<br>8 | 3,347.9198 | 0.2341    |        | 3,353.772<br>1 |      |
| Worker   | 1.7200 | 1.0779  | 12.9732 | 0.0414 | 4.3210        | 0.0292       | 4.3502     | 1.1461         | 0.0269        | 1.1730      | 4,126.784<br>3 | 4,126.7843 | 0.1121    |        | 4,129.586<br>2 |      |
| Total    | 2.0462 | 12.2409 | 15.8242 | 0.0725 | 5.1062        | 0.0505       | 5.1568     | 1.3722         | 0.0473        | 1.4195      | 7,474.704<br>1 | 7,474.7041 | 0.3462    |        | 7,483.358<br>3 |      |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2      | Total CO2  | CH4    | N2O | CO2e           |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|------------|--------|-----|----------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |                |            |        |     |                |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 |               | 0.8090       | 0.8090     |                | 0.7612        | 0.7612      | 0.0000   | 2,554.333<br>6 | 2,554.3336 | 0.6120 |     | 2,569.632<br>2 |
| Total    | 1.7062 | 15.6156 | 16.3634 | 0.0269 |               | 0.8090       | 0.8090     |                | 0.7612        | 0.7612      | 0.0000   | 2,554.333<br>6 | 2,554.3336 | 0.6120 |     | 2,569.632<br>2 |

### 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 | 0.0000         | 0.0000 |  |
| Vendor   | 0.3262 | 11.1630 | 2.8509  | 0.0311 | 0.7853        | 0.0213       | 0.8066     | 0.2261         | 0.0204        | 0.2465      | 3,347.919<br>8 | 3,347.9198 | 0.2341    | 1      | 3,353.772      |        |  |
| Worker   | 1.7200 | 1.0779  | 12.9732 | 0.0414 | 4.3210        | 0.0292       | 4.3502     | 1.1461         | 0.0269        | 1.1730      | 4,126.784<br>3 | 4,126.7843 | 0.1121    | 2      | 4,129.586      |        |  |
| Total    | 2.0462 | 12.2409 | 15.8242 | 0.0725 | 5.1062        | 0.0505       | 5.1568     | 1.3722         | 0.0473        | 1.4195      | 7,474.704<br>1 | 7,474.7041 | 0.3462    |        | 7,483.358<br>3 |        |  |

### 3.6 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   | 2,555.209<br>9 | 2,555.2099 | 0.6079 | 1   | 2,570.406      |  |
| Total    | 1.5728 | 14.3849 | 16.2440 | 0.0269 |               |              | 0.6997     | 0.6997         |               | 0.6584      | 0.6584   | 2,555.209<br>9 | 2,555.2099 | 0.6079 |     | 2,570.406<br>1 |  |

#### Unmitigated Construction Off-Site

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

|         |        |        |         |        |        |        |        |        |             |        |        |           |            |        |            |
|---------|--------|--------|---------|--------|--------|--------|--------|--------|-------------|--------|--------|-----------|------------|--------|------------|
| Hauling | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000    | 0.0000     | 0.0000 | 0.0000     |
| Vendor  | 0.2515 | 8.7880 | 2.6115  | 0.0302 | 0.7853 | 0.0104 | 0.7956 | 0.2261 | 9.9000e-003 | 0.2360 | 6      | 3,263.277 | 3,263.2776 | 0.2143 | 3,268.6354 |
| Worker  | 1.6286 | 0.9844 | 12.0511 | 0.0398 | 4.3210 | 0.0286 | 4.3496 | 1.1461 | 0.0264      | 1.1725 | 9      | 3,969.022 | 3,969.0229 | 0.1026 | 3,971.5878 |
| Total   | 1.8801 | 9.7724 | 14.6627 | 0.0700 | 5.1062 | 0.0390 | 5.1452 | 1.3722 | 0.0363      | 1.4084 | 5      | 7,232.300 | 7,232.3005 | 0.3169 | 7,240.2232 |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |            |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 |               | 0.6997       | 0.6997     |                | 0.6584        | 0.6584      | 0.0000   | 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      | 0.0000   | 2,555.2099 | 2,555.2099 | 0.6079 |     | 2,570.4061 |

### 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 | 0.0000     |      |
| Vendor   | 0.2515 | 8.7880 | 2.6115  | 0.0302 | 0.7853        | 0.0104       | 0.7956     | 0.2261         | 9.9000e-003   | 0.2360      | 6        | 3,263.277 | 3,263.2776 | 0.2143 | 3,268.6354 |      |
| Worker   | 1.6286 | 0.9844 | 12.0511 | 0.0398 | 4.3210        | 0.0286       | 4.3496     | 1.1461         | 0.0264        | 1.1725      | 9        | 3,969.022 | 3,969.0229 | 0.1026 | 3,971.5878 |      |
| Total    | 1.8801 | 9.7724 | 14.6627 | 0.0700 | 5.1062        | 0.0390       | 5.1452     | 1.3722         | 0.0363        | 1.4084      | 5        | 7,232.300 | 7,232.3005 | 0.3169 | 7,240.2232 |      |

### 3.6 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 |  |

#### 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   | 0.2426 | 8.6655 | 2.5301  | 0.0300 | 0.7853        | 0.0101       | 0.7954     | 0.2261         | 9.6600e-003   | 0.2357      |          | 3,242.2886 | 3,242.2886 | 0.2119 |     | 3,247.5848 |  |
| Worker   | 1.5469 | 0.9030 | 11.2674 | 0.0382 | 4.3210        | 0.0281       | 4.3491     | 1.1461         | 0.0259        | 1.1720      |          | 3,812.6432 | 3,812.6432 | 0.0943 |     | 3,815.0011 |  |
| Total    | 1.7895 | 9.5686 | 13.7975 | 0.0682 | 5.1062        | 0.0382       | 5.1444     | 1.3722         | 0.0355        | 1.4077      |          | 7,054.9318 | 7,054.9318 | 0.3062 |     | 7,062.5859 |  |

#### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |            |
| Off-Road | 1.4716 | 13.4438 | 16.1668 | 0.0270 |               | 0.6133       | 0.6133     |                | 0.5769        | 0.5769      | 0.0000   | 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      | 0.0000   | 2,555.6989 | 2,555.6989 | 0.6044 |     | 2,570.8077 |

### 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 | 0.0000 | 0.0000     |
| Vendor   | 0.2426 | 8.6655 | 2.5301  | 0.0300 | 0.7853        | 0.0101       | 0.7954     | 0.2261         | 9.6600e-003   | 0.2357      | 3,242.2886 | 3,242.2886 | 0.2119    |        |        | 3,247.5848 |
| Worker   | 1.5469 | 0.9030 | 11.2674 | 0.0382 | 4.3210        | 0.0281       | 4.3491     | 1.1461         | 0.0259        | 1.1720      | 3,812.6432 | 3,812.6432 | 0.0943    |        |        | 3,815.0011 |
| Total    | 1.7895 | 9.5686 | 13.7975 | 0.0682 | 5.1062        | 0.0382       | 5.1444     | 1.3722         | 0.0355        | 1.4077      | 7,054.9318 | 7,054.9318 | 0.3062    |        |        | 7,062.5859 |

### **3.6 Building Construction - 2025**

#### 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 | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 2,556.4744 | 2,556.4744 | 0.6010    |     |     | 2,571.4981 |

|       |        |         |         |        |  |        |        |  |        |        |  |                |            |        |  |                |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|
| Total | 1.3674 | 12.4697 | 16.0847 | 0.0270 |  | 0.5276 | 0.5276 |  | 0.4963 | 0.4963 |  | 2,556.474<br>4 | 2,556.4744 | 0.6010 |  | 2,571.498<br>1 |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|

### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4        | N2O    | CO2e |
|----------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|------------|--------|------|
| Category | lb/day |        |         |        |               |              |            |                |               |             | lb/day     |            |           |            |        |      |
| Hauling  | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000     | 0.0000     | 0.0000    | 0.0000     | 0.0000 |      |
| Vendor   | 0.2355 | 8.5403 | 2.4807  | 0.0298 | 0.7853        | 9.8200e-003  | 0.7951     | 0.2261         | 9.3900e-003   | 0.2354      | 3,222.3405 | 3,222.3405 | 0.2098    | 3,227.5842 |        |      |
| Worker   | 1.4759 | 0.8327 | 10.5249 | 0.0367 | 4.3210        | 0.0277       | 4.3486     | 1.1461         | 0.0255        | 1.1716      | 3,658.3911 | 3,658.3911 | 0.0871    | 3,660.5687 |        |      |
| Total    | 1.7114 | 9.3730 | 13.0056 | 0.0664 | 5.1062        | 0.0375       | 5.1437     | 1.3722         | 0.0349        | 1.4070      | 6,880.7317 | 6,880.7317 | 0.2969    | 6,888.1529 |        |      |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |            |
| Off-Road | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 0.0000   | 2,556.4744 | 2,556.4744 | 0.6010 |     | 2,571.4981 |
| Total    | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 0.0000   | 2,556.4744 | 2,556.4744 | 0.6010 |     | 2,571.4981 |

### 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     | 0.0000     | 0.0000 |  |
| Vendor   | 0.2355 | 8.5403 | 2.4807  | 0.0298 | 0.7853        | 9.8200e-003  | 0.7951     | 0.2261         | 9.3900e-003   | 0.2354      | 3,222.3405 | 3,222.3405 | 0.2098    | 3,227.5842 |            |        |  |
| Worker   | 1.4759 | 0.8327 | 10.5249 | 0.0367 | 4.3210        | 0.0277       | 4.3486     | 1.1461         | 0.0255        | 1.1716      | 3,658.3911 | 3,658.3911 | 0.0871    | 3,660.5687 |            |        |  |
| Total    | 1.7114 | 9.3730 | 13.0056 | 0.0664 | 5.1062        | 0.0375       | 5.1437     | 1.3722         | 0.0349        | 1.4070      | 6,880.7317 | 6,880.7317 | 0.2969    |            | 6,888.1529 |        |  |

### 3.6 Building Construction - 2026

#### 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 | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 2,556.4744 | 2,556.4744 | 0.6010    |     | 2,571.4981 |      |
| Total    | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 2,556.4744 | 2,556.4744 | 0.6010    |     | 2,571.4981 |      |

#### Unmitigated Construction Off-Site

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

|         |        |        |         |        |        |             |        |        |             |        |        |           |            |        |           |
|---------|--------|--------|---------|--------|--------|-------------|--------|--------|-------------|--------|--------|-----------|------------|--------|-----------|
| Hauling | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000    | 0.0000     | 0.0000 | 0.0000    |
| Vendor  | 0.2295 | 8.4191 | 2.4466  | 0.0295 | 0.7853 | 9.5500e-003 | 0.7948 | 0.2261 | 9.1300e-003 | 0.2352 | 1      | 3,203.672 | 3,203.6721 | 0.2077 | 3,208.865 |
| Worker  | 1.4135 | 0.7746 | 9.8985  | 0.0353 | 4.3210 | 0.0268      | 4.3478 | 1.1461 | 0.0247      | 1.1708 | 5      | 3,524.380 | 3,524.3805 | 0.0812 | 3,526.410 |
| Total   | 1.6430 | 9.1937 | 12.3451 | 0.0649 | 5.1062 | 0.0364      | 5.1426 | 1.3722 | 0.0338      | 1.4060 | 5      | 6,728.052 | 6,728.0525 | 0.2889 | 6,735.275 |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4        | N2O    | CO2e      |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------------|--------|-----------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |           |            |        |           |
| Off-Road | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               |              | 0.5276     | 0.5276         |               | 0.4963      | 0.4963   | 0.0000    | 2,556.474 | 2,556.4744 | 0.6010 | 2,571.498 |
| Total    | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               |              | 0.5276     | 0.5276         |               | 0.4963      | 0.4963   | 0.0000    | 2,556.474 | 2,556.4744 | 0.6010 | 2,571.498 |

### 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 | 0.0000    |      |
| Vendor   | 0.2295 | 8.4191 | 2.4466  | 0.0295 | 0.7853        | 9.5500e-003  | 0.7948     | 0.2261         | 9.1300e-003   | 0.2352      | 1        | 3,203.672 | 3,203.6721 | 0.2077 | 3,208.865 |      |
| Worker   | 1.4135 | 0.7746 | 9.8985  | 0.0353 | 4.3210        | 0.0268       | 4.3478     | 1.1461         | 0.0247        | 1.1708      | 5        | 3,524.380 | 3,524.3805 | 0.0812 | 3,526.410 |      |
| Total    | 1.6430 | 9.1937 | 12.3451 | 0.0649 | 5.1062        | 0.0364       | 5.1426     | 1.3722         | 0.0338        | 1.4060      | 5        | 6,728.052 | 6,728.0525 | 0.2889 | 6,735.275 |      |

### 3.7 Paving 2 - paved areas - 2025

#### Unmitigated Construction On-Site

|          | ROG    | NOx    | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e   |
|----------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|------------|-----------|--------|----------------|--------|
| Category | lb/day |        |         |        |               |              |            |                |               |             | lb/day         |            |           |        |                |        |
| Off-Road | 0.9152 | 8.5816 | 14.5780 | 0.0228 |               | 0.4185       | 0.4185     |                | 0.3850        | 0.3850      | 2,206.745<br>2 | 2,206.7452 | 0.7137    |        | 2,224.587<br>8 |        |
| Paving   | 0.2911 |        |         |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |                | 0.0000     |           | 0.0000 |                | 0.0000 |
| Total    | 1.2063 | 8.5816 | 14.5780 | 0.0228 |               | 0.4185       | 0.4185     |                | 0.3850        | 0.3850      | 2,206.745<br>2 | 2,206.7452 | 0.7137    |        | 2,224.587<br>8 |        |

#### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4    | N2O      | CO2e   |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|--------|----------|--------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |             |        |          |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Worker   | 0.0449 | 0.0253 | 0.3202 | 1.1200e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      | 111.2819 | 111.2819  | 2.6500e-003 |        | 111.3481 |        |
| Total    | 0.0449 | 0.0253 | 0.3202 | 1.1200e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      | 111.2819 | 111.2819  | 2.6500e-003 |        | 111.3481 |        |

#### 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 | 0.9152 | 8.5816 | 14.5780 | 0.0228 |               |              | 0.4185     | 0.4185         |               | 0.3850      | 0.3850   | 0.0000    | 2,206.7452 | 2,206.7452 | 0.7137 |      | 2,224.5878 |
| Paving   | 0.2911 |        |         |        |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           |            | 0.0000     |        |      | 0.0000     |
| Total    | 1.2063 | 8.5816 | 14.5780 | 0.0228 |               |              | 0.4185     | 0.4185         |               | 0.3850      | 0.3850   | 0.0000    | 2,206.7452 | 2,206.7452 | 0.7137 |      | 2,224.5878 |

### 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      |     | 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   |
| Worker   | 0.0449 | 0.0253 | 0.3202 | 1.1200e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      |          | 111.2819  | 111.2819  | 2.6500e-003 |     | 111.3481 |
| Total    | 0.0449 | 0.0253 | 0.3202 | 1.1200e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      |          | 111.2819  | 111.2819  | 2.6500e-003 |     | 111.3481 |

### **3.8 Architectural Coating - 2026**

#### 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 | 48.5686 |     |    |     |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           | 0.0000    |     |     | 0.0000 |

|          |         |        |        |             |  |        |        |  |        |        |  |          |          |        |  |          |
|----------|---------|--------|--------|-------------|--|--------|--------|--|--------|--------|--|----------|----------|--------|--|----------|
| Off-Road | 0.1709  | 1.1455 | 1.8091 | 2.9700e-003 |  | 0.0515 | 0.0515 |  | 0.0515 | 0.0515 |  | 281.4481 | 281.4481 | 0.0154 |  | 281.8319 |
| Total    | 48.7395 | 1.1455 | 1.8091 | 2.9700e-003 |  | 0.0515 | 0.0515 |  | 0.0515 | 0.0515 |  | 281.4481 | 281.4481 | 0.0154 |  | 281.8319 |

### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O      | CO2e |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|----------|------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |           |        |          |      |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000   |      |
| 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   |      |
| Worker   | 0.2848 | 0.1561 | 1.9948 | 7.1200e-003 | 0.8708        | 5.4000e-003  | 0.8762     | 0.2310         | 4.9700e-003   | 0.2359      | 710.2364 | 710.2364  | 0.0164    |        | 710.6454 |      |
| Total    | 0.2848 | 0.1561 | 1.9948 | 7.1200e-003 | 0.8708        | 5.4000e-003  | 0.8762     | 0.2310         | 4.9700e-003   | 0.2359      | 710.2364 | 710.2364  | 0.0164    |        | 710.6454 |      |

### 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 | 48.5686 |        |        |             |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 |          |
| Off-Road        | 0.1709  | 1.1455 | 1.8091 | 2.9700e-003 |               | 0.0515       | 0.0515     |                | 0.0515        | 0.0515      | 0.0000   | 281.4481  | 281.4481  | 0.0154 |        | 281.8319 |
| Total           | 48.7395 | 1.1455 | 1.8091 | 2.9700e-003 |               | 0.0515       | 0.0515     |                | 0.0515        | 0.0515      | 0.0000   | 281.4481  | 281.4481  | 0.0154 |        | 281.8319 |

### 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   | 0.2848        | 0.1561        | 1.9948        | 7.1200e-003        | 0.8708        | 5.4000e-003        | 0.8762        | 0.2310         | 4.9700e-003        | 0.2359        |          | 710.2364        | 710.2364        | 0.0164        |     | 710.6454        |  |  |
| Total    | <b>0.2848</b> | <b>0.1561</b> | <b>1.9948</b> | <b>7.1200e-003</b> | <b>0.8708</b> | <b>5.4000e-003</b> | <b>0.8762</b> | <b>0.2310</b>  | <b>4.9700e-003</b> | <b>0.2359</b> |          | <b>710.2364</b> | <b>710.2364</b> | <b>0.0164</b> |     | <b>710.6454</b> |  |  |

## 4.0 Operational Detail - Mobile

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### 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   | 5.9978 | 22.4190 | 67.3470 | 0.2549 | 24.4528       | 0.1927       | 24.6455    | 6.5340         | 0.1792        | 6.7132      |          | 26,003.63 | 26,003.636 | 1.2479 |     | 26,034.83 |  |
| Unmitigated | 5.9978 | 22.4190 | 67.3470 | 0.2549 | 24.4528       | 0.1927       | 24.6455    | 6.5340         | 0.1792        | 6.7132      |          | 26,003.63 | 26,003.636 | 1.2479 |     | 26,034.83 |  |

### 4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate |          |        | Unmitigated |            | Mitigated |  |
|----------|-------------------------|----------|--------|-------------|------------|-----------|--|
|          | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT |           |  |

|                           |          |          |          |            |            |
|---------------------------|----------|----------|----------|------------|------------|
| Apartments Mid Rise       | 1,548.00 | 1,612.50 | 1362.24  | 4,370,548  | 4,370,548  |
| Condo/Townhouse High Rise | 1,296.00 | 1,334.88 | 1035.18  | 3,609,944  | 3,609,944  |
| General Office Building   | 60.00    | 13.38    | 5.70     | 108,932    | 108,932    |
| Health Club               | 0.00     | 0.00     | 0.00     |            |            |
| Parking Lot               | 0.00     | 0.00     | 0.00     |            |            |
| Quality Restaurant        | 480.00   | 283.08   | 216.48   | 491,337    | 491,337    |
| Retirement Community      | 360.00   | 562.50   | 475.20   | 1,157,499  | 1,157,499  |
| Strip Mall                | 520.00   | 360.44   | 239.20   | 703,936    | 703,936    |
| Total                     | 4,264.00 | 4,166.78 | 3,334.00 | 10,442,196 | 10,442,196 |

#### 4.3 Trip Type Information

| Land Use                  | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|---------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                           | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| Apartments Mid Rise       | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| Condo/Townhouse High Rise | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| General Office Building   | 9.50       | 7.30       | 7.30        | 33.00     | 48.00      | 19.00       | 77             | 19       | 4       |
| Health Club               | 9.50       | 7.30       | 7.30        | 16.90     | 64.10      | 19.00       | 52             | 39       | 9       |
| Parking Lot               | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |
| Quality Restaurant        | 9.50       | 7.30       | 7.30        | 12.00     | 69.00      | 19.00       | 38             | 18       | 44      |
| Retirement Community      | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| Strip Mall                | 9.50       | 7.30       | 7.30        | 16.60     | 64.40      | 19.00       | 45             | 40       | 15      |

#### 4.4 Fleet Mix

| Land Use                  | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise       | 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 |
| Condo/Townhouse High Rise | 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 |
| General Office Building   | 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 |
| Health Club               | 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 |
| Parking Lot               | 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 |
| Quality Restaurant        | 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 |
| Retirement Community      | 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 |
| Strip Mall                | 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

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|                        | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 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   | 0.1402 | 1.2082 | 0.5827 | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |          | 1,529.7711 | 1,529.7711 | 0.0293 | 0.0281 | 1,538.8618 |  |
| NaturalGas Unmitigated | 0.1402 | 1.2082 | 0.5827 | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |          | 1,529.7711 | 1,529.7711 | 0.0293 | 0.0281 | 1,538.8618 |  |

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

|                           | NaturalGas Use | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O         | CO2e     |  |
|---------------------------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|--|
| Land Use                  | kBTU/yr        | lb/day      |             |             |             |               |              |             |                |               |             |          | lb/day    |           |             |             |          |  |
| Apartments Mid Rise       | 5251           | 0.0566      | 0.4839      | 0.2059      | 3.0900e-003 |               | 0.0391       | 0.0391      |                | 0.0391        | 0.0391      |          | 617.7647  | 617.7647  | 0.0118      | 0.0113      | 621.4358 |  |
| Condo/Townhouse High Rise | 3297.14        | 0.0356      | 0.3039      | 0.1293      | 1.9400e-003 |               | 0.0246       | 0.0246      |                | 0.0246        | 0.0246      |          | 387.8988  | 387.8988  | 7.4300e-003 | 7.1100e-003 | 390.2038 |  |
| General Office Building   | 165.945        | 1.7900e-003 | 0.0163      | 0.0137      | 1.0000e-004 |               | 1.2400e-003  | 1.2400e-003 |                | 1.2400e-003   | 1.2400e-003 |          | 19.5230   | 19.5230   | 3.7000e-004 | 3.6000e-004 | 19.6390  |  |
| Health Club               | 63.3425        | 6.8000e-004 | 6.2100e-003 | 5.2200e-003 | 4.0000e-005 |               | 4.7000e-004  | 4.7000e-004 |                | 4.7000e-004   | 4.7000e-004 |          | 7.4521    | 7.4521    | 1.4000e-004 | 1.4000e-004 | 7.4963   |  |
| Parking Lot               | 0              | 0.0000      | 0.0000      | 0.0000      | 0.0000      |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      |          | 0.0000    | 0.0000    | 0.0000      | 0.0000      | 0.0000   |  |
| Quality Restaurant        | 1433.26        | 0.0155      | 0.1405      | 0.1180      | 8.4000e-004 |               | 0.0107       | 0.0107      |                | 0.0107        | 0.0107      |          | 168.6189  | 168.6189  | 3.2300e-003 | 3.0900e-003 | 169.6209 |  |
| Retirement Community      | 2767.93        | 0.0299      | 0.2551      | 0.1086      | 1.6300e-003 |               | 0.0206       | 0.0206      |                | 0.0206        | 0.0206      |          | 325.6387  | 325.6387  | 6.2400e-003 | 5.9700e-003 | 327.5738 |  |

|            |         |             |             |             |             |  |             |             |             |             |        |        |            |             |             |        |            |
|------------|---------|-------------|-------------|-------------|-------------|--|-------------|-------------|-------------|-------------|--------|--------|------------|-------------|-------------|--------|------------|
| Strip Mall | 24.4384 | 2.6000e-004 | 2.4000e-003 | 2.0100e-003 | 1.0000e-005 |  | 1.8000e-004 | 1.8000e-004 | 1.8000e-004 | 1.8000e-004 |        | 2.8751 | 2.8751     | 6.0000e-005 | 5.0000e-005 | 2.8922 |            |
| Total      |         | 0.1402      | 1.2083      | 0.5827      | 7.6500e-003 |  | 0.0969      | 0.0969      |             | 0.0969      | 0.0969 |        | 1,529.7711 | 1,529.7711  | 0.0293      | 0.0281 | 1,538.8618 |

## Mitigated

|                           | NaturalGas Use | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4         | N2O         | CO2e       |
|---------------------------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|------------|------------|-------------|-------------|------------|
| Land Use                  | kBTU/yr        | lb/day      |             |             |             |               |              |             |                |               |             | lb/day   |            |            |             |             |            |
| Apartments Mid Rise       | 5.251          | 0.0566      | 0.4839      | 0.2059      | 3.0900e-003 |               | 0.0391       | 0.0391      |                | 0.0391        | 0.0391      |          | 617.7647   | 617.7647   | 0.0118      | 0.0113      | 621.4358   |
| Condo/Townhouse High Rise | 3.29714        | 0.0356      | 0.3039      | 0.1293      | 1.9400e-003 |               | 0.0246       | 0.0246      |                | 0.0246        | 0.0246      |          | 387.8988   | 387.8988   | 7.4300e-003 | 7.1100e-003 | 390.2038   |
| General Office Building   | 0.165945       | 1.7900e-003 | 0.0163      | 0.0137      | 1.0000e-004 |               | 1.2400e-003  | 1.2400e-003 |                | 1.2400e-003   | 1.2400e-003 |          | 19.5230    | 19.5230    | 3.7000e-004 | 3.6000e-004 | 19.6390    |
| Health Club               | 0.0633425      | 6.8000e-004 | 6.2100e-003 | 5.2200e-003 | 4.0000e-005 |               | 4.7000e-004  | 4.7000e-004 |                | 4.7000e-004   | 4.7000e-004 |          | 7.4521     | 7.4521     | 1.4000e-004 | 1.4000e-004 | 7.4963     |
| Parking Lot               | 0              | 0.0000      | 0.0000      | 0.0000      | 0.0000      |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      |          | 0.0000     | 0.0000     | 0.0000      | 0.0000      | 0.0000     |
| Quality Restaurant        | 1.43326        | 0.0155      | 0.1405      | 0.1180      | 8.4000e-004 |               | 0.0107       | 0.0107      |                | 0.0107        | 0.0107      |          | 168.6189   | 168.6189   | 3.2300e-003 | 3.0900e-003 | 169.6209   |
| Retirement Community      | 2.76793        | 0.0299      | 0.2551      | 0.1086      | 1.6300e-003 |               | 0.0206       | 0.0206      |                | 0.0206        | 0.0206      |          | 325.6387   | 325.6387   | 6.2400e-003 | 5.9700e-003 | 327.5738   |
| Strip Mall                | 0.0244384      | 2.6000e-004 | 2.4000e-003 | 2.0100e-003 | 1.0000e-005 |               | 1.8000e-004  | 1.8000e-004 |                | 1.8000e-004   | 1.8000e-004 |          | 2.8751     | 2.8751     | 6.0000e-005 | 5.0000e-005 | 2.8922     |
| Total                     |                | 0.1402      | 1.2083      | 0.5827      | 7.6500e-003 |               | 0.0969       | 0.0969      |                | 0.0969        | 0.0969      |          | 1,529.7711 | 1,529.7711 | 0.0293      | 0.0281      | 1,538.8618 |

## 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   | 29.3492 | 7.0159 | 159.2190 | 0.4075 |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6 | 8,787.5902 | 13.1437 | 0.1089 | 9,148.635<br>2 |
| Unmitigated | 29.3492 | 7.0159 | 159.2190 | 0.4075 |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6 | 8,787.5902 | 13.1437 | 0.1089 | 9,148.635<br>2 |

## 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 | 4.2431         |               |                 |               |               | 0.0000         | 0.0000         |                | 0.0000         | 0.0000         |                        |                        | 0.0000            |                |               | 0.0000                 |
| Consumer Products     | 10.6156        |               |                 |               |               | 0.0000         | 0.0000         |                | 0.0000         | 0.0000         |                        |                        | 0.0000            |                |               | 0.0000                 |
| Hearth                | 13.2196        | 6.5308        | 117.0888        | 0.4053        |               | 19.1542        | 19.1542        |                | 19.1542        | 19.1542        | 2,771.625<br>6         | 5,940.000<br>0         | 8,711.6256        | 13.0706        | 0.1089        | 9,070.843<br>7         |
| Landscaping           | 1.2708         | 0.4851        | 42.1302         | 2.2300e-003   |               | 0.2336         | 0.2336         |                | 0.2336         | 0.2336         |                        | 75.9646                | 75.9646           | 0.0731         |               | 77.7915                |
| <b>Total</b>          | <b>29.3492</b> | <b>7.0159</b> | <b>159.2190</b> | <b>0.4075</b> |               | <b>19.3877</b> | <b>19.3877</b> |                | <b>19.3877</b> | <b>19.3877</b> | <b>2,771.625<br/>6</b> | <b>6,015.964<br/>6</b> | <b>8,787.5902</b> | <b>13.1437</b> | <b>0.1089</b> | <b>9,148.635<br/>2</b> |

### Mitigated

|                       | ROG    | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e   |
|-----------------------|--------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|--------|
| SubCategory           | lb/day |     |    |     |               |              |            |                |               |             | lb/day   |           |           |     |     |        |
| Architectural Coating | 4.2431 |     |    |     |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |          |           | 0.0000    |     |     | 0.0000 |

|                   |         |        |          |             |         |         |  |         |         |           |           |            |         |        |           |   |
|-------------------|---------|--------|----------|-------------|---------|---------|--|---------|---------|-----------|-----------|------------|---------|--------|-----------|---|
| Consumer Products | 10.6156 |        |          |             | 0.0000  | 0.0000  |  | 0.0000  | 0.0000  |           | 0.0000    |            | 0.0000  |        | 0.0000    |   |
| Hearth            | 13.2196 | 6.5308 | 117.0888 | 0.4053      | 19.1542 | 19.1542 |  | 19.1542 | 19.1542 | 2,771.625 | 5,940.000 | 8,711.6256 | 13.0706 | 0.1089 | 9,070.843 | 7 |
| Landscaping       | 1.2708  | 0.4851 | 42.1302  | 2.2300e-003 | 0.2336  | 0.2336  |  | 0.2336  | 0.2336  |           | 75.9646   | 75.9646    | 0.0731  |        | 77.7915   |   |
| Total             | 29.3492 | 7.0159 | 159.2190 | 0.4075      | 19.3877 | 19.3877 |  | 19.3877 | 19.3877 | 2,771.625 | 6,015.964 | 8,787.5902 | 13.1437 | 0.1089 | 9,148.635 | 2 |

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

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### 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

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## Palomar Heights - San Diego County APCD Air District, Winter

**Palomar Heights**  
**San Diego County APCD Air District, Winter**

## 1.0 Project Characteristics

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### 1.1 Land Usage

| Land Uses                 | Size   | Metric        | Lot Acreage | Floor Surface Area | Population |
|---------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building   | 3.00   | 1000sqft      | 0.07        | 3,000.00           | 0          |
| Parking Lot               | 915.00 | Space         | 7.00        | 366,000.00         | 0          |
| Health Club               | 2.00   | 1000sqft      | 0.05        | 2,000.00           | 0          |
| Quality Restaurant        | 3.00   | 1000sqft      | 0.07        | 3,000.00           | 0          |
| Apartments Mid Rise       | 258.00 | Dwelling Unit | 3.00        | 258,000.00         | 738        |
| Condo/Townhouse High Rise | 162.00 | Dwelling Unit | 2.53        | 162,000.00         | 463        |
| Retirement Community      | 90.00  | Dwelling Unit | 1.00        | 58,000.00          | 257        |
| Strip Mall                | 4.00   | 1000sqft      | 0.09        | 4,000.00           | 0          |

### 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<br>(lb/MWhr) | 640.44                   | CH4 Intensity<br>(lb/MWhr) | 0.029 | N2O Intensity<br>(lb/MWhr) | 0.006 |

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

Project Characteristics - The CO2 intensity factor for SDG&E was modified to reflect compliance with the RPS for the operational year.

Land Use - Building square footages were updated to reflect the project specifics.

Construction Phase - The construction schedule was provided by the project applicant.

Trips and VMT - Construction trip data was provided by the project applicant.

Demolition - Demolition of the existing 392,001 hospital campus.

Grading - model defaults.

Architectural Coating - Compliance with SDAPCD rule 67.0.1

Vehicle Trips - Consistent with traffic report

Woodstoves - No wood fireplaces

Energy Use - Model defaults.

Construction Off-road Equipment Mitigation - Compliance with SDAPCD Fugitive dust rule

Waste Mitigation - 75% Diversion rate in compliance with AB 341.

| Table Name              | Column Name                       | Default Value | New Value    |
|-------------------------|-----------------------------------|---------------|--------------|
| tblArchitecturalCoating | ConstArea_Nonresidential_Exterior | 6,000.00      | 3,500.00     |
| tblArchitecturalCoating | ConstArea_Nonresidential_Interior | 18,000.00     | 10,500.00    |
| tblArchitecturalCoating | ConstArea_Residential_Exterior    | 322,650.00    | 343,389.00   |
| tblArchitecturalCoating | ConstArea_Residential_Interior    | 967,950.00    | 1,030,168.00 |
| tblArchitecturalCoating | EF_Nonresidential_Exterior        | 250.00        | 100.00       |
| tblArchitecturalCoating | EF_Nonresidential_Interior        | 250.00        | 50.00        |
| tblArchitecturalCoating | EF_Residential_Exterior           | 250.00        | 100.00       |
| tblArchitecturalCoating | EF_Residential_Interior           | 250.00        | 50.00        |
| tblConstDustMitigation  | WaterUnpavedRoadVehicleSpeed      | 0             | 15           |
| tblConstructionPhase    | NumDays                           | 20.00         | 88.00        |
| tblConstructionPhase    | NumDays                           | 300.00        | 1,129.00     |
| tblConstructionPhase    | NumDays                           | 20.00         | 153.00       |
| tblConstructionPhase    | NumDays                           | 30.00         | 152.00       |
| tblConstructionPhase    | NumDays                           | 20.00         | 65.00        |
| tblConstructionPhase    | NumDays                           | 20.00         | 63.00        |
| tblConstructionPhase    | NumDays                           | 10.00         | 85.00        |
| tblFireplaces           | NumberWood                        | 90.30         | 0.00         |
| tblFireplaces           | NumberWood                        | 56.70         | 0.00         |
| tblFireplaces           | NumberWood                        | 31.50         | 0.00         |

|                           |                    |           |           |
|---------------------------|--------------------|-----------|-----------|
| tblGrading                | MaterialImported   | 0.00      | 15,470.00 |
| tblLandUse                | LandUseSquareFeet  | 90,000.00 | 58,000.00 |
| tblLandUse                | LotAcreage         | 8.23      | 7.00      |
| tblLandUse                | LotAcreage         | 6.79      | 3.00      |
| tblLandUse                | LotAcreage         | 18.00     | 1.00      |
| tblProjectCharacteristics | CO2IntensityFactor | 720.49    | 640.44    |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 525.00    | 526.00    |
| tblTripsAndVMT            | WorkerTripNumber   | 15.00     | 16.00     |
| tblTripsAndVMT            | WorkerTripNumber   | 105.00    | 106.00    |
| tblVehicleTrips           | ST_TR              | 6.39      | 6.25      |
| tblVehicleTrips           | ST_TR              | 4.31      | 8.24      |
| tblVehicleTrips           | ST_TR              | 2.46      | 4.46      |
| tblVehicleTrips           | ST_TR              | 20.87     | 0.00      |
| tblVehicleTrips           | ST_TR              | 2.03      | 6.25      |
| tblVehicleTrips           | ST_TR              | 42.04     | 90.11     |
| tblVehicleTrips           | SU_TR              | 5.86      | 5.28      |
| tblVehicleTrips           | SU_TR              | 3.43      | 6.39      |
| tblVehicleTrips           | SU_TR              | 1.05      | 1.90      |
| tblVehicleTrips           | SU_TR              | 26.73     | 0.00      |
| tblVehicleTrips           | SU_TR              | 1.95      | 5.28      |
| tblVehicleTrips           | SU_TR              | 20.43     | 59.80     |
| tblVehicleTrips           | WD_TR              | 6.65      | 6.00      |
| tblVehicleTrips           | WD_TR              | 4.18      | 8.00      |
| tblVehicleTrips           | WD_TR              | 11.03     | 20.00     |
| tblVehicleTrips           | WD_TR              | 32.93     | 0.00      |
| tblVehicleTrips           | WD_TR              | 89.95     | 160.00    |
| tblVehicleTrips           | WD_TR              | 2.40      | 4.00      |
| tblVehicleTrips           | WD_TR              | 44.32     | 130.00    |

## 2.0 Emissions Summary

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### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

|         | ROG     | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O    | CO2e        |
|---------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|-------------|
| Year    | lb/day  |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |        |             |
| 2020    | 3.4733  | 36.5276 | 22.9677 | 0.0491 | 2.8886        | 1.6702       | 4.5588     | 0.4774         | 1.5528        | 2.0302      | 0.0000   | 4,855.0939 | 4,855.0939 | 1.1527 | 0.0000 | 4,883.9107  |
| 2021    | 5.9469  | 62.0122 | 47.1002 | 0.0952 | 18.2141       | 2.6731       | 20.2596    | 9.9699         | 2.4596        | 11.8517     | 0.0000   | 9,326.0282 | 9,326.0282 | 2.7422 | 0.0000 | 9,394.5840  |
| 2022    | 5.4498  | 39.1121 | 46.6566 | 0.1201 | 5.2377        | 1.4293       | 6.6669     | 1.4070         | 1.3326        | 2.7397      | 0.0000   | 12,014.75  | 12,014.752 | 1.6832 | 0.0000 | 12,056.8337 |
| 2023    | 3.6948  | 24.2380 | 30.3900 | 0.0938 | 5.1062        | 0.7393       | 5.8455     | 1.3722         | 0.6952        | 2.0674      | 0.0000   | 9,460.5781 | 9,460.5781 | 0.9305 | 0.0000 | 9,483.8413  |
| 2024    | 3.4964  | 23.0835 | 29.4718 | 0.0921 | 5.1062        | 0.6520       | 5.7583     | 1.3722         | 0.6129        | 1.9851      | 0.0000   | 9,294.5314 | 9,294.5314 | 0.9162 | 0.0000 | 9,317.4358  |
| 2025    | 4.5656  | 30.5155 | 43.5054 | 0.1143 | 5.2377        | 0.9849       | 6.2225     | 1.4070         | 0.9173        | 2.3244      | 0.0000   | 11,442.93  | 11,442.938 | 1.6195 | 0.0000 | 11,483.4266 |
| 2026    | 52.3015 | 23.0397 | 31.6631 | 0.0986 | 5.9770        | 0.6212       | 6.5982     | 1.6031         | 0.5869        | 2.1901      | 0.0000   | 9,936.5421 | 9,936.5421 | 0.9260 | 0.0000 | 9,959.6909  |
| Maximum | 52.3015 | 62.0122 | 47.1002 | 0.1201 | 18.2141       | 2.6731       | 20.2596    | 9.9699         | 2.4596        | 11.8517     | 0.0000   | 12,014.75  | 12,014.752 | 2.7422 | 0.0000 | 12,056.8337 |

#### Mitigated Construction

|      | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4    | N2O    | CO2e       |
|------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|--------|--------|------------|
| Year | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |        |        |            |
| 2020 | 3.4733 | 36.5276 | 22.9677 | 0.0491 | 1.4841        | 1.6702       | 3.1544     | 0.2647         | 1.5528        | 1.8175      | 0.0000   | 4,855.093 | 4,855.0939 | 1.1527 | 0.0000 | 4,883.9107 |
| 2021 | 5.9469 | 62.0122 | 47.1002 | 0.0952 | 8.2777        | 2.6731       | 10.3232    | 4.5080         | 2.4596        | 6.3899      | 0.0000   | 9,326.028 | 9,326.0282 | 2.7422 | 0.0000 | 9,394.5839 |

|                   |         |         |         |        |               |              |            |                |               |             |          |                 |                 |        |        |                 |
|-------------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------------|-----------------|--------|--------|-----------------|
| 2022              | 5.4498  | 39.1121 | 46.6566 | 0.1201 | 5.2377        | 1.4293       | 6.6669     | 1.4070         | 1.3326        | 2.7397      | 0.0000   | 12,014.75<br>29 | 12,014.752<br>9 | 1.6832 | 0.0000 | 12,056.83<br>37 |
| 2023              | 3.6948  | 24.2380 | 30.3900 | 0.0938 | 5.1062        | 0.7393       | 5.8455     | 1.3722         | 0.6952        | 2.0674      | 0.0000   | 9,460.578<br>1  | 9,460.5781      | 0.9305 | 0.0000 | 9,483.841<br>3  |
| 2024              | 3.4964  | 23.0835 | 29.4718 | 0.0921 | 5.1062        | 0.6520       | 5.7583     | 1.3722         | 0.6129        | 1.9851      | 0.0000   | 9,294.531<br>4  | 9,294.5314      | 0.9162 | 0.0000 | 9,317.435<br>8  |
| 2025              | 4.5656  | 30.5155 | 43.5054 | 0.1143 | 5.2377        | 0.9849       | 6.2225     | 1.4070         | 0.9173        | 2.3244      | 0.0000   | 11,442.93<br>87 | 11,442.938<br>7 | 1.6195 | 0.0000 | 11,483.42<br>66 |
| 2026              | 52.3015 | 23.0397 | 31.6631 | 0.0986 | 5.9770        | 0.6212       | 6.5982     | 1.6031         | 0.5869        | 2.1901      | 0.0000   | 9,936.542<br>1  | 9,936.5421      | 0.9260 | 0.0000 | 9,959.690<br>9  |
| Maximum           | 52.3015 | 62.0122 | 47.1002 | 0.1201 | 8.2777        | 2.6731       | 10.3232    | 4.5080         | 2.4596        | 6.3899      | 0.0000   | 12,014.75<br>29 | 12,014.752<br>9 | 2.7422 | 0.0000 | 12,056.83<br>37 |
|                   | ROG     | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2        | Total CO2       | CH4    | N2O    | CO2e            |
| Percent Reduction | 0.00    | 0.00    | 0.00    | 0.00   | 23.74         | 0.00         | 20.28      | 32.23          | 0.00          | 22.53       | 0.00     | 0.00            | 0.00            | 0.00   | 0.00   | 0.00            |

## 2.2 Overall Operational

### Unmitigated Operational

|          | ROG     | NOx     | CO       | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio-CO2        | Total CO2       | CH4     | N2O    | CO2e            |
|----------|---------|---------|----------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------------|-----------------|-----------------|---------|--------|-----------------|
| Category | lb/day  |         |          |             |               |              |            |                |               |             |                |                 | lb/day          |         |        |                 |
| Area     | 29.3492 | 7.0159  | 159.2190 | 0.4075      |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6  | 8,787.5902      | 13.1437 | 0.1089 | 9,148.635<br>2  |
| Energy   | 0.1402  | 1.2082  | 0.5827   | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |                | 1,529.771<br>1  | 1,529.7711      | 0.0293  | 0.0281 | 1,538.861<br>8  |
| Mobile   | 5.7918  | 22.9625 | 66.2225  | 0.2419      | 24.4528       | 0.1936       | 24.6464    | 6.5340         | 0.1800        | 6.7141      |                | 24,683.21<br>89 | 24,683.218<br>9 | 1.2554  |        | 24,714.60<br>33 |
| Total    | 35.2812 | 31.1866 | 226.0242 | 0.6570      | 24.4528       | 19.6782      | 44.1310    | 6.5340         | 19.6647       | 26.1987     | 2,771.625<br>6 | 32,228.95<br>45 | 35,000.580<br>1 | 14.4284 | 0.1370 | 35,402.10<br>03 |

### 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     | 29.3492 | 7.0159  | 159.2190 | 0.4075      |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6  | 8,787.5902      | 13.1437 | 0.1089 | 9,148.635<br>2  |  |
| Energy   | 0.1402  | 1.2082  | 0.5827   | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |                | 1,529.771<br>1  | 1,529.7711      | 0.0293  | 0.0281 | 1,538.861<br>8  |  |
| Mobile   | 5.7918  | 22.9625 | 66.2225  | 0.2419      | 24.4528       | 0.1936       | 24.6464    | 6.5340         | 0.1800        | 6.7141      |                | 24,683.21<br>89 | 24,683.218<br>9 | 1.2554  |        | 24,714.60<br>33 |  |
| Total    | 35.2812 | 31.1866 | 226.0242 | 0.6570      | 24.4528       | 19.6782      | 44.1310    | 6.5340         | 19.6647       | 26.1987     | 2,771.625<br>6 | 32,228.95<br>45 | 35,000.580<br>1 | 14.4284 | 0.1370 | 35,402.10<br>03 |  |

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

### 3.0 Construction Detail

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#### Construction Phase

| Phase Number | Phase Name                            | Phase Type            | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|---------------------------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1            | Demolition                            | Demolition            | 6/1/2020   | 12/30/2020 | 5             | 153      |                   |
| 2            | Site Preparation                      | Site Preparation      | 1/4/2021   | 4/30/2021  | 5             | 85       |                   |
| 3            | Grading                               | Grading               | 5/1/2021   | 11/30/2021 | 5             | 152      |                   |
| 4            | Paving 1 - Internal road construction | Paving                | 11/30/2021 | 2/28/2022  | 5             | 65       |                   |
| 5            | Building Construction                 | Building Construction | 2/1/2022   | 5/29/2026  | 5             | 1129     |                   |
| 6            | Paving 2 - paved areas                | Paving                | 1/1/2025   | 3/28/2025  | 5             | 63       |                   |
| 7            | Architectural Coating                 | Architectural Coating | 1/2/2026   | 5/5/2026   | 5             | 88       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 380

Acres of Paving: 7

Residential Indoor: 1,030,168; Residential Outdoor: 343,389; Non-Residential Indoor: 10,500; Non-Residential Outdoor: 3,500; Striped

## OffRoad Equipment

| Phase Name                            | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|---------------------------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition                            | Concrete/Industrial Saws  | 1      | 8.00        | 81          | 0.73        |
| Demolition                            | Excavators                | 3      | 8.00        | 158         | 0.38        |
| Demolition                            | Rubber Tired Dozers       | 2      | 8.00        | 247         | 0.40        |
| Site Preparation                      | Rubber Tired Dozers       | 3      | 8.00        | 247         | 0.40        |
| Site Preparation                      | Tractors/Loaders/Backhoes | 4      | 8.00        | 97          | 0.37        |
| Grading                               | Excavators                | 2      | 8.00        | 158         | 0.38        |
| Grading                               | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Grading                               | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading                               | Scrapers                  | 2      | 8.00        | 367         | 0.48        |
| Grading                               | Tractors/Loaders/Backhoes | 2      | 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 1 - Internal road construction | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving 1 - Internal road construction | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving 1 - Internal road construction | Rollers                   | 2      | 8.00        | 80          | 0.38        |
| Paving 2 - paved areas                | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving 2 - paved areas                | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving 2 - paved areas                | 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 |
|------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition       | 6                       | 16.00              | 0.00               | 1,783.00            | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation | 7                       | 18.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

|   |   |        |        |          |       |      |       |        |         |      |
|---|---|--------|--------|----------|-------|------|-------|--------|---------|------|
| Grading   | 8 | 20.00  | 0.00   | 1,530.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction                             | 9 | 526.00 | 116.00 | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving 1 - Internal<br>road construction<br>areas | 6 | 16.00  | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving 2 - paved                                  | 6 | 16.00  | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating                             | 1 | 106.00 | 0.00   | 0.00     | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

### 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e       |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |            |
| Fugitive Dust |        |         |         |        | 2.5535        | 0.0000       | 2.5535     | 0.3867         | 0.0000        | 0.3867      |          |            | 0.0000     |        |     | 0.0000     |
| Off-Road      | 3.3121 | 33.2010 | 21.7532 | 0.0388 |               | 1.6587       | 1.6587     |                | 1.5419        | 1.5419      |          | 3,747.7049 | 3,747.7049 | 1.0580 |     | 3,774.1536 |
| Total         | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 2.5535        | 1.6587       | 4.2122     | 0.3867         | 1.5419        | 1.9285      |          | 3,747.7049 | 3,747.7049 | 1.0580 |     | 3,774.1536 |

#### 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  | 0.0947 | 3.2822 | 0.7869 | 8.9700e-003 | 0.2036        | 0.0106       | 0.2142     | 0.0558         | 0.0101        | 0.0659      |          |           | 980.8078  | 980.8078 | 0.0909 |      | 983.0807 |

|        |        |        |        |             |        |             |        |        |             |        |            |            |             |          |            |        |
|--------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|------------|------------|-------------|----------|------------|--------|
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000     | 0.0000     | 0.0000      | 0.0000   | 0.0000     | 0.0000 |
| Worker | 0.0665 | 0.0444 | 0.4276 | 1.2700e-003 | 0.1314 | 9.2000e-004 | 0.1324 | 0.0349 | 8.5000e-004 | 0.0357 | 126.5811   | 126.5811   | 3.8100e-003 | 126.6764 |            |        |
| Total  | 0.1612 | 3.3266 | 1.2145 | 0.0102      | 0.3351 | 0.0115      | 0.3466 | 0.0907 | 0.0110      | 0.1017 | 1,107.3889 | 1,107.3889 | 0.0947      |          | 1,109.7571 |        |

### Mitigated Construction On-Site

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O    | CO2e       |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |        |            |
| Fugitive Dust |        |         |         |        | 1.1491        | 0.0000       | 1.1491     | 0.1740         | 0.0000        | 0.1740      |          |            | 0.0000     |        | 0.0000 |            |
| Off-Road      | 3.3121 | 33.2010 | 21.7532 | 0.0388 |               | 1.6587       | 1.6587     |                | 1.5419        | 1.5419      | 0.0000   | 3,747.7049 | 3,747.7049 | 1.0580 |        | 3,774.1536 |
| Total         | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 1.1491        | 1.6587       | 2.8078     | 0.1740         | 1.5419        | 1.7159      | 0.0000   | 3,747.7049 | 3,747.7049 | 1.0580 |        | 3,774.1536 |

### 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  | 0.0947 | 3.2822 | 0.7869 | 8.9700e-003 | 0.2036        | 0.0106       | 0.2142     | 0.0558         | 0.0101        | 0.0659      |            |            | 980.8078    | 980.8078 | 0.0909     |      |
| 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     |      |
| Worker   | 0.0665 | 0.0444 | 0.4276 | 1.2700e-003 | 0.1314        | 9.2000e-004  | 0.1324     | 0.0349         | 8.5000e-004   | 0.0357      | 126.5811   | 126.5811   | 3.8100e-003 | 126.6764 |            |      |
| Total    | 0.1612 | 3.3266 | 1.2145 | 0.0102      | 0.3351        | 0.0115       | 0.3466     | 0.0907         | 0.0110        | 0.1017      | 1,107.3889 | 1,107.3889 | 0.0947      |          | 1,109.7571 |      |

### **3.3 Site Preparation - 2021**

## **Unmitigated Construction On-Site**

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10  | Exhaust PM10  | PM10 Total     | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total    | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e   |                  |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|--------|------------------|
| Category      | lb/day        |                |                |               |                |               |                |                |               |                | lb/day   |                   |                   |               |     |        |                  |
| Fugitive Dust |               |                |                |               | 18.0663        | 0.0000        | 18.0663        | 9.9307         | 0.0000        | 9.9307         |          |                   | 0.0000            |               |     | 0.0000 |                  |
| Off-Road      | 3.8882        | 40.4971        | 21.1543        | 0.0380        |                | 2.0445        | 2.0445         |                | 1.8809        | 1.8809         |          | 3,685.656         | 3,685.6569        | 1.1920        |     |        | 3,715.453        |
| <b>Total</b>  | <b>3.8882</b> | <b>40.4971</b> | <b>21.1543</b> | <b>0.0380</b> | <b>18.0663</b> | <b>2.0445</b> | <b>20.1107</b> | <b>9.9307</b>  | <b>1.8809</b> | <b>11.8116</b> |          | <b>3,685.6569</b> | <b>3,685.6569</b> | <b>1.1920</b> |     |        | <b>3,715.453</b> |

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

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4      | N2O    | CO2e   |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|--------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |             |          |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000   | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000   | 0.0000 | 0.0000 |
| Worker   | 0.0706 | 0.0454 | 0.4488 | 1.3800e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      | 137.6186 | 137.6186  | 3.9500e-003 | 137.7174 |        |        |
| Total    | 0.0706 | 0.0454 | 0.4488 | 1.3800e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      | 137.6186 | 137.6186  | 3.9500e-003 | 137.7174 |        |        |

## **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 |         |         |        |        |        |         |        |        |        |        |            |            |        |  |            |
| Off-Road | 3.8882        | 40.4971 | 21.1543 | 0.0380 |        | 2.0445 | 2.0445  |        | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 |  | 3,715.4573 |
| Total    | 3.8882        | 40.4971 | 21.1543 | 0.0380 | 8.1298 | 2.0445 | 10.1743 | 4.4688 | 1.8809 | 6.3497 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 |  | 3,715.4573 |

### 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      | 0.0000 | 0.0000   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000   |
| Worker   | 0.0706 | 0.0454 | 0.4488 | 1.3800e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      |          | 137.6186  | 137.6186  | 3.9500e-003 |        | 137.7174 |
| Total    | 0.0706 | 0.0454 | 0.4488 | 1.3800e-003 | 0.1479        | 1.0200e-003  | 0.1489     | 0.0392         | 9.4000e-004   | 0.0402      |          | 137.6186  | 137.6186  | 3.9500e-003 |        | 137.7174 |

### **3.4 Grading - 2021**

#### Unmitigated Construction On-Site

|               | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4 | N2O        | CO2e   |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|-----|------------|--------|
| Category      | lb/day |         |         |        |               |              |            |                |               |             | lb/day     |            |           |     |            |        |
| Fugitive Dust |        |         |         |        | 8.6733        | 0.0000       | 8.6733     | 3.5965         | 0.0000        | 3.5965      |            |            | 0.0000    |     |            | 0.0000 |
| Off-Road      | 4.1912 | 46.3998 | 30.8785 | 0.0620 |               | 1.9853       | 1.9853     |                | 1.8265        | 1.8265      | 6,007.0434 | 6,007.0434 | 1.9428    |     | 6,055.6134 |        |

|       |        |         |         |        |        |        |         |        |        |        |  |                |            |        |  |                |
|-------|--------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--|----------------|------------|--------|--|----------------|
| Total | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 8.6733 | 1.9853 | 10.6587 | 3.5965 | 1.8265 | 5.4230 |  | 6,007.043<br>4 | 6,007.0434 | 1.9428 |  | 6,055.613<br>4 |
|-------|--------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--|----------------|------------|--------|--|----------------|

### 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  | 0.0768 | 2.6025 | 0.6710 | 7.6300e-003 | 0.1759        | 8.0400e-003  | 0.1839     | 0.0482         | 7.6900e-003   | 0.0559      | 836.5368 | 836.5368  | 0.0777      |        |        | 838.4784 |
| 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 |          |
| Worker   | 0.0785 | 0.0505 | 0.4987 | 1.5300e-003 | 0.1643        | 1.1300e-003  | 0.1654     | 0.0436         | 1.0500e-003   | 0.0446      | 152.9095 | 152.9095  | 4.3900e-003 |        |        | 153.0193 |
| Total    | 0.1552 | 2.6529 | 1.1696 | 9.1600e-003 | 0.3402        | 9.1700e-003  | 0.3494     | 0.0918         | 8.7400e-003   | 0.1005      | 989.4463 | 989.4463  | 0.0821      |        |        | 991.4978 |

### 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 |        |         |         |        | 3.9030        | 0.0000       | 3.9030     | 1.6184         | 0.0000        | 1.6184      | 0.0000   | 0.0000         |            |        | 0.0000 |                |
| Off-Road      | 4.1912 | 46.3998 | 30.8785 | 0.0620 |               | 1.9853       | 1.9853     |                | 1.8265        | 1.8265      | 0.0000   | 6,007.043<br>4 | 6,007.0434 | 1.9428 |        | 6,055.613<br>4 |
| Total         | 4.1912 | 46.3998 | 30.8785 | 0.0620 | 3.9030        | 1.9853       | 5.8883     | 1.6184         | 1.8265        | 3.4449      | 0.0000   | 6,007.043<br>4 | 6,007.0434 | 1.9428 |        | 6,055.613<br>4 |

### 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  | 0.0768 | 2.6025 | 0.6710 | 7.6300e-003 | 0.1759        | 8.0400e-003  | 0.1839     | 0.0482         | 7.6900e-003   | 0.0559      | 836.5368 | 836.5368  | 0.0777      |        |        | 838.4784 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000 | 0.0000   |
| Worker   | 0.0785 | 0.0505 | 0.4987 | 1.5300e-003 | 0.1643        | 1.1300e-003  | 0.1654     | 0.0436         | 1.0500e-003   | 0.0446      | 152.9095 | 152.9095  | 4.3900e-003 |        |        | 153.0193 |
| Total    | 0.1552 | 2.6529 | 1.1696 | 9.1600e-003 | 0.3402        | 9.1700e-003  | 0.3494     | 0.0918         | 8.7400e-003   | 0.1005      | 989.4463 | 989.4463  | 0.0821      |        |        | 991.4978 |

### **3.5 Paving 1 - Internal road construction - 2021**

## **Unmitigated Construction On-Site**

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4 | N2O | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|-----|-----|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day     |            |           |     |     |            |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 |               | 0.6777       | 0.6777     |                | 0.6235        | 0.6235      | 2,207.2109 | 2,207.2109 | 0.7139    |     |     | 2,225.0573 |
| Paving   | 0.2822 |         |         |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000     | 0.0000     |           |     |     | 0.0000     |
| Total    | 1.5377 | 12.9191 | 14.6532 | 0.0228 |               | 0.6777       | 0.6777     |                | 0.6235        | 0.6235      | 2,207.2109 | 2,207.2109 | 0.7139    |     |     | 2,225.0573 |

## **Unmitigated Construction Off-Site**

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

|         |        |        |        |             |        |             |        |        |             |        |          |          |             |          |        |
|---------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|----------|----------|-------------|----------|--------|
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000   | 0.0000   | 0.0000      | 0.0000   | 0.0000 |
| 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 |
| Worker  | 0.0628 | 0.0404 | 0.3989 | 1.2300e-003 | 0.1314 | 9.1000e-004 | 0.1323 | 0.0349 | 8.4000e-004 | 0.0357 | 122.3276 | 122.3276 | 3.5100e-003 | 122.4155 |        |
| Total   | 0.0628 | 0.0404 | 0.3989 | 1.2300e-003 | 0.1314 | 9.1000e-004 | 0.1323 | 0.0349 | 8.4000e-004 | 0.0357 | 122.3276 | 122.3276 | 3.5100e-003 | 122.4155 |        |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4        | N2O    | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|------------|--------|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |            |        |            |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 |               |              | 0.6777     | 0.6777         |               | 0.6235      | 0.6235   | 0.0000    | 2,207.2109 | 2,207.2109 | 0.7139 | 2,225.0573 |
| Paving   | 0.2822 |         |         |        |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           | 0.0000     |            | 0.0000 |            |
| Total    | 1.5377 | 12.9191 | 14.6532 | 0.0228 |               |              | 0.6777     | 0.6777         |               | 0.6235      | 0.6235   | 0.0000    | 2,207.2109 | 2,207.2109 | 0.7139 | 2,225.0573 |

### 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   | 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 |      |
| Worker   | 0.0628 | 0.0404 | 0.3989 | 1.2300e-003 | 0.1314        | 9.1000e-004  | 0.1323     | 0.0349         | 8.4000e-004   | 0.0357      | 122.3276 | 122.3276  | 3.5100e-003 | 122.4155 |        |      |
| Total    | 0.0628 | 0.0404 | 0.3989 | 1.2300e-003 | 0.1314        | 9.1000e-004  | 0.1323     | 0.0349         | 8.4000e-004   | 0.0357      | 122.3276 | 122.3276  | 3.5100e-003 | 122.4155 |        |      |

### 3.5 Paving 1 - Internal road construction - 2022

#### Unmitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|------------|-----------|--------|----------------|------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day         |            |           |        |                |      |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 |               | 0.5679       | 0.5679     |                | 0.5225        | 0.5225      | 2,207.660<br>3 | 2,207.6603 | 0.7140    |        | 2,225.510<br>4 |      |
| Paving   | 0.2822 |         |         |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |                | 0.0000     |           | 0.0000 |                |      |
| Total    | 1.3850 | 11.1249 | 14.5805 | 0.0228 |               | 0.5679       | 0.5679     |                | 0.5225        | 0.5225      | 2,207.660<br>3 | 2,207.6603 | 0.7140    |        | 2,225.510<br>4 |      |

#### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4    | N2O      | CO2e   |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|--------|----------|--------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |             |        |          |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Worker   | 0.0595 | 0.0368 | 0.3702 | 1.1800e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      | 117.8441 | 117.8441  | 3.2200e-003 |        | 117.9245 |        |
| Total    | 0.0595 | 0.0368 | 0.3702 | 1.1800e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      | 117.8441 | 117.8441  | 3.2200e-003 |        | 117.9245 |        |

#### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4        | N2O    | CO2e   |            |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|------------|--------|--------|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |            |        |        |            |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 |               |              | 0.5679     | 0.5679         |               | 0.5225      | 0.5225   | 0.0000    | 2,207.6603 | 2,207.6603 | 0.7140 |        | 2,225.5104 |
| Paving   | 0.2822 |         |         |        |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           |            | 0.0000     |        | 0.0000 |            |
| Total    | 1.3850 | 11.1249 | 14.5805 | 0.0228 |               |              | 0.5679     | 0.5679         |               | 0.5225      | 0.5225   | 0.0000    | 2,207.6603 | 2,207.6603 | 0.7140 |        | 2,225.5104 |

### 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      | 0.0000 | 0.0000   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000   |
| Worker   | 0.0595 | 0.0368 | 0.3702 | 1.1800e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      |          | 117.8441  | 117.8441  | 3.2200e-003 |        | 117.9245 |
| Total    | 0.0595 | 0.0368 | 0.3702 | 1.1800e-003 | 0.1314        | 8.9000e-004  | 0.1323     | 0.0349         | 8.2000e-004   | 0.0357      |          | 117.8441  | 117.8441  | 3.2200e-003 |        | 117.9245 |

### **3.6 Building Construction - 2022**

#### Unmitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4        | N2O    | CO2e |            |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------------|--------|------|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |           |            |        |      |            |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 |               |              | 0.8090     | 0.8090         |               | 0.7612      | 0.7612   |           | 2,554.333 | 2,554.3336 | 0.6120 |      | 2,569.6322 |

|       |        |         |         |        |  |        |        |  |        |        |  |                |            |        |  |                |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 |  | 0.8090 | 0.8090 |  | 0.7612 | 0.7612 |  | 2,554.333<br>6 | 2,554.3336 | 0.6120 |  | 2,569.632<br>2 |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|

### Unmitigated Construction Off-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|------------|-----------|--------|----------------|------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day         |            |           |        |                |      |
| Hauling  | 0.0000 | 0.0000  | 0.0000  | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000         | 0.0000     | 0.0000    | 0.0000 | 0.0000         |      |
| Vendor   | 0.3440 | 11.1252 | 3.1736  | 0.0303 | 0.7853        | 0.0223       | 0.8075     | 0.2261         | 0.0213        | 0.2473      | 3,260.790<br>4 | 3,260.7904 | 0.2483    |        | 3,266.997<br>6 |      |
| Worker   | 1.9552 | 1.2096  | 12.1690 | 0.0389 | 4.3210        | 0.0292       | 4.3502     | 1.1461         | 0.0269        | 1.1730      | 3,874.124<br>6 | 3,874.1246 | 0.1058    |        | 3,876.769<br>0 |      |
| Total    | 2.2992 | 12.3348 | 15.3425 | 0.0691 | 5.1062        | 0.0515       | 5.1577     | 1.3722         | 0.0482        | 1.4203      | 7,134.915<br>0 | 7,134.9150 | 0.3541    |        | 7,143.766<br>6 |      |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2      | Total CO2  | CH4    | N2O | CO2e           |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|------------|--------|-----|----------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |                |            |        |     |                |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 |               | 0.8090       | 0.8090     |                | 0.7612        | 0.7612      | 0.0000   | 2,554.333<br>6 | 2,554.3336 | 0.6120 |     | 2,569.632<br>2 |
| Total    | 1.7062 | 15.6156 | 16.3634 | 0.0269 |               | 0.8090       | 0.8090     |                | 0.7612        | 0.7612      | 0.0000   | 2,554.333<br>6 | 2,554.3336 | 0.6120 |     | 2,569.632<br>2 |

### 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   | 0.3440 | 11.1252 | 3.1736  | 0.0303 | 0.7853        | 0.0223       | 0.8075     | 0.2261         | 0.0213        | 0.2473      |          | 3,260.7904 | 3,260.7904 | 0.2483 |     | 3,266.9976 |  |
| Worker   | 1.9552 | 1.2096  | 12.1690 | 0.0389 | 4.3210        | 0.0292       | 4.3502     | 1.1461         | 0.0269        | 1.1730      |          | 3,874.1246 | 3,874.1246 | 0.1058 |     | 3,876.7690 |  |
| Total    | 2.2992 | 12.3348 | 15.3425 | 0.0691 | 5.1062        | 0.0515       | 5.1577     | 1.3722         | 0.0482        | 1.4203      |          | 7,134.9150 | 7,134.9150 | 0.3541 |     | 7,143.7666 |  |

### 3.6 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 |  |

#### Unmitigated Construction Off-Site

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

|         |        |        |         |        |        |        |        |        |        |        |           |            |        |           |        |
|---------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|-----------|------------|--------|-----------|--------|
| Hauling | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000    | 0.0000     | 0.0000 | 0.0000    | 0.0000 |
| Vendor  | 0.2655 | 8.7489 | 2.8666  | 0.0295 | 0.7853 | 0.0109 | 0.7962 | 0.2261 | 0.0105 | 0.2365 | 3,179.204 | 3,179.2042 | 0.2260 | 3,184.854 | 3      |
| Worker  | 1.8565 | 1.1043 | 11.2794 | 0.0374 | 4.3210 | 0.0286 | 4.3496 | 1.1461 | 0.0264 | 1.1725 | 3,726.164 | 3,726.1640 | 0.0967 | 3,728.581 | 0      |
| Total   | 2.1220 | 9.8531 | 14.1460 | 0.0668 | 5.1062 | 0.0396 | 5.1458 | 1.3722 | 0.0368 | 1.4090 | 6,905.368 | 6,905.3682 | 0.3227 | 6,913.435 | 3      |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2  | CH4    | N2O | CO2e      |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|--------|-----|-----------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |            |        |     |           |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 |               | 0.6997       | 0.6997     |                | 0.6584        | 0.6584      | 0.0000   | 2,555.209 | 2,555.2099 | 0.6079 |     | 2,570.406 |
| Total    | 1.5728 | 14.3849 | 16.2440 | 0.0269 |               | 0.6997       | 0.6997     |                | 0.6584        | 0.6584      | 0.0000   | 2,555.209 | 2,555.2099 | 0.6079 |     | 2,570.406 |

### 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    | 0.0000 |      |
| Vendor   | 0.2655 | 8.7489 | 2.8666  | 0.0295 | 0.7853        | 0.0109       | 0.7962     | 0.2261         | 0.0105        | 0.2365      | 3,179.204 | 3,179.2042 | 0.2260    | 3,184.854 | 3      |      |
| Worker   | 1.8565 | 1.1043 | 11.2794 | 0.0374 | 4.3210        | 0.0286       | 4.3496     | 1.1461         | 0.0264        | 1.1725      | 3,726.164 | 3,726.1640 | 0.0967    | 3,728.581 | 0      |      |
| Total    | 2.1220 | 9.8531 | 14.1460 | 0.0668 | 5.1062        | 0.0396       | 5.1458     | 1.3722         | 0.0368        | 1.4090      | 6,905.368 | 6,905.3682 | 0.3227    | 6,913.435 | 3      |      |

### 3.6 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 |  |

#### 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   | 0.2560 | 8.6269 | 2.7755  | 0.0292 | 0.7853        | 0.0106       | 0.7959     | 0.2261         | 0.0102        | 0.2362      |          | 3,159.3398 | 3,159.3398 | 0.2231 |     | 3,164.9161 |  |
| Worker   | 1.7688 | 1.0128 | 10.5296 | 0.0359 | 4.3210        | 0.0281       | 4.3491     | 1.1461         | 0.0259        | 1.1720      |          | 3,579.4928 | 3,579.4928 | 0.0888 |     | 3,581.7121 |  |
| Total    | 2.0248 | 9.6397 | 13.3050 | 0.0651 | 5.1062        | 0.0387       | 5.1449     | 1.3722         | 0.0360        | 1.4082      |          | 6,738.8325 | 6,738.8325 | 0.3118 |     | 6,746.6282 |  |

#### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4    | N2O | CO2e       |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |            |            |        |     |            |
| Off-Road | 1.4716 | 13.4438 | 16.1668 | 0.0270 |               | 0.6133       | 0.6133     |                | 0.5769        | 0.5769      | 0.0000   | 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      | 0.0000   | 2,555.6989 | 2,555.6989 | 0.6044 |     | 2,570.8077 |

### 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 | 0.0000     | 0.0000 |
| Vendor   | 0.2560 | 8.6269 | 2.7755  | 0.0292 | 0.7853        | 0.0106       | 0.7959     | 0.2261         | 0.0102        | 0.2362      | 3,159.3398 | 3,159.3398 | 0.2231    |        | 3,164.9161 |        |
| Worker   | 1.7688 | 1.0128 | 10.5296 | 0.0359 | 4.3210        | 0.0281       | 4.3491     | 1.1461         | 0.0259        | 1.1720      | 3,579.4928 | 3,579.4928 | 0.0888    |        | 3,581.7121 |        |
| Total    | 2.0248 | 9.6397 | 13.3050 | 0.0651 | 5.1062        | 0.0387       | 5.1449     | 1.3722         | 0.0360        | 1.4082      | 6,738.8325 | 6,738.8325 | 0.3118    |        | 6,746.6282 |        |

### **3.6 Building Construction - 2025**

#### 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 | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 2,556.4744 | 2,556.4744 | 0.6010    |     | 2,571.4981 |      |

|       |        |         |         |        |  |        |        |  |        |        |  |                |            |        |  |                |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|
| Total | 1.3674 | 12.4697 | 16.0847 | 0.0270 |  | 0.5276 | 0.5276 |  | 0.4963 | 0.4963 |  | 2,556.474<br>4 | 2,556.4744 | 0.6010 |  | 2,571.498<br>1 |
|-------|--------|---------|---------|--------|--|--------|--------|--|--------|--------|--|----------------|------------|--------|--|----------------|

### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2        | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e |
|----------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|-----------------|------------|-----------|--------|----------------|------|
| Category | lb/day |        |         |        |               |              |            |                |               |             | lb/day          |            |           |        |                |      |
| Hauling  | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000          | 0.0000     | 0.0000    | 0.0000 | 0.0000         |      |
| Vendor   | 0.2483 | 8.5021 | 2.7187  | 0.0290 | 0.7853        | 0.0103       | 0.7955     | 0.2261         | 9.8100e-003   | 0.2359      | 3,140.4295<br>5 | 3,140.4295 | 0.2205    |        | 3,145.941<br>1 |      |
| Worker   | 1.6922 | 0.9337 | 9.8252  | 0.0344 | 4.3210        | 0.0277       | 4.3486     | 1.1461         | 0.0255        | 1.1716      | 3,434.8088<br>8 | 3,434.8088 | 0.0819    |        | 3,436.856<br>5 |      |
| Total    | 1.9405 | 9.4358 | 12.5439 | 0.0635 | 5.1062        | 0.0379       | 5.1442     | 1.3722         | 0.0353        | 1.4075      | 6,575.2383<br>3 | 6,575.2383 | 0.3024    |        | 6,582.797<br>5 |      |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2      | Total CO2  | CH4    | N2O | CO2e           |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|------------|--------|-----|----------------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |                |            |        |     |                |
| Off-Road | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 0.0000   | 2,556.474<br>4 | 2,556.4744 | 0.6010 |     | 2,571.498<br>1 |
| Total    | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 0.0000   | 2,556.474<br>4 | 2,556.4744 | 0.6010 |     | 2,571.498<br>1 |

### Mitigated Construction Off-Site

|          | ROG    | NOx    | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4    | N2O        | CO2e   |
|----------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|--------|------------|--------|
| Category | lb/day |        |         |        |               |              |            |                |               |             | lb/day     |            |           |        |            |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000     | 0.0000     | 0.0000    | 0.0000 | 0.0000     | 0.0000 |
| Vendor   | 0.2483 | 8.5021 | 2.7187  | 0.0290 | 0.7853        | 0.0103       | 0.7955     | 0.2261         | 9.8100e-003   | 0.2359      | 3,140.4295 | 3,140.4295 | 0.2205    | 5      | 3,145.9411 | 1      |
| Worker   | 1.6922 | 0.9337 | 9.8252  | 0.0344 | 4.3210        | 0.0277       | 4.3486     | 1.1461         | 0.0255        | 1.1716      | 3,434.8088 | 3,434.8088 | 0.0819    | 8      | 3,436.8565 | 5      |
| Total    | 1.9405 | 9.4358 | 12.5439 | 0.0635 | 5.1062        | 0.0379       | 5.1442     | 1.3722         | 0.0353        | 1.4075      | 6,575.2383 | 6,575.2383 | 0.3024    | 3      | 6,582.7955 | 5      |

### **3.6 Building Construction - 2026**

## **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 | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 2,556.4744 | 2,556.4744 | 0.6010    |     | 2,571.4981 |      |
| Total    | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               | 0.5276       | 0.5276     |                | 0.4963        | 0.4963      | 2,556.4744 | 2,556.4744 | 0.6010    |     | 2,571.4981 |      |

## **Unmitigated Construction Off-Site**

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

|         |        |        |         |        |        |             |        |        |             |        |        |           |            |        |           |
|---------|--------|--------|---------|--------|--------|-------------|--------|--------|-------------|--------|--------|-----------|------------|--------|-----------|
| Hauling | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000 | 0.0000 | 0.0000    | 0.0000     | 0.0000 | 0.0000    |
| Vendor  | 0.2419 | 8.3812 | 2.6787  | 0.0288 | 0.7853 | 9.9400e-003 | 0.7952 | 0.2261 | 9.5000e-003 | 0.2356 | 1      | 3,122.760 | 3,122.7601 | 0.2180 | 3,128.210 |
| Worker  | 1.6252 | 0.8684 | 9.2305  | 0.0332 | 4.3210 | 0.0268      | 4.3478 | 1.1461 | 0.0247      | 1.1708 | 4      | 3,309.022 | 3,309.0224 | 0.0763 | 3,310.929 |
| Total   | 1.8671 | 9.2495 | 11.9092 | 0.0620 | 5.1062 | 0.0367      | 5.1430 | 1.3722 | 0.0342      | 1.4063 | 5      | 6,431.782 | 6,431.7825 | 0.2943 | 6,439.139 |

### Mitigated Construction On-Site

|          | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4        | N2O    | CO2e      |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------------|--------|-----------|
| Category | lb/day |         |         |        |               |              |            |                |               |             | lb/day   |           |           |            |        |           |
| Off-Road | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               |              | 0.5276     | 0.5276         |               | 0.4963      | 0.4963   | 0.0000    | 2,556.474 | 2,556.4744 | 0.6010 | 2,571.498 |
| Total    | 1.3674 | 12.4697 | 16.0847 | 0.0270 |               |              | 0.5276     | 0.5276         |               | 0.4963      | 0.4963   | 0.0000    | 2,556.474 | 2,556.4744 | 0.6010 | 2,571.498 |

### 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 | 0.0000    |      |
| Vendor   | 0.2419 | 8.3812 | 2.6787  | 0.0288 | 0.7853        | 9.9400e-003  | 0.7952     | 0.2261         | 9.5000e-003   | 0.2356      | 1        | 3,122.760 | 3,122.7601 | 0.2180 | 3,128.210 |      |
| Worker   | 1.6252 | 0.8684 | 9.2305  | 0.0332 | 4.3210        | 0.0268       | 4.3478     | 1.1461         | 0.0247        | 1.1708      | 4        | 3,309.022 | 3,309.0224 | 0.0763 | 3,310.929 |      |
| Total    | 1.8671 | 9.2495 | 11.9092 | 0.0620 | 5.1062        | 0.0367       | 5.1430     | 1.3722         | 0.0342        | 1.4063      | 5        | 6,431.782 | 6,431.7825 | 0.2943 | 6,439.139 |      |

### 3.7 Paving 2 - paved areas - 2025

#### Unmitigated Construction On-Site

|          | ROG    | NOx    | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2       | NBio- CO2  | Total CO2 | CH4    | N2O            | CO2e   |
|----------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|------------|-----------|--------|----------------|--------|
| Category | lb/day |        |         |        |               |              |            |                |               |             | lb/day         |            |           |        |                |        |
| Off-Road | 0.9152 | 8.5816 | 14.5780 | 0.0228 |               | 0.4185       | 0.4185     |                | 0.3850        | 0.3850      | 2,206.745<br>2 | 2,206.7452 | 0.7137    |        | 2,224.587<br>8 |        |
| Paving   | 0.2911 |        |         |        |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |                | 0.0000     |           | 0.0000 |                | 0.0000 |
| Total    | 1.2063 | 8.5816 | 14.5780 | 0.0228 |               | 0.4185       | 0.4185     |                | 0.3850        | 0.3850      | 2,206.745<br>2 | 2,206.7452 | 0.7137    |        | 2,224.587<br>8 |        |

#### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4    | N2O      | CO2e   |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|--------|----------|--------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |             |        |          |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000      | 0.0000 | 0.0000   | 0.0000 |
| Worker   | 0.0515 | 0.0284 | 0.2989 | 1.0500e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      | 104.4809 | 104.4809  | 2.4900e-003 |        | 104.5432 |        |
| Total    | 0.0515 | 0.0284 | 0.2989 | 1.0500e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      | 104.4809 | 104.4809  | 2.4900e-003 |        | 104.5432 |        |

#### 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 | 0.9152 | 8.5816 | 14.5780 | 0.0228 |               |              | 0.4185     | 0.4185         |               | 0.3850      | 0.3850   | 0.0000    | 2,206.7452 | 2,206.7452 | 0.7137 |      | 2,224.5878 |
| Paving   | 0.2911 |        |         |        |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           |            | 0.0000     |        |      | 0.0000     |
| Total    | 1.2063 | 8.5816 | 14.5780 | 0.0228 |               |              | 0.4185     | 0.4185         |               | 0.3850      | 0.3850   | 0.0000    | 2,206.7452 | 2,206.7452 | 0.7137 |      | 2,224.5878 |

### 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      |     | 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   |
| Worker   | 0.0515 | 0.0284 | 0.2989 | 1.0500e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      |          | 104.4809  | 104.4809  | 2.4900e-003 |     | 104.5432 |
| Total    | 0.0515 | 0.0284 | 0.2989 | 1.0500e-003 | 0.1314        | 8.4000e-004  | 0.1323     | 0.0349         | 7.7000e-004   | 0.0356      |          | 104.4809  | 104.4809  | 2.4900e-003 |     | 104.5432 |

### **3.8 Architectural Coating - 2026**

#### 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 | 48.5686 |     |    |     |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   |           | 0.0000    |     |     | 0.0000 |

|          |         |        |        |             |  |        |        |  |        |        |  |          |          |        |  |          |
|----------|---------|--------|--------|-------------|--|--------|--------|--|--------|--------|--|----------|----------|--------|--|----------|
| Off-Road | 0.1709  | 1.1455 | 1.8091 | 2.9700e-003 |  | 0.0515 | 0.0515 |  | 0.0515 | 0.0515 |  | 281.4481 | 281.4481 | 0.0154 |  | 281.8319 |
| Total    | 48.7395 | 1.1455 | 1.8091 | 2.9700e-003 |  | 0.0515 | 0.0515 |  | 0.0515 | 0.0515 |  | 281.4481 | 281.4481 | 0.0154 |  | 281.8319 |

### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O      | CO2e |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|----------|------|
| Category | lb/day |        |        |             |               |              |            |                |               |             | lb/day   |           |           |        |          |      |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000   |      |
| 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   |      |
| Worker   | 0.3275 | 0.1750 | 1.8601 | 6.6900e-003 | 0.8708        | 5.4000e-003  | 0.8762     | 0.2310         | 4.9700e-003   | 0.2359      | 666.8372 | 666.8372  | 0.0154    |        | 667.2215 |      |
| Total    | 0.3275 | 0.1750 | 1.8601 | 6.6900e-003 | 0.8708        | 5.4000e-003  | 0.8762     | 0.2310         | 4.9700e-003   | 0.2359      | 666.8372 | 666.8372  | 0.0154    |        | 667.2215 |      |

### 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 | 48.5686 |        |        |             |               |              | 0.0000     | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 |          |
| Off-Road        | 0.1709  | 1.1455 | 1.8091 | 2.9700e-003 |               | 0.0515       | 0.0515     |                | 0.0515        | 0.0515      | 0.0000   | 281.4481  | 281.4481  | 0.0154 |        | 281.8319 |
| Total           | 48.7395 | 1.1455 | 1.8091 | 2.9700e-003 |               | 0.0515       | 0.0515     |                | 0.0515        | 0.0515      | 0.0000   | 281.4481  | 281.4481  | 0.0154 |        | 281.8319 |

### 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 | 0.0000   | 0.0000 |  |  |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000   | 0.0000 |  |  |
| Worker   | 0.3275 | 0.1750 | 1.8601 | 6.6900e-003 | 0.8708        | 5.4000e-003  | 0.8762     | 0.2310         | 4.9700e-003   | 0.2359      | 666.8372 | 666.8372  | 0.0154    |        | 667.2215 |        |  |  |
| Total    | 0.3275 | 0.1750 | 1.8601 | 6.6900e-003 | 0.8708        | 5.4000e-003  | 0.8762     | 0.2310         | 4.9700e-003   | 0.2359      | 666.8372 | 666.8372  | 0.0154    |        | 667.2215 |        |  |  |

## 4.0 Operational Detail - Mobile

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### 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   | 5.7918 | 22.9625 | 66.2225 | 0.2419 | 24.4528       | 0.1936       | 24.6464    | 6.5340         | 0.1800        | 6.7141      | 24,683.21 | 24,683.218 | 1.2554    |     | 24,714.60 | 33   |  |
| Unmitigated | 5.7918 | 22.9625 | 66.2225 | 0.2419 | 24.4528       | 0.1936       | 24.6464    | 6.5340         | 0.1800        | 6.7141      | 24,683.21 | 24,683.218 | 1.2554    |     | 24,714.60 | 33   |  |

### 4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate |          |        | Unmitigated |            | Mitigated |  |
|----------|-------------------------|----------|--------|-------------|------------|-----------|--|
|          | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT |           |  |

|                           |          |          |          |            |            |
|---------------------------|----------|----------|----------|------------|------------|
| Apartments Mid Rise       | 1,548.00 | 1,612.50 | 1362.24  | 4,370,548  | 4,370,548  |
| Condo/Townhouse High Rise | 1,296.00 | 1,334.88 | 1035.18  | 3,609,944  | 3,609,944  |
| General Office Building   | 60.00    | 13.38    | 5.70     | 108,932    | 108,932    |
| Health Club               | 0.00     | 0.00     | 0.00     |            |            |
| Parking Lot               | 0.00     | 0.00     | 0.00     |            |            |
| Quality Restaurant        | 480.00   | 283.08   | 216.48   | 491,337    | 491,337    |
| Retirement Community      | 360.00   | 562.50   | 475.20   | 1,157,499  | 1,157,499  |
| Strip Mall                | 520.00   | 360.44   | 239.20   | 703,936    | 703,936    |
| Total                     | 4,264.00 | 4,166.78 | 3,334.00 | 10,442,196 | 10,442,196 |

#### 4.3 Trip Type Information

| Land Use                  | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|---------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                           | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| Apartments Mid Rise       | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| Condo/Townhouse High Rise | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| General Office Building   | 9.50       | 7.30       | 7.30        | 33.00     | 48.00      | 19.00       | 77             | 19       | 4       |
| Health Club               | 9.50       | 7.30       | 7.30        | 16.90     | 64.10      | 19.00       | 52             | 39       | 9       |
| Parking Lot               | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |
| Quality Restaurant        | 9.50       | 7.30       | 7.30        | 12.00     | 69.00      | 19.00       | 38             | 18       | 44      |
| Retirement Community      | 10.80      | 7.30       | 7.50        | 41.60     | 18.80      | 39.60       | 86             | 11       | 3       |
| Strip Mall                | 9.50       | 7.30       | 7.30        | 16.60     | 64.40      | 19.00       | 45             | 40       | 15      |

#### 4.4 Fleet Mix

| Land Use                  | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise       | 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 |
| Condo/Townhouse High Rise | 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 |
| General Office Building   | 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 |
| Health Club               | 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 |
| Parking Lot               | 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 |
| Quality Restaurant        | 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 |
| Retirement Community      | 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 |
| Strip Mall                | 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

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|                        | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 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   | 0.1402 | 1.2082 | 0.5827 | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |          | 1,529.7711 | 1,529.7711 | 0.0293 | 0.0281 | 1,538.8618 |  |
| NaturalGas Unmitigated | 0.1402 | 1.2082 | 0.5827 | 7.6500e-003 |               | 0.0969       | 0.0969     |                | 0.0969        | 0.0969      |          | 1,529.7711 | 1,529.7711 | 0.0293 | 0.0281 | 1,538.8618 |  |

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

|                           | NaturalGas Use | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O         | CO2e     |  |
|---------------------------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|--|
| Land Use                  | kBTU/yr        | lb/day      |             |             |             |               |              |             |                |               |             |          | lb/day    |           |             |             |          |  |
| Apartments Mid Rise       | 5251           | 0.0566      | 0.4839      | 0.2059      | 3.0900e-003 |               | 0.0391       | 0.0391      |                | 0.0391        | 0.0391      |          | 617.7647  | 617.7647  | 0.0118      | 0.0113      | 621.4358 |  |
| Condo/Townhouse High Rise | 3297.14        | 0.0356      | 0.3039      | 0.1293      | 1.9400e-003 |               | 0.0246       | 0.0246      |                | 0.0246        | 0.0246      |          | 387.8988  | 387.8988  | 7.4300e-003 | 7.1100e-003 | 390.2038 |  |
| General Office Building   | 165.945        | 1.7900e-003 | 0.0163      | 0.0137      | 1.0000e-004 |               | 1.2400e-003  | 1.2400e-003 |                | 1.2400e-003   | 1.2400e-003 |          | 19.5230   | 19.5230   | 3.7000e-004 | 3.6000e-004 | 19.6390  |  |
| Health Club               | 63.3425        | 6.8000e-004 | 6.2100e-003 | 5.2200e-003 | 4.0000e-005 |               | 4.7000e-004  | 4.7000e-004 |                | 4.7000e-004   | 4.7000e-004 |          | 7.4521    | 7.4521    | 1.4000e-004 | 1.4000e-004 | 7.4963   |  |
| Parking Lot               | 0              | 0.0000      | 0.0000      | 0.0000      | 0.0000      |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      |          | 0.0000    | 0.0000    | 0.0000      | 0.0000      | 0.0000   |  |
| Quality Restaurant        | 1433.26        | 0.0155      | 0.1405      | 0.1180      | 8.4000e-004 |               | 0.0107       | 0.0107      |                | 0.0107        | 0.0107      |          | 168.6189  | 168.6189  | 3.2300e-003 | 3.0900e-003 | 169.6209 |  |
| Retirement Community      | 2767.93        | 0.0299      | 0.2551      | 0.1086      | 1.6300e-003 |               | 0.0206       | 0.0206      |                | 0.0206        | 0.0206      |          | 325.6387  | 325.6387  | 6.2400e-003 | 5.9700e-003 | 327.5738 |  |

|            |         |             |             |             |             |  |             |             |             |             |        |        |            |             |             |        |            |
|------------|---------|-------------|-------------|-------------|-------------|--|-------------|-------------|-------------|-------------|--------|--------|------------|-------------|-------------|--------|------------|
| Strip Mall | 24.4384 | 2.6000e-004 | 2.4000e-003 | 2.0100e-003 | 1.0000e-005 |  | 1.8000e-004 | 1.8000e-004 | 1.8000e-004 | 1.8000e-004 |        | 2.8751 | 2.8751     | 6.0000e-005 | 5.0000e-005 | 2.8922 |            |
| Total      |         | 0.1402      | 1.2083      | 0.5827      | 7.6500e-003 |  | 0.0969      | 0.0969      |             | 0.0969      | 0.0969 |        | 1,529.7711 | 1,529.7711  | 0.0293      | 0.0281 | 1,538.8618 |

## Mitigated

|                           | NaturalGas Use | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2  | Total CO2  | CH4         | N2O         | CO2e       |
|---------------------------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|------------|------------|-------------|-------------|------------|
| Land Use                  | kBTU/yr        | lb/day      |             |             |             |               |              |             |                |               |             | lb/day   |            |            |             |             |            |
| Apartments Mid Rise       | 5.251          | 0.0566      | 0.4839      | 0.2059      | 3.0900e-003 |               | 0.0391       | 0.0391      |                | 0.0391        | 0.0391      |          | 617.7647   | 617.7647   | 0.0118      | 0.0113      | 621.4358   |
| Condo/Townhouse High Rise | 3.29714        | 0.0356      | 0.3039      | 0.1293      | 1.9400e-003 |               | 0.0246       | 0.0246      |                | 0.0246        | 0.0246      |          | 387.8988   | 387.8988   | 7.4300e-003 | 7.1100e-003 | 390.2038   |
| General Office Building   | 0.165945       | 1.7900e-003 | 0.0163      | 0.0137      | 1.0000e-004 |               | 1.2400e-003  | 1.2400e-003 |                | 1.2400e-003   | 1.2400e-003 |          | 19.5230    | 19.5230    | 3.7000e-004 | 3.6000e-004 | 19.6390    |
| Health Club               | 0.0633425      | 6.8000e-004 | 6.2100e-003 | 5.2200e-003 | 4.0000e-005 |               | 4.7000e-004  | 4.7000e-004 |                | 4.7000e-004   | 4.7000e-004 |          | 7.4521     | 7.4521     | 1.4000e-004 | 1.4000e-004 | 7.4963     |
| Parking Lot               | 0              | 0.0000      | 0.0000      | 0.0000      | 0.0000      |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      |          | 0.0000     | 0.0000     | 0.0000      | 0.0000      | 0.0000     |
| Quality Restaurant        | 1.43326        | 0.0155      | 0.1405      | 0.1180      | 8.4000e-004 |               | 0.0107       | 0.0107      |                | 0.0107        | 0.0107      |          | 168.6189   | 168.6189   | 3.2300e-003 | 3.0900e-003 | 169.6209   |
| Retirement Community      | 2.76793        | 0.0299      | 0.2551      | 0.1086      | 1.6300e-003 |               | 0.0206       | 0.0206      |                | 0.0206        | 0.0206      |          | 325.6387   | 325.6387   | 6.2400e-003 | 5.9700e-003 | 327.5738   |
| Strip Mall                | 0.0244384      | 2.6000e-004 | 2.4000e-003 | 2.0100e-003 | 1.0000e-005 |               | 1.8000e-004  | 1.8000e-004 |                | 1.8000e-004   | 1.8000e-004 |          | 2.8751     | 2.8751     | 6.0000e-005 | 5.0000e-005 | 2.8922     |
| Total                     |                | 0.1402      | 1.2083      | 0.5827      | 7.6500e-003 |               | 0.0969       | 0.0969      |                | 0.0969        | 0.0969      |          | 1,529.7711 | 1,529.7711 | 0.0293      | 0.0281      | 1,538.8618 |

## 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   | 29.3492 | 7.0159 | 159.2190 | 0.4075 |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6 | 8,787.5902 | 13.1437 | 0.1089 | 9,148.635<br>2 |
| Unmitigated | 29.3492 | 7.0159 | 159.2190 | 0.4075 |               | 19.3877      | 19.3877    |                | 19.3877       | 19.3877     | 2,771.625<br>6 | 6,015.964<br>6 | 8,787.5902 | 13.1437 | 0.1089 | 9,148.635<br>2 |

## 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 | 4.2431         |               |                 |               |               | 0.0000         | 0.0000         |                | 0.0000         | 0.0000         |                        |                        | 0.0000            |                |               | 0.0000                 |
| Consumer Products     | 10.6156        |               |                 |               |               | 0.0000         | 0.0000         |                | 0.0000         | 0.0000         |                        |                        | 0.0000            |                |               | 0.0000                 |
| Hearth                | 13.2196        | 6.5308        | 117.0888        | 0.4053        |               | 19.1542        | 19.1542        |                | 19.1542        | 19.1542        | 2,771.625<br>6         | 5,940.000<br>0         | 8,711.6256        | 13.0706        | 0.1089        | 9,070.843<br>7         |
| Landscaping           | 1.2708         | 0.4851        | 42.1302         | 2.2300e-003   |               | 0.2336         | 0.2336         |                | 0.2336         | 0.2336         |                        | 75.9646                | 75.9646           | 0.0731         |               | 77.7915                |
| <b>Total</b>          | <b>29.3492</b> | <b>7.0159</b> | <b>159.2190</b> | <b>0.4075</b> |               | <b>19.3877</b> | <b>19.3877</b> |                | <b>19.3877</b> | <b>19.3877</b> | <b>2,771.625<br/>6</b> | <b>6,015.964<br/>6</b> | <b>8,787.5902</b> | <b>13.1437</b> | <b>0.1089</b> | <b>9,148.635<br/>2</b> |

### Mitigated

|                       | ROG    | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e   |
|-----------------------|--------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|--------|
| SubCategory           | lb/day |     |    |     |               |              |            |                |               |             | lb/day   |           |           |     |     |        |
| Architectural Coating | 4.2431 |     |    |     |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      |          |           | 0.0000    |     |     | 0.0000 |

|                   |         |        |          |             |         |         |  |         |         |           |           |            |         |        |           |   |
|-------------------|---------|--------|----------|-------------|---------|---------|--|---------|---------|-----------|-----------|------------|---------|--------|-----------|---|
| Consumer Products | 10.6156 |        |          |             | 0.0000  | 0.0000  |  | 0.0000  | 0.0000  |           | 0.0000    |            | 0.0000  |        | 0.0000    |   |
| Hearth            | 13.2196 | 6.5308 | 117.0888 | 0.4053      | 19.1542 | 19.1542 |  | 19.1542 | 19.1542 | 2,771.625 | 5,940.000 | 8,711.6256 | 13.0706 | 0.1089 | 9,070.843 | 7 |
| Landscaping       | 1.2708  | 0.4851 | 42.1302  | 2.2300e-003 | 0.2336  | 0.2336  |  | 0.2336  | 0.2336  |           | 75.9646   | 75.9646    | 0.0731  |        | 77.7915   |   |
| Total             | 29.3492 | 7.0159 | 159.2190 | 0.4075      | 19.3877 | 19.3877 |  | 19.3877 | 19.3877 | 2,771.625 | 6,015.964 | 8,787.5902 | 13.1437 | 0.1089 | 9,148.635 | 2 |

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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| 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

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## Palamor Heights - Existing - San Diego County APCD Air District, Annual

**Palamor Heights - Existing**  
**San Diego County APCD Air District, Annual**

## 1.0 Project Characteristics

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### 1.1 Land Usage

| Land Uses                      | Size   | Metric   | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|--------|----------|-------------|--------------------|------------|
| Hospital                       | 392.00 | 1000sqft | 4.47        | 392,001.00         | 0          |
| Enclosed Parking with Elevator | 511.00 | Space    | 4.60        | 204,400.00         | 0          |
| Parking Lot                    | 526.00 | Space    | 4.73        | 210,400.00         | 0          |

### 1.2 Other Project Characteristics

|                            |                          |                            |       |                            |       |
|----------------------------|--------------------------|----------------------------|-------|----------------------------|-------|
| Urbanization               | Urban                    | Wind Speed (m/s)           | 2.6   | Precipitation Freq (Days)  | 31    |
| Climate Zone               | 13                       |                            |       | Operational Year           | 2020  |
| Utility Company            | San Diego Gas & Electric |                            |       |                            |       |
| CO2 Intensity<br>(lb/MWhr) | 720.49                   | CH4 Intensity<br>(lb/MWhr) | 0.029 | N2O Intensity<br>(lb/MWhr) | 0.006 |

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

Project Characteristics - Operational year of 2020.

Land Use - No construction.

Construction Phase - no

Off-road Equipment - No construction.

## Off-road Equipment - No construction.

## Off-road Equipment - No construction.

## Trips and VMT - No construction.

## Grading - No construction.

## Vehicle Trips - Based on Traffic Report.

Fleet Mix - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

|                           |                        |        |      |
|---------------------------|------------------------|--------|------|
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 7.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblProjectCharacteristics | PrecipitationFrequency | 40     | 31   |
| tblTripsAndVMT            | VendorTripNumber       | 132.00 | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 15.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 18.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 20.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 300.00 | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 15.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 60.00  | 0.00 |
| tblVehicleTrips           | ST_TR                  | 10.18  | 4.15 |
| tblVehicleTrips           | SU_TR                  | 8.91   | 3.63 |
| tblVehicleTrips           | WD_TR                  | 13.22  | 5.41 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

## **Unmitigated Construction**

|         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction

|         | ROG     | NOx    | CO     | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |        |  |
|---------|---------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|--------|--|
| Year    | tons/yr |        |        |        |               |              |            |                |               |             | MT/yr    |           |           |        |        |        |        |  |
| 2020    | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
| 2021    | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
| Maximum | 0.0000  |        | 0.0000 |        | 0.0000        |              | 0.0000     |                | 0.0000        |             | 0.0000   |           | 0.0000    |        | 0.0000 |        | 0.0000 |  |

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) |  |  |  |  | Maximum Mitigated ROG + NOX (tons/quarter) |  |  |  |  |  |  |  |  |  |
|---------|------------|----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|         |            | Highest  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## 2.2 Overall Operational

### Unmitigated Operational

|          | ROG     | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2  | NBio- CO2  | Total CO2   | CH4    | N2O       | CO2e |  |
|----------|---------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-----------|------------|-------------|--------|-----------|------|--|
| Category | tons/yr |             |        |             |               |              |             |                |               |             | MT/yr     |            |             |        |           |      |  |
| Area     | 2.0277  | 1.2000e-004 | 0.0132 | 0.0000      |               | 5.0000e-005  | 5.0000e-005 | 5.0000e-005    | 5.0000e-005   | 0.0000      | 0.0255    | 0.0255     | 7.0000e-005 | 0.0000 | 0.0273    |      |  |
| Energy   | 0.1225  | 1.1139      | 0.9357 | 6.6800e-003 |               | 0.0847       | 0.0847      | 0.0847         | 0.0847        | 0.0000      | 3,775.280 | 3,775.2805 | 0.1264      | 0.0436 | 3,791.424 |      |  |

|        |        |        |        |        |        |        |        |        |        |        |          |                |            |         |        |                |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|----------------|------------|---------|--------|----------------|
| Mobile | 0.6106 | 2.6735 | 7.0411 | 0.0224 | 1.8609 | 0.0226 | 1.8835 | 0.4981 | 0.0213 | 0.5194 | 0.0000   | 2,062.903<br>8 | 2,062.9038 | 0.1143  | 0.0000 | 2,065.762<br>0 |
| Waste  |        |        |        |        |        | 0.0000 | 0.0000 |        | 0.0000 | 0.0000 | 859.3825 | 0.0000         | 859.3825   | 50.7881 | 0.0000 | 2,129.083<br>9 |
| Water  |        |        |        |        |        | 0.0000 | 0.0000 |        | 0.0000 | 0.0000 | 15.6052  | 243.3332       | 258.9384   | 1.6126  | 0.0399 | 311.1353       |
| Total  | 2.7608 | 3.7875 | 7.9900 | 0.0291 | 1.8609 | 0.1074 | 1.9682 | 0.4981 | 0.1060 | 0.6041 | 874.9877 | 6,081.543<br>0 | 6,956.5308 | 52.6414 | 0.0834 | 8,297.433<br>3 |

### Mitigated Operational

|                   | ROG     | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2      | Total CO2  | CH4         | N2O    | CO2e           |
|-------------------|---------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|----------------|------------|-------------|--------|----------------|
| Category          | tons/yr |             |        |             |               |              |             |                |               |             |          | MT/yr          |            |             |        |                |
| Area              | 2.0277  | 1.2000e-004 | 0.0132 | 0.0000      |               | 5.0000e-005  | 5.0000e-005 |                | 5.0000e-005   | 5.0000e-005 | 0.0000   | 0.0255         | 0.0255     | 7.0000e-005 | 0.0000 | 0.0273         |
| Energy            | 0.1225  | 1.1139      | 0.9357 | 6.6800e-003 |               | 0.0847       | 0.0847      |                | 0.0847        | 0.0847      | 0.0000   | 3,775.280<br>5 | 3,775.2805 | 0.1264      | 0.0436 | 3,791.424<br>9 |
| Mobile            | 0.6106  | 2.6735      | 7.0411 | 0.0224      | 1.8609        | 0.0226       | 1.8835      | 0.4981         | 0.0213        | 0.5194      | 0.0000   | 2,062.903<br>8 | 2,062.9038 | 0.1143      | 0.0000 | 2,065.762<br>0 |
| Waste             |         |             |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 859.3825 | 0.0000         | 859.3825   | 50.7881     | 0.0000 | 2,129.083<br>9 |
| Water             |         |             |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 15.6052  | 243.3332       | 258.9384   | 1.6126      | 0.0399 | 311.1353       |
| Total             | 2.7608  | 3.7875      | 7.9900 | 0.0291      | 1.8609        | 0.1074       | 1.9682      | 0.4981         | 0.1060        | 0.6041      | 874.9877 | 6,081.543<br>0 | 6,956.5308 | 52.6414     | 0.0834 | 8,297.433<br>3 |
|                   | ROG     | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2       | Total CO2  | CH4         | N2O    | CO2e           |
| Percent Reduction | 0.00    | 0.00        | 0.00   | 0.00        | 0.00          | 0.00         | 0.00        | 0.00           | 0.00          | 0.00        | 0.00     | 0.00           | 0.00       | 0.00        | 0.00   | 0.00           |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date  | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|-----------|---------------|----------|-------------------|
| 1            | Demolition | Demolition | 6/1/2020   | 5/31/2020 | 5             | 0        |                   |

|   |                       |                       |            |            |   |   |
|---|-----------------------|-----------------------|------------|------------|---|---|
| 2 | Site Preparation      | Site Preparation      | 6/27/2020  | 6/26/2020  | 5 | 0 |
| 3 | Grading               | Grading               | 7/11/2020  | 7/10/2020  | 5 | 0 |
| 4 | Building Construction | Building Construction | 8/22/2020  | 8/21/2020  | 5 | 0 |
| 5 | Paving                | Paving                | 10/16/2021 | 10/15/2021 | 5 | 0 |
| 6 | Architectural Coating | Architectural Coating | 11/13/2021 | 11/12/2021 | 5 | 0 |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 9.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 588,002; Non-Residential Outdoor: 196,001; Striped Parking Area:

#### OffRoad Equipment

| Phase Name            | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition            | Concrete/Industrial Saws  | 1      | 0.00        | 81          | 0.73        |
| Demolition            | Excavators                | 3      | 0.00        | 158         | 0.38        |
| Demolition            | Rubber Tired Dozers       | 2      | 0.00        | 247         | 0.40        |
| Site Preparation      | Rubber Tired Dozers       | 3      | 0.00        | 247         | 0.40        |
| Site Preparation      | Tractors/Loaders/Backhoes | 4      | 0.00        | 97          | 0.37        |
| Grading               | Excavators                | 2      | 0.00        | 158         | 0.38        |
| Grading               | Graders                   | 1      | 0.00        | 187         | 0.41        |
| Grading               | Rubber Tired Dozers       | 1      | 0.00        | 247         | 0.40        |
| Grading               | Scrapers                  | 2      | 0.00        | 367         | 0.48        |
| Grading               | Tractors/Loaders/Backhoes | 2      | 0.00        | 97          | 0.37        |
| Building Construction | Cranes                    | 1      | 0.00        | 231         | 0.29        |
| Building Construction | Forklifts                 | 3      | 0.00        | 89          | 0.20        |
| Building Construction | Generator Sets            | 1      | 0.00        | 84          | 0.74        |
| Building Construction | Tractors/Loaders/Backhoes | 3      | 0.00        | 97          | 0.37        |
| Building Construction | Welders                   | 1      | 0.00        | 46          | 0.45        |
| Paving                | Pavers                    | 2      | 0.00        | 130         | 0.42        |
| Paving                | Paving Equipment          | 2      | 0.00        | 132         | 0.36        |

|                       |                 |   |      |    |      |
|-----------------------|-----------------|---|------|----|------|
| Paving                | Rollers         | 2 | 0.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 0.00 | 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 |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition            | 6                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation      | 7                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading               | 8                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction | 9                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                | 6                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating | 1                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2020

### Unmitigated Construction On-Site

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

### Unmitigated Construction Off-Site

## **Mitigated Construction On-Site**

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

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

### **3.3 Site Preparation - 2020**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

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

### **3.4 Grading - 2020**

#### Unmitigated Construction On-Site

## Unmitigated Construction Off-Site

## **Mitigated Construction On-Site**

|          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

### Mitigated Construction Off-Site

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

### **3.5 Building Construction - 2020**

#### Unmitigated Construction On-Site

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

#### Unmitigated Construction Off-Site

## **Mitigated Construction On-Site**

## Mitigated Construction Off-Site

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

### **3.6 Paving - 2021**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

### Mitigated Construction On-Site

|              | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2     | Total CO2     | CH4           | N2O           | CO2e          |  |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
| Category     | tons/yr       |               |               |               |               |               |               |                |               |               |               | MT/yr         |               |               |               |               |  |
| Off-Road     | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        |  |
| Paving       | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        |  |
| <b>Total</b> | <b>0.0000</b>  | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |  |

### Mitigated Construction Off-Site

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

### **3.7 Architectural Coating - 2021**

#### Unmitigated Construction On-Site

## Unmitigated Construction Off-Site

## **Mitigated Construction On-Site**

|          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## Mitigated Construction Off-Site

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

## 4.0 Operational Detail - Mobile

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### 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   | 0.6106  | 2.6735 | 7.0411 | 0.0224 | 1.8609        | 0.0226       | 1.8835     | 0.4981         | 0.0213        | 0.5194      | 0.0000   | 2,062.9038 | 2,062.9038 | 0.1143 | 0.0000 | 2,065.7620 |
| Unmitigated | 0.6106  | 2.6735 | 7.0411 | 0.0224 | 1.8609        | 0.0226       | 1.8835     | 0.4981         | 0.0213        | 0.5194      | 0.0000   | 2,062.9038 | 2,062.9038 | 0.1143 | 0.0000 | 2,065.7620 |

## 4.2 Trip Summary Information

| Land Use                       | Average Daily Trip Rate |          |          | Unmitigated |            | Mitigated |  |
|--------------------------------|-------------------------|----------|----------|-------------|------------|-----------|--|
|                                | Weekday                 | Saturday | Sunday   | Annual VMT  | Annual VMT |           |  |
| Enclosed Parking with Elevator | 0.00                    | 0.00     | 0.00     |             |            |           |  |
| Hospital                       | 2,120.00                | 1,626.80 | 1422.96  | 4,910,862   |            | 4,910,862 |  |
| Parking Lot                    | 0.00                    | 0.00     | 0.00     |             |            |           |  |
| Total                          | 2,120.00                | 1,626.80 | 1,422.96 | 4,910,862   |            | 4,910,862 |  |

## 4.3 Trip Type Information

| Land Use                       | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| Enclosed Parking with Elevator | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |
| Hospital                       | 9.50       | 7.30       | 7.30        | 64.90     | 16.10      | 19.00       | 73             | 25       | 2       |
| Parking Lot                    | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |

## 4.4 Fleet Mix

| Land Use                       | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Enclosed Parking with Elevator | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |
| Hospital                       | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |
| Parking Lot                    | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |

## 5.0 Energy Detail

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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   | 2,562.6254 | 2,562.6254 | 0.1032 | 0.0213 | 2,571.5636 |
| Electricity Unmitigated |         |        |        |             |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 2,562.6254 | 2,562.6254 | 0.1032 | 0.0213 | 2,571.5636 |
| NaturalGas Mitigated    | 0.1225  | 1.1139 | 0.9357 | 6.6800e-003 |               | 0.0847       | 0.0847     |                | 0.0847        | 0.0847      | 0.0000   | 1,212.6551 | 1,212.6551 | 0.0232 | 0.0222 | 1,219.8613 |
| NaturalGas Unmitigated  | 0.1225  | 1.1139 | 0.9357 | 6.6800e-003 |               | 0.0847       | 0.0847     |                | 0.0847        | 0.0847      | 0.0000   | 1,212.6551 | 1,212.6551 | 0.0232 | 0.0222 | 1,219.8613 |

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

|                                | NaturalGas Use | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4    | N2O    | CO2e       |
|--------------------------------|----------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|--------|--------|------------|
| Land Use                       | kBTU/yr        | tons/yr |        |        |             |               |              |            |                |               |             | MT/yr      |            |           |        |        |            |
| Enclosed Parking with Elevator | 0              | 0.0000  | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000     | 0.0000     | 0.0000    | 0.0000 | 0.0000 | 0.0000     |
| Hospital                       | 2.27243e+007   | 0.1225  | 1.1139 | 0.9357 | 6.6800e-003 | 0.0847        | 0.0847       | 0.0847     | 0.0847         | 0.0847        | 0.0000      | 1,212.6551 | 1,212.6551 | 0.0232    | 0.0222 | 0.0222 | 1,219.8613 |
| Parking Lot                    | 0              | 0.0000  | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000     | 0.0000     | 0.0000    | 0.0000 | 0.0000 | 0.0000     |
| Total                          |                | 0.1225  | 1.1139 | 0.9357 | 6.6800e-003 | 0.0847        | 0.0847       | 0.0847     | 0.0847         | 0.0847        | 0.0000      | 1,212.6551 | 1,212.6551 | 0.0232    | 0.0222 | 0.0222 | 1,219.8613 |

### **Mitigated**

|             |              |        |        |        |             |  |  |        |        |  |        |        |        |            |            |        |        |            |
|-------------|--------------|--------|--------|--------|-------------|--|--|--------|--------|--|--------|--------|--------|------------|------------|--------|--------|------------|
| Hospital    | 2.27243e+007 | 0.1225 | 1.1139 | 0.9357 | 6.6800e-003 |  |  | 0.0847 | 0.0847 |  | 0.0847 | 0.0847 | 0.0000 | 1,212.6551 | 1,212.6551 | 0.0232 | 0.0222 | 1,219.8613 |
| Parking Lot | 0            | 0.0000 | 0.0000 | 0.0000 | 0.0000      |  |  | 0.0000 | 0.0000 |  | 0.0000 | 0.0000 | 0.0000 | 0.0000     | 0.0000     | 0.0000 | 0.0000 | 0.0000     |
| Total       |              | 0.1225 | 1.1139 | 0.9357 | 6.6800e-003 |  |  | 0.0847 | 0.0847 |  | 0.0847 | 0.0847 | 0.0000 | 1,212.6551 | 1,212.6551 | 0.0232 | 0.0222 | 1,219.8613 |

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

|                                | Electricity Use | Total CO2  | CH4         | N2O         | CO2e       |
|--------------------------------|-----------------|------------|-------------|-------------|------------|
| Land Use                       | kWh/yr          | MT/yr      |             |             |            |
| Enclosed Parking with Elevator | 1.19778e+006    | 391.4463   | 0.0158      | 3.2600e-003 | 392.8116   |
| Hospital                       | 6.56994e+006    | 2,147.1129 | 0.0864      | 0.0179      | 2,154.6019 |
| Parking Lot                    | 73640           | 24.0662    | 9.7000e-004 | 2.0000e-004 | 24.1501    |
| Total                          |                 | 2,562.6254 | 0.1032      | 0.0213      | 2,571.5636 |

#### Mitigated

|                                | Electricity Use | Total CO2  | CH4         | N2O         | CO2e       |
|--------------------------------|-----------------|------------|-------------|-------------|------------|
| Land Use                       | kWh/yr          | MT/yr      |             |             |            |
| Enclosed Parking with Elevator | 1.19778e+006    | 391.4463   | 0.0158      | 3.2600e-003 | 392.8116   |
| Hospital                       | 6.56994e+006    | 2,147.1129 | 0.0864      | 0.0179      | 2,154.6019 |
| Parking Lot                    | 73640           | 24.0662    | 9.7000e-004 | 2.0000e-004 | 24.1501    |
| Total                          |                 | 2,562.6254 | 0.1032      | 0.0213      | 2,571.5636 |

## 6.0 Area Detail

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### 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   | 2.0277  | 1.2000e-004 | 0.0132 | 0.0000 |               | 5.0000e-005  | 5.0000e-005 |                | 5.0000e-005   | 5.0000e-005 | 0.0000   | 0.0255    | 0.0255    | 7.0000e-005 | 0.0000 | 0.0273 |  |
| Unmitigated | 2.0277  | 1.2000e-004 | 0.0132 | 0.0000 |               | 5.0000e-005  | 5.0000e-005 |                | 5.0000e-005   | 5.0000e-005 | 0.0000   | 0.0255    | 0.0255    | 7.0000e-005 | 0.0000 | 0.0273 |  |

### 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 | 0.4687      |             |        |        |               |              | 0.0000      | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products     | 1.5578      |             |        |        |               |              | 0.0000      | 0.0000         |               | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 | 0.0000 |
| Landscaping           | 1.2400e-003 | 1.2000e-004 | 0.0132 | 0.0000 |               | 5.0000e-005  | 5.0000e-005 |                | 5.0000e-005   | 5.0000e-005 | 0.0000   | 0.0255    | 0.0255    | 7.0000e-005 | 0.0000 | 0.0273 |        |
| Total                 | 2.0277      | 1.2000e-004 | 0.0132 | 0.0000 |               | 5.0000e-005  | 5.0000e-005 |                | 5.0000e-005   | 5.0000e-005 | 0.0000   | 0.0255    | 0.0255    | 7.0000e-005 | 0.0000 | 0.0273 |        |

#### 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 | 0.4687        |                    |               |               |               |                    | 0.0000             | 0.0000         |                    | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000 |
| Consumer Products     | 1.5578        |                    |               |               |               |                    | 0.0000             | 0.0000         |                    | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000 |
| Landscaping           | 1.2400e-003   | 1.2000e-004        | 0.0132        | 0.0000        |               | 5.0000e-005        | 5.0000e-005        | 5.0000e-005    | 5.0000e-005        | 0.0000             | 0.0255        | 0.0255        | 7.0000e-005   | 0.0000             | 0.0273        |               |        |
| <b>Total</b>          | <b>2.0277</b> | <b>1.2000e-004</b> | <b>0.0132</b> | <b>0.0000</b> |               | <b>5.0000e-005</b> | <b>5.0000e-005</b> |                | <b>5.0000e-005</b> | <b>5.0000e-005</b> | <b>0.0000</b> | <b>0.0255</b> | <b>0.0255</b> | <b>7.0000e-005</b> | <b>0.0000</b> | <b>0.0273</b> |        |

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

|             | Total CO2 | CH4    | N2O    | CO2e     |
|-------------|-----------|--------|--------|----------|
| Category    | MT/yr     |        |        |          |
| Mitigated   | 258.9384  | 1.6126 | 0.0399 | 311.1353 |
| Unmitigated | 258.9384  | 1.6126 | 0.0399 | 311.1353 |

### 7.2 Water by Land Use

#### Unmitigated

|                                   | Indoor/Out<br>door Use | Total CO2       | CH4           | N2O           | CO2e            |
|-----------------------------------|------------------------|-----------------|---------------|---------------|-----------------|
| Land Use                          | Mgal                   | MT/yr           |               |               |                 |
| Enclosed Parking<br>with Elevator | 0 / 0                  | 0.0000          | 0.0000        | 0.0000        | 0.0000          |
| Hospital                          | 49.1884 /<br>9.36921   | 258.9384        | 1.6126        | 0.0399        | 311.1353        |
| Parking Lot                       | 0 / 0                  | 0.0000          | 0.0000        | 0.0000        | 0.0000          |
| <b>Total</b>                      |                        | <b>258.9384</b> | <b>1.6126</b> | <b>0.0399</b> | <b>311.1353</b> |

## **Mitigated**

|                                   | Indoor/Out<br>door Use | Total CO2       | CH4           | N2O           | CO2e            |
|-----------------------------------|------------------------|-----------------|---------------|---------------|-----------------|
| Land Use                          | Mgal                   | MT/yr           |               |               |                 |
| Enclosed Parking<br>with Elevator | 0 / 0                  | 0.0000          | 0.0000        | 0.0000        | 0.0000          |
| Hospital                          | 49.1884 /<br>9.36921   | 258.9384        | 1.6126        | 0.0399        | 311.1353        |
| Parking Lot                       | 0 / 0                  | 0.0000          | 0.0000        | 0.0000        | 0.0000          |
| <b>Total</b>                      |                        | <b>258.9384</b> | <b>1.6126</b> | <b>0.0399</b> | <b>311.1353</b> |

## **8.0 Waste Detail**

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### **8.1 Mitigation Measures Waste**

#### **Category/Year**

|             | Total CO2 | CH4     | N2O    | CO2e       |
|-------------|-----------|---------|--------|------------|
|             | MT/yr     |         |        |            |
| Mitigated   | 859.3825  | 50.7881 | 0.0000 | 2,129.0839 |
| Unmitigated | 859.3825  | 50.7881 | 0.0000 | 2,129.0839 |

## 8.2 Waste by Land Use

### Unmitigated

|                                | Waste Disposed | Total CO2       | CH4            | N2O           | CO2e              |
|--------------------------------|----------------|-----------------|----------------|---------------|-------------------|
| Land Use                       | tons           | MT/yr           |                |               |                   |
| Enclosed Parking with Elevator | 0              | 0.0000          | 0.0000         | 0.0000        | 0.0000            |
| Hospital                       | 4233.6         | 859.3825        | 50.7881        | 0.0000        | 2,129.0839        |
| Parking Lot                    | 0              | 0.0000          | 0.0000         | 0.0000        | 0.0000            |
| <b>Total</b>                   |                | <b>859.3825</b> | <b>50.7881</b> | <b>0.0000</b> | <b>2,129.0839</b> |

### Mitigated

|                                | Waste Disposed | Total CO2 | CH4     | N2O    | CO2e       |
|--------------------------------|----------------|-----------|---------|--------|------------|
| Land Use                       | tons           | MT/yr     |         |        |            |
| Enclosed Parking with Elevator | 0              | 0.0000    | 0.0000  | 0.0000 | 0.0000     |
| Hospital                       | 4233.6         | 859.3825  | 50.7881 | 0.0000 | 2,129.0839 |

|             |   |          |         |        |                |
|-------------|---|----------|---------|--------|----------------|
| Parking Lot | 0 | 0.0000   | 0.0000  | 0.0000 | 0.0000         |
| Total       |   | 859.3825 | 50.7881 | 0.0000 | 2,129.083<br>9 |

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

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### 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

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## Palamor Heights - Existing - San Diego County APCD Air District, Summer

**Palamor Heights - Existing**  
**San Diego County APCD Air District, Summer**

## 1.0 Project Characteristics

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### 1.1 Land Usage

| Land Uses                      | Size   | Metric   | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|--------|----------|-------------|--------------------|------------|
| Hospital                       | 392.00 | 1000sqft | 4.47        | 392,001.00         | 0          |
| Enclosed Parking with Elevator | 511.00 | Space    | 4.60        | 204,400.00         | 0          |
| Parking Lot                    | 526.00 | Space    | 4.73        | 210,400.00         | 0          |

### 1.2 Other Project Characteristics

|                            |                          |                            |       |                            |       |
|----------------------------|--------------------------|----------------------------|-------|----------------------------|-------|
| Urbanization               | Urban                    | Wind Speed (m/s)           | 2.6   | Precipitation Freq (Days)  | 31    |
| Climate Zone               | 13                       |                            |       | Operational Year           | 2020  |
| Utility Company            | San Diego Gas & Electric |                            |       |                            |       |
| CO2 Intensity<br>(lb/MWhr) | 720.49                   | CH4 Intensity<br>(lb/MWhr) | 0.029 | N2O Intensity<br>(lb/MWhr) | 0.006 |

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

Project Characteristics - Operational year of 2020.

Land Use - No construction.

Construction Phase - no

Off-road Equipment - No construction.

## Off-road Equipment - No construction.

## Off-road Equipment - No construction.

## Trips and VMT - No construction.

## Grading - No construction.

## Vehicle Trips - Based on Traffic Report.

Fleet Mix - CalEEMod Defaults.

## Vehicle Emission Factors - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

|                           |                        |        |      |
|---------------------------|------------------------|--------|------|
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 7.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblProjectCharacteristics | PrecipitationFrequency | 40     | 31   |
| tblTripsAndVMT            | VendorTripNumber       | 132.00 | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 15.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 18.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 20.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 300.00 | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 15.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 60.00  | 0.00 |
| tblVehicleTrips           | ST_TR                  | 10.18  | 4.15 |
| tblVehicleTrips           | SU_TR                  | 8.91   | 3.63 |
| tblVehicleTrips           | WD_TR                  | 13.22  | 5.41 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

|         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction

|         | ROG    | NOx    | CO     | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Year    | lb/day |        |        |        |               |              |            |                |               |             | lb/day   |           |           |        |        |        |
| 2020    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| 2021    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 |        | 0.0000 |        | 0.0000        |              | 0.0000     |                | 0.0000        |             | 0.0000   |           | 0.0000    |        | 0.0000 |        |

|                   | ROG  | NOx  | CO   | SO2  | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N2O  | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00          | 0.00         | 0.00       | 0.00           | 0.00          | 0.00        | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 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     | 11.1175 | 1.3600e-003 | 0.1468  | 1.0000e-005 |               | 5.3000e-004  | 5.3000e-004 |                | 5.3000e-004   | 5.3000e-004 | 0.3127      | 0.3127      | 8.4000e-004 |        | 0.3337      |      |
| Energy   | 0.6714  | 6.1038      | 5.1272  | 0.0366      |               | 0.4639       | 0.4639      |                | 0.4639        | 0.4639      | 7,324.5118  | 7,324.5118  | 0.1404      | 0.1343 | 7,368.0378  |      |
| Mobile   | 3.8494  | 15.4776     | 42.9893 | 0.1399      | 11.3220       | 0.1350       | 11.4570     | 3.0262         | 0.1267        | 3.1529      | 14,193.2799 | 14,193.2799 | 0.7568      |        | 14,212.2007 |      |
| Total    | 15.6383 | 21.5827     | 48.2633 | 0.1765      | 11.3220       | 0.5994       | 11.9214     | 3.0262         | 0.5911        | 3.6173      | 21,518.1045 | 21,518.1045 | 0.8981      | 0.1343 | 21,580.5721 |      |

## 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              | 11.1175        | 1.3600e-003    | 0.1468         | 1.0000e-005   |                | 5.3000e-004   | 5.3000e-004    | 5.3000e-004    | 5.3000e-004   | 0.3127        | 0.3127             | 8.4000e-004        |               |               | 0.3337             |      |  |
| Energy            | 0.6714         | 6.1038         | 5.1272         | 0.0366        |                | 0.4639        | 0.4639         | 0.4639         | 0.4639        | 7,324.5118    | 7,324.5118         | 0.1404             | 0.1343        | 7,368.0378    |                    |      |  |
| Mobile            | 3.8494         | 15.4776        | 42.9893        | 0.1399        | 11.3220        | 0.1350        | 11.4570        | 3.0262         | 0.1267        | 3.1529        | 14,193.2799        | 14,193.2799        | 0.7568        |               | 14,212.2007        |      |  |
| <b>Total</b>      | <b>15.6383</b> | <b>21.5827</b> | <b>48.2633</b> | <b>0.1765</b> | <b>11.3220</b> | <b>0.5994</b> | <b>11.9214</b> | <b>3.0262</b>  | <b>0.5911</b> | <b>3.6173</b> | <b>21,518.1045</b> | <b>21,518.1045</b> | <b>0.8981</b> | <b>0.1343</b> | <b>21,580.5721</b> |      |  |
|                   | ROG            | NOx            | CO             | SO2           | Fugitive PM10  | Exhaust PM10  | PM10 Total     | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2           | NBio-CO2           | Total CO2     | CH4           | N2O                | CO2e |  |
| Percent Reduction | 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

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### Construction Phase

| Phase Number | Phase Name            | Phase Type            | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1            | Demolition            | Demolition            | 6/1/2020   | 5/31/2020  | 5             | 0        |                   |
| 2            | Site Preparation      | Site Preparation      | 6/27/2020  | 6/26/2020  | 5             | 0        |                   |
| 3            | Grading               | Grading               | 7/11/2020  | 7/10/2020  | 5             | 0        |                   |
| 4            | Building Construction | Building Construction | 8/22/2020  | 8/21/2020  | 5             | 0        |                   |
| 5            | Paving                | Paving                | 10/16/2021 | 10/15/2021 | 5             | 0        |                   |
| 6            | Architectural Coating | Architectural Coating | 11/13/2021 | 11/12/2021 | 5             | 0        |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 9.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 588,002; Non-Residential Outdoor: 196,001; Striped Parking Area:

### OffRoad Equipment

| Phase Name            | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition            | Concrete/Industrial Saws  | 1      | 0.00        | 81          | 0.73        |
| Demolition            | Excavators                | 3      | 0.00        | 158         | 0.38        |
| Demolition            | Rubber Tired Dozers       | 2      | 0.00        | 247         | 0.40        |
| Site Preparation      | Rubber Tired Dozers       | 3      | 0.00        | 247         | 0.40        |
| Site Preparation      | Tractors/Loaders/Backhoes | 4      | 0.00        | 97          | 0.37        |
| Grading               | Excavators                | 2      | 0.00        | 158         | 0.38        |
| Grading               | Graders                   | 1      | 0.00        | 187         | 0.41        |
| Grading               | Rubber Tired Dozers       | 1      | 0.00        | 247         | 0.40        |
| Grading               | Scrapers                  | 2      | 0.00        | 367         | 0.48        |
| Grading               | Tractors/Loaders/Backhoes | 2      | 0.00        | 97          | 0.37        |
| Building Construction | Cranes                    | 1      | 0.00        | 231         | 0.29        |
| Building Construction | Forklifts                 | 3      | 0.00        | 89          | 0.20        |
| Building Construction | Generator Sets            | 1      | 0.00        | 84          | 0.74        |
| Building Construction | Tractors/Loaders/Backhoes | 3      | 0.00        | 97          | 0.37        |
| Building Construction | Welders                   | 1      | 0.00        | 46          | 0.45        |
| Paving                | Pavers                    | 2      | 0.00        | 130         | 0.42        |
| Paving                | Paving Equipment          | 2      | 0.00        | 132         | 0.36        |
| Paving                | Rollers                   | 2      | 0.00        | 80          | 0.38        |
| Architectural Coating | Air Compressors           | 1      | 0.00        | 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 |
|------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition       | 6                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HDHT                  |
| Site Preparation | 7                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

|                       |   |      |      |      |       |      |       |        |         |      |
|-----------------------|---|------|------|------|-------|------|-------|--------|---------|------|
| Grading               | 8 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving                | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

### **3.1 Mitigation Measures Construction**

### **3.2 Demolition - 2020**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

|       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

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

### **3.3 Site Preparation - 2020**

#### Unmitigated Construction On-Site

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

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

## **Mitigated Construction Off-Site**

### **3.4 Grading - 2020**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

## **Mitigated Construction Off-Site**

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

### **3.5 Building Construction - 2020**

## Unmitigated Construction On-Site

## **Unmitigated Construction Off-Site**

|       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

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

### **3.6 Paving - 2021**

#### Unmitigated Construction On-Site

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

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

## **Mitigated Construction Off-Site**

3.7 Architectural Coating - 2021

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

## **Mitigated Construction Off-Site**

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

| Category | lb/day  |        |        |        |         |        |        |        |         |        |        |        | lb/day  |        |        |        |         |        |
|----------|---------|--------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|---------|--------|
|          | Hauling | Vendor | Worker | Total  | Hauling | Vendor |
| Hauling  | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 |
| Vendor   | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 |
| Worker   | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 |
| Total    | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 |

## 4.0 Operational Detail - Mobile

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### 4.1 Mitigation Measures Mobile

| Category    | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2        | NBio- CO2       | Total CO2 | CH4 | N2O | CO2e            |
|-------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|-----------------|-----------------|-----------|-----|-----|-----------------|
|             | lb/day |         |         |        |               |              |            |                |               |             | lb/day          |                 |           |     |     |                 |
| Mitigated   | 3.8494 | 15.4776 | 42.9893 | 0.1399 | 11.3220       | 0.1350       | 11.4570    | 3.0262         | 0.1267        | 3.1529      | 14,193.27<br>99 | 14,193.279<br>9 | 0.7568    |     |     | 14,212.20<br>07 |
| Unmitigated | 3.8494 | 15.4776 | 42.9893 | 0.1399 | 11.3220       | 0.1350       | 11.4570    | 3.0262         | 0.1267        | 3.1529      | 14,193.27<br>99 | 14,193.279<br>9 | 0.7568    |     |     | 14,212.20<br>07 |

### 4.2 Trip Summary Information

|                                | Average Daily Trip Rate |          |          | Unmitigated |        | Mitigated  |            |
|--------------------------------|-------------------------|----------|----------|-------------|--------|------------|------------|
|                                | Land Use                |          | Weekday  | Saturday    | Sunday | Annual VMT | Annual VMT |
| Enclosed Parking with Elevator |                         | 0.00     | 0.00     | 0.00        |        |            |            |
| Hospital                       |                         | 2,120.00 | 1,626.80 | 1422.96     |        | 4,910,862  | 4,910,862  |
| Parking Lot                    |                         | 0.00     | 0.00     | 0.00        |        |            |            |
| Total                          |                         | 2,120.00 | 1,626.80 | 1,422.96    |        | 4,910,862  | 4,910,862  |

## 4.3 Trip Type Information

| Land Use                       | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| Enclosed Parking with Elevator | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |
| Hospital                       | 9.50       | 7.30       | 7.30        | 64.90     | 16.10      | 19.00       | 73             | 25       | 2       |
| Parking Lot                    | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |

## 4.4 Fleet Mix

| Land Use                       | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Enclosed Parking with Elevator | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |
| Hospital                       | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |
| Parking Lot                    | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |

## 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   | 0.6714 | 6.1038 | 5.1272 | 0.0366 |               | 0.4639       | 0.4639     |                | 0.4639        | 0.4639      | 7,324.5118 | 7,324.5118 | 0.1404    | 0.1343 | 7,368.0378 |      |
| NaturalGas Unmitigated | 0.6714 | 6.1038 | 5.1272 | 0.0366 |               | 0.4639       | 0.4639     |                | 0.4639        | 0.4639      | 7,324.5118 | 7,324.5118 | 0.1404    | 0.1343 | 7,368.0378 |      |

### 5.2 Energy by Land Use - NaturalGas

## Unmitigated

|                                | NaturalGas Use | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10 | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2 | Total CO2         | CH4               | N2O           | CO2e          |                   |
|--------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|----------------|---------------|---------------|---------------|-----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use                       | kBTU/yr        | lb/day        |               |               |               |               |              |               |                |               |               |               | lb/day    |                   |                   |               |               |                   |
| Enclosed Parking with Elevator | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| Hospital                       | 62258.4        | 0.6714        | 6.1038        | 5.1272        | 0.0366        |               |              | 0.4639        | 0.4639         |               | 0.4639        | 0.4639        |           | 7,324.5118        | 7,324.5111        | 0.1404        | 0.1343        | 7,368.0378        |
| Parking Lot                    | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| <b>Total</b>                   |                | <b>0.6714</b> | <b>6.1038</b> | <b>5.1272</b> | <b>0.0366</b> |               |              | <b>0.4639</b> | <b>0.4639</b>  |               | <b>0.4639</b> | <b>0.4639</b> |           | <b>7,324.5118</b> | <b>7,324.5111</b> | <b>0.1404</b> | <b>0.1343</b> | <b>7,368.0378</b> |

## Mitigated

|                                | NaturalGas Use | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10 | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2 | Total CO2         | CH4               | N2O           | CO2e          |                   |
|--------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|----------------|---------------|---------------|---------------|-----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use                       | kBTU/yr        | lb/day        |               |               |               |               |              |               |                |               |               |               | lb/day    |                   |                   |               |               |                   |
| Enclosed Parking with Elevator | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| Hospital                       | 62.2584        | 0.6714        | 6.1038        | 5.1272        | 0.0366        |               |              | 0.4639        | 0.4639         |               | 0.4639        | 0.4639        |           | 7,324.5118        | 7,324.5111        | 0.1404        | 0.1343        | 7,368.0378        |
| Parking Lot                    | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| <b>Total</b>                   |                | <b>0.6714</b> | <b>6.1038</b> | <b>5.1272</b> | <b>0.0366</b> |               |              | <b>0.4639</b> | <b>0.4639</b>  |               | <b>0.4639</b> | <b>0.4639</b> |           | <b>7,324.5118</b> | <b>7,324.5111</b> | <b>0.1404</b> | <b>0.1343</b> | <b>7,368.0378</b> |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

|             | ROG     | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4 | N2O | CO2e   |  |
|-------------|---------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-------------|-----|-----|--------|--|
| Category    | lb/day  |             |        |             |               |              |             |                |               |             |          | lb/day    |             |     |     |        |  |
| Mitigated   | 11.1175 | 1.3600e-003 | 0.1468 | 1.0000e-005 |               | 5.3000e-004  | 5.3000e-004 |                | 5.3000e-004   | 5.3000e-004 | 0.3127   | 0.3127    | 8.4000e-004 |     |     | 0.3337 |  |
| Unmitigated | 11.1175 | 1.3600e-003 | 0.1468 | 1.0000e-005 |               | 5.3000e-004  | 5.3000e-004 |                | 5.3000e-004   | 5.3000e-004 | 0.3127   | 0.3127    | 8.4000e-004 |     |     | 0.3337 |  |

## 6.2 Area by SubCategory

### Unmitigated

|                       | ROG            | NOx                | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total         | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2          | CH4 | N2O | CO2e          |  |
|-----------------------|----------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|--------------------|-----|-----|---------------|--|
| SubCategory           | lb/day         |                    |               |                    |               |                    |                    |                |                    |                    |               | lb/day        |                    |     |     |               |  |
| Architectural Coating | 2.5680         |                    |               |                    |               |                    | 0.0000             | 0.0000         |                    | 0.0000             |               |               | 0.0000             |     |     | 0.0000        |  |
| Consumer Products     | 8.5357         |                    |               |                    |               |                    | 0.0000             | 0.0000         |                    | 0.0000             | 0.0000        |               | 0.0000             |     |     | 0.0000        |  |
| Landscaping           | 0.0138         | 1.3600e-003        | 0.1468        | 1.0000e-005        |               | 5.3000e-004        | 5.3000e-004        |                | 5.3000e-004        | 5.3000e-004        | 0.3127        | 0.3127        | 8.4000e-004        |     |     | 0.3337        |  |
| <b>Total</b>          | <b>11.1175</b> | <b>1.3600e-003</b> | <b>0.1468</b> | <b>1.0000e-005</b> |               | <b>5.3000e-004</b> | <b>5.3000e-004</b> |                | <b>5.3000e-004</b> | <b>5.3000e-004</b> | <b>0.3127</b> | <b>0.3127</b> | <b>8.4000e-004</b> |     |     | <b>0.3337</b> |  |

### Mitigated

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

| SubCategory           | lb/day  |             |        |             |  |  |             |             |  |             | lb/day      |  |        |        |             |
|-----------------------|---------|-------------|--------|-------------|--|--|-------------|-------------|--|-------------|-------------|--|--------|--------|-------------|
| Architectural Coating | 2.5680  |             |        |             |  |  | 0.0000      | 0.0000      |  | 0.0000      | 0.0000      |  | 0.0000 |        | 0.0000      |
| Consumer Products     | 8.5357  |             |        |             |  |  | 0.0000      | 0.0000      |  | 0.0000      | 0.0000      |  | 0.0000 |        | 0.0000      |
| Landscaping           | 0.0138  | 1.3600e-003 | 0.1468 | 1.0000e-005 |  |  | 5.3000e-004 | 5.3000e-004 |  | 5.3000e-004 | 5.3000e-004 |  | 0.3127 | 0.3127 | 8.4000e-004 |
| Total                 | 11.1175 | 1.3600e-003 | 0.1468 | 1.0000e-005 |  |  | 5.3000e-004 | 5.3000e-004 |  | 5.3000e-004 | 5.3000e-004 |  | 0.3127 | 0.3127 | 8.4000e-004 |
|                       |         |             |        |             |  |  |             |             |  |             |             |  |        |        | 0.3337      |

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

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### 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

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## Palamor Heights - Existing - San Diego County APCD Air District, Winter

**Palamor Heights - Existing**  
**San Diego County APCD Air District, Winter**

## 1.0 Project Characteristics

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### 1.1 Land Usage

| Land Uses                      | Size   | Metric   | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|--------|----------|-------------|--------------------|------------|
| Hospital                       | 392.00 | 1000sqft | 4.47        | 392,001.00         | 0          |
| Enclosed Parking with Elevator | 511.00 | Space    | 4.60        | 204,400.00         | 0          |
| Parking Lot                    | 526.00 | Space    | 4.73        | 210,400.00         | 0          |

### 1.2 Other Project Characteristics

|                            |                          |                            |       |                            |       |
|----------------------------|--------------------------|----------------------------|-------|----------------------------|-------|
| Urbanization               | Urban                    | Wind Speed (m/s)           | 2.6   | Precipitation Freq (Days)  | 31    |
| Climate Zone               | 13                       |                            |       | Operational Year           | 2020  |
| Utility Company            | San Diego Gas & Electric |                            |       |                            |       |
| CO2 Intensity<br>(lb/MWhr) | 720.49                   | CH4 Intensity<br>(lb/MWhr) | 0.029 | N2O Intensity<br>(lb/MWhr) | 0.006 |

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

Project Characteristics - Operational year of 2020.

Land Use - No construction.

Construction Phase - no

Off-road Equipment - No construction.

## Off-road Equipment - No construction.

## Off-road Equipment - No construction.

## Trips and VMT - No construction.

## Grading - No construction.

## Vehicle Trips - Based on Traffic Report.

Fleet Mix - CalEEMod Defaults.

## Vehicle Emission Factors - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

Vehicle Emission Factors - CalEEMod Defaults.

|                           |                        |        |      |
|---------------------------|------------------------|--------|------|
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 7.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblOffRoadEquipment       | UsageHours             | 8.00   | 0.00 |
| tblProjectCharacteristics | PrecipitationFrequency | 40     | 31   |
| tblTripsAndVMT            | VendorTripNumber       | 132.00 | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 15.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 18.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 20.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 300.00 | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 15.00  | 0.00 |
| tblTripsAndVMT            | WorkerTripNumber       | 60.00  | 0.00 |
| tblVehicleTrips           | ST_TR                  | 10.18  | 4.15 |
| tblVehicleTrips           | SU_TR                  | 8.91   | 3.63 |
| tblVehicleTrips           | WD_TR                  | 13.22  | 5.41 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

|         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction

|         | ROG    | NOx    | CO     | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Year    | lb/day |        |        |        |               |              |            |                |               |             | lb/day   |           |           |        |        |        |
| 2020    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| 2021    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

|                   | ROG  | NOx  | CO   | SO2  | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N2O  | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00          | 0.00         | 0.00       | 0.00           | 0.00          | 0.00        | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 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     | 11.1175 | 1.3600e-003 | 0.1468  | 1.0000e-005 |               | 5.3000e-004  | 5.3000e-004 |                | 5.3000e-004   | 5.3000e-004 |          | 0.3127     | 0.3127     | 8.4000e-004 |        | 0.3337     |
| Energy   | 0.6714  | 6.1038      | 5.1272  | 0.0366      |               | 0.4639       | 0.4639      |                | 0.4639        | 0.4639      |          | 7,324.5118 | 7,324.5118 | 0.1404      | 0.1343 | 7,368.0378 |
| Mobile   | 3.7445  | 15.9217     | 42.6256 | 0.1326      | 11.3220       | 0.1360       | 11.4580     | 3.0262         | 0.1276        | 3.1539      |          | 13,455.40  | 13,455.40  | 0.7615      |        | 13,474.43  |
| Total    | 15.5334 | 22.0268     | 47.8996 | 0.1692      | 11.3220       | 0.6004       | 11.9224     | 3.0262         | 0.5921        | 3.6183      |          | 20,780.22  | 20,780.22  | 0.9027      | 0.1343 | 20,842.81  |
|          |         |             |         |             |               |              |             |                |               |             |          | 79         | 9          |             |        | 09         |

## 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         | 11.1175        | 1.3600e-003    | 0.1468         | 1.0000e-005   |                | 5.3000e-004   | 5.3000e-004    |                | 5.3000e-004   | 5.3000e-004   | 0.3127             | 0.3127             | 8.4000e-004   |               |                    | 0.3337 |  |
| Energy       | 0.6714         | 6.1038         | 5.1272         | 0.0366        |                | 0.4639        | 0.4639         |                | 0.4639        | 0.4639        | 7,324.5118         | 7,324.5118         | 0.1404        | 0.1343        | 7,368.0378         |        |  |
| Mobile       | 3.7445         | 15.9217        | 42.6256        | 0.1326        | 11.3220        | 0.1360        | 11.4580        | 3.0262         | 0.1276        | 3.1539        | 13,455.4033        | 13,455.4033        | 0.7615        |               | 13,474.4394        |        |  |
| <b>Total</b> | <b>15.5334</b> | <b>22.0268</b> | <b>47.8996</b> | <b>0.1692</b> | <b>11.3220</b> | <b>0.6004</b> | <b>11.9224</b> | <b>3.0262</b>  | <b>0.5921</b> | <b>3.6183</b> | <b>20,780.2279</b> | <b>20,780.2279</b> | <b>0.9027</b> | <b>0.1343</b> | <b>20,842.8109</b> |        |  |

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

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### Construction Phase

| Phase Number | Phase Name            | Phase Type            | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1            | Demolition            | Demolition            | 6/1/2020   | 5/31/2020  | 5             | 0        |                   |
| 2            | Site Preparation      | Site Preparation      | 6/27/2020  | 6/26/2020  | 5             | 0        |                   |
| 3            | Grading               | Grading               | 7/11/2020  | 7/10/2020  | 5             | 0        |                   |
| 4            | Building Construction | Building Construction | 8/22/2020  | 8/21/2020  | 5             | 0        |                   |
| 5            | Paving                | Paving                | 10/16/2021 | 10/15/2021 | 5             | 0        |                   |
| 6            | Architectural Coating | Architectural Coating | 11/13/2021 | 11/12/2021 | 5             | 0        |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 9.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 588,002; Non-Residential Outdoor: 196,001; Striped Parking Area:

### OffRoad Equipment

| Phase Name            | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition            | Concrete/Industrial Saws  | 1      | 0.00        | 81          | 0.73        |
| Demolition            | Excavators                | 3      | 0.00        | 158         | 0.38        |
| Demolition            | Rubber Tired Dozers       | 2      | 0.00        | 247         | 0.40        |
| Site Preparation      | Rubber Tired Dozers       | 3      | 0.00        | 247         | 0.40        |
| Site Preparation      | Tractors/Loaders/Backhoes | 4      | 0.00        | 97          | 0.37        |
| Grading               | Excavators                | 2      | 0.00        | 158         | 0.38        |
| Grading               | Graders                   | 1      | 0.00        | 187         | 0.41        |
| Grading               | Rubber Tired Dozers       | 1      | 0.00        | 247         | 0.40        |
| Grading               | Scrapers                  | 2      | 0.00        | 367         | 0.48        |
| Grading               | Tractors/Loaders/Backhoes | 2      | 0.00        | 97          | 0.37        |
| Building Construction | Cranes                    | 1      | 0.00        | 231         | 0.29        |
| Building Construction | Forklifts                 | 3      | 0.00        | 89          | 0.20        |
| Building Construction | Generator Sets            | 1      | 0.00        | 84          | 0.74        |
| Building Construction | Tractors/Loaders/Backhoes | 3      | 0.00        | 97          | 0.37        |
| Building Construction | Welders                   | 1      | 0.00        | 46          | 0.45        |
| Paving                | Pavers                    | 2      | 0.00        | 130         | 0.42        |
| Paving                | Paving Equipment          | 2      | 0.00        | 132         | 0.36        |
| Paving                | Rollers                   | 2      | 0.00        | 80          | 0.38        |
| Architectural Coating | Air Compressors           | 1      | 0.00        | 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 |
|------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition       | 6                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HDHT                  |
| Site Preparation | 7                       | 0.00               | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

|                       |   |      |      |      |       |      |       |        |         |      |
|-----------------------|---|------|------|------|-------|------|-------|--------|---------|------|
| Grading               | 8 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving                | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

### **3.1 Mitigation Measures Construction**

### **3.2 Demolition - 2020**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

|       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

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

### 3.3 Site Preparation - 2020

#### Unmitigated Construction On-Site

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

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

## **Mitigated Construction Off-Site**

### **3.4 Grading - 2020**

## **Unmitigated Construction On-Site**

## Unmitigated Construction Off-Site

## **Mitigated Construction On-Site**

## **Mitigated Construction Off-Site**

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

## **3.5 Building Construction - 2020**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

|       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

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

### **3.6 Paving - 2021**

#### Unmitigated Construction On-Site

## **Unmitigated Construction Off-Site**

## Mitigated Construction On-Site

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

## **Mitigated Construction Off-Site**

**3.7 Architectural Coating - 2021**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

## **Mitigated Construction Off-Site**

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

| Category | lb/day  |        |        |        |         |        |        |        |         |        |        |        | lb/day  |        |        |        |        |  |
|----------|---------|--------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--|
|          | Hauling | Vendor | Worker | Total  |        |  |
| Hauling  | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
| Vendor   | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
| Worker   | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |
| Total    | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| Category    | ROG    | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2  | NBio- CO2  | Total CO2 | CH4 | N2O | CO2e      |
|-------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|-----------|------------|-----------|-----|-----|-----------|
|             | lb/day |         |         |        |               |              |            |                |               |             | lb/day    |            |           |     |     |           |
| Mitigated   | 3.7445 | 15.9217 | 42.6256 | 0.1326 | 11.3220       | 0.1360       | 11.4580    | 3.0262         | 0.1276        | 3.1539      | 13,455.40 | 13,455.403 | 0.7615    |     |     | 13,474.43 |
| Unmitigated | 3.7445 | 15.9217 | 42.6256 | 0.1326 | 11.3220       | 0.1360       | 11.4580    | 3.0262         | 0.1276        | 3.1539      | 13,455.40 | 13,455.403 | 0.7615    |     |     | 13,474.43 |

### 4.2 Trip Summary Information

|                                | Average Daily Trip Rate |          |          | Unmitigated |        | Mitigated  |            |
|--------------------------------|-------------------------|----------|----------|-------------|--------|------------|------------|
|                                | Land Use                |          | Weekday  | Saturday    | Sunday | Annual VMT | Annual VMT |
| Enclosed Parking with Elevator |                         | 0.00     | 0.00     | 0.00        |        |            |            |
| Hospital                       |                         | 2,120.00 | 1,626.80 | 1422.96     |        | 4,910,862  | 4,910,862  |
| Parking Lot                    |                         | 0.00     | 0.00     | 0.00        |        |            |            |
| Total                          |                         | 2,120.00 | 1,626.80 | 1,422.96    |        | 4,910,862  | 4,910,862  |

## 4.3 Trip Type Information

| Land Use                       | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| Enclosed Parking with Elevator | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |
| Hospital                       | 9.50       | 7.30       | 7.30        | 64.90     | 16.10      | 19.00       | 73             | 25       | 2       |
| Parking Lot                    | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |

## 4.4 Fleet Mix

| Land Use                       | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Enclosed Parking with Elevator | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |
| Hospital                       | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |
| Parking Lot                    | 0.588316 | 0.042913 | 0.184449 | 0.110793 | 0.017294 | 0.005558 | 0.015534 | 0.023021 | 0.001902 | 0.002024 | 0.006181 | 0.000745 | 0.001271 |

## 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   | 0.6714 | 6.1038 | 5.1272 | 0.0366 |               | 0.4639       | 0.4639     |                | 0.4639        | 0.4639      | 7,324.5118 | 7,324.5118 | 0.1404    | 0.1343 | 7,368.0378 |      |
| NaturalGas Unmitigated | 0.6714 | 6.1038 | 5.1272 | 0.0366 |               | 0.4639       | 0.4639     |                | 0.4639        | 0.4639      | 7,324.5118 | 7,324.5118 | 0.1404    | 0.1343 | 7,368.0378 |      |

### 5.2 Energy by Land Use - NaturalGas

## Unmitigated

|                                | NaturalGas Use | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10 | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2 | Total CO2         | CH4               | N2O           | CO2e          |                   |
|--------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|----------------|---------------|---------------|---------------|-----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use                       | kBTU/yr        | lb/day        |               |               |               |               |              |               |                |               |               |               | lb/day    |                   |                   |               |               |                   |
| Enclosed Parking with Elevator | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| Hospital                       | 62258.4        | 0.6714        | 6.1038        | 5.1272        | 0.0366        |               |              | 0.4639        | 0.4639         |               | 0.4639        | 0.4639        |           | 7,324.5118        | 7,324.5111        | 0.1404        | 0.1343        | 7,368.0378        |
| Parking Lot                    | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| <b>Total</b>                   |                | <b>0.6714</b> | <b>6.1038</b> | <b>5.1272</b> | <b>0.0366</b> |               |              | <b>0.4639</b> | <b>0.4639</b>  |               | <b>0.4639</b> | <b>0.4639</b> |           | <b>7,324.5118</b> | <b>7,324.5111</b> | <b>0.1404</b> | <b>0.1343</b> | <b>7,368.0378</b> |

## Mitigated

|                                | NaturalGas Use | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10 | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2 | Total CO2         | CH4               | N2O           | CO2e          |                   |
|--------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|----------------|---------------|---------------|---------------|-----------|-------------------|-------------------|---------------|---------------|-------------------|
| Land Use                       | kBTU/yr        | lb/day        |               |               |               |               |              |               |                |               |               |               | lb/day    |                   |                   |               |               |                   |
| Enclosed Parking with Elevator | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| Hospital                       | 62.2584        | 0.6714        | 6.1038        | 5.1272        | 0.0366        |               |              | 0.4639        | 0.4639         |               | 0.4639        | 0.4639        |           | 7,324.5118        | 7,324.5111        | 0.1404        | 0.1343        | 7,368.0378        |
| Parking Lot                    | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               |              | 0.0000        | 0.0000         |               | 0.0000        | 0.0000        |           | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| <b>Total</b>                   |                | <b>0.6714</b> | <b>6.1038</b> | <b>5.1272</b> | <b>0.0366</b> |               |              | <b>0.4639</b> | <b>0.4639</b>  |               | <b>0.4639</b> | <b>0.4639</b> |           | <b>7,324.5118</b> | <b>7,324.5111</b> | <b>0.1404</b> | <b>0.1343</b> | <b>7,368.0378</b> |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

|             | ROG     | NOx         | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2   | CH4 | N2O | CO2e   |  |
|-------------|---------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-------------|-----|-----|--------|--|
| Category    | lb/day  |             |        |             |               |              |             |                |               |             |          |           | lb/day      |     |     |        |  |
| Mitigated   | 11.1175 | 1.3600e-003 | 0.1468 | 1.0000e-005 |               | 5.3000e-004  | 5.3000e-004 |                | 5.3000e-004   | 5.3000e-004 | 0.3127   | 0.3127    | 8.4000e-004 |     |     | 0.3337 |  |
| Unmitigated | 11.1175 | 1.3600e-003 | 0.1468 | 1.0000e-005 |               | 5.3000e-004  | 5.3000e-004 |                | 5.3000e-004   | 5.3000e-004 | 0.3127   | 0.3127    | 8.4000e-004 |     |     | 0.3337 |  |

## 6.2 Area by SubCategory

### Unmitigated

|                       | ROG            | NOx                | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total         | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2          | CH4 | N2O | CO2e          |  |
|-----------------------|----------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|--------------------|-----|-----|---------------|--|
| SubCategory           | lb/day         |                    |               |                    |               |                    |                    |                |                    |                    |               |               | lb/day             |     |     |               |  |
| Architectural Coating | 2.5680         |                    |               |                    |               |                    | 0.0000             | 0.0000         |                    | 0.0000             |               |               | 0.0000             |     |     | 0.0000        |  |
| Consumer Products     | 8.5357         |                    |               |                    |               |                    | 0.0000             | 0.0000         |                    | 0.0000             | 0.0000        |               | 0.0000             |     |     | 0.0000        |  |
| Landscaping           | 0.0138         | 1.3600e-003        | 0.1468        | 1.0000e-005        |               | 5.3000e-004        | 5.3000e-004        |                | 5.3000e-004        | 5.3000e-004        | 0.3127        | 0.3127        | 8.4000e-004        |     |     | 0.3337        |  |
| <b>Total</b>          | <b>11.1175</b> | <b>1.3600e-003</b> | <b>0.1468</b> | <b>1.0000e-005</b> |               | <b>5.3000e-004</b> | <b>5.3000e-004</b> |                | <b>5.3000e-004</b> | <b>5.3000e-004</b> | <b>0.3127</b> | <b>0.3127</b> | <b>8.4000e-004</b> |     |     | <b>0.3337</b> |  |

### Mitigated

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

| SubCategory           | lb/day  |             |        |             |  |  |             |             |  |             | lb/day      |  |        |        |             |
|-----------------------|---------|-------------|--------|-------------|--|--|-------------|-------------|--|-------------|-------------|--|--------|--------|-------------|
| Architectural Coating | 2.5680  |             |        |             |  |  | 0.0000      | 0.0000      |  | 0.0000      | 0.0000      |  | 0.0000 |        | 0.0000      |
| Consumer Products     | 8.5357  |             |        |             |  |  | 0.0000      | 0.0000      |  | 0.0000      | 0.0000      |  | 0.0000 |        | 0.0000      |
| Landscaping           | 0.0138  | 1.3600e-003 | 0.1468 | 1.0000e-005 |  |  | 5.3000e-004 | 5.3000e-004 |  | 5.3000e-004 | 5.3000e-004 |  | 0.3127 | 0.3127 | 8.4000e-004 |
| Total                 | 11.1175 | 1.3600e-003 | 0.1468 | 1.0000e-005 |  |  | 5.3000e-004 | 5.3000e-004 |  | 5.3000e-004 | 5.3000e-004 |  | 0.3127 | 0.3127 | 8.4000e-004 |
|                       |         |             |        |             |  |  |             |             |  |             |             |  |        |        | 0.3337      |

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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| 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

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## Appendix B

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### Carbon Monoxide Hotspot Analysis



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: North Ivy Street & East Valley Parkway  
RUN: STANDARD RUN (WORST CASE ANGLE)  
POLLUTANT: CO

### I. SITE VARIABLES

|                    |                      |               |
|--------------------|----------------------|---------------|
| U= 1.0 M/S         | Z0= 400. CM          | ALT= 83.8 (M) |
| BRG= WORST CASE    | VD= 0.0 CM/S         |               |
| CLAS= 7 (G)        | VS= 0.0 CM/S         |               |
| MIXH= 1000. M      | AMB= 1.7 PPM         |               |
| SIGTH= 10. DEGREES | TEMP= 6.8 DEGREE (C) |               |

### III. LINK VARIABLES

| LINK<br>DESCRIPTION<br>(FT) | * | LINK<br>COORDINATES<br>(FT) | *    | EF<br>(G/MI) | H<br>(FT) | W |      |      |     |     |  |
|-----------------------------|---|-----------------------------|------|--------------|-----------|---|------|------|-----|-----|--|
| LINK<br>DESCRIPTION<br>(FT) | * | X1                          | Y1   | X2           | Y2        | * | TYPE | VPH  |     |     |  |
| -----*                      |   |                             |      |              |           |   |      |      |     |     |  |
| --                          |   |                             |      |              |           |   |      |      |     |     |  |
| A. WBRA<br>33.0             | * | 500                         | 36   | 30           | 36        | * | AG   | 0    | 2.6 | 0.0 |  |
| B. WBTA<br>33.0             | * | 500                         | 18   | -30          | 18        | * | AG   | 0    | 2.6 | 0.0 |  |
| C. WBLA<br>33.0             | * | 500                         | -12  | -18          | -12       | * | AG   | 0    | 2.6 | 0.0 |  |
| D. WBD<br>33.0              | * | -30                         | 18   | -500         | 18        | * | AG   | 10   | 2.6 | 0.0 |  |
| E. EBLA<br>33.0             | * | -500                        | -12  | 30           | -12       | * | AG   | 20   | 2.6 | 0.0 |  |
| F. EBTA<br>33.0             | * | -500                        | -54  | -18          | -54       | * | AG   | 1520 | 2.6 | 0.0 |  |
| G. EBRA<br>33.0             | * | 0                           | -36  | 500          | -36       | * | AG   | 10   | 2.6 | 0.0 |  |
| H. EBD<br>33.0              | * | 12                          | -500 | 12           | 18        | * | AG   | 1930 | 2.6 | 0.0 |  |
| I. NBLA<br>33.0             | * | 30                          | -500 | 30           | -12       | * | AG   | 410  | 2.6 | 0.0 |  |
| J. NBTA<br>33.0             | * | 42                          | -500 | 42           | -36       | * | AG   | 40   | 2.6 | 0.0 |  |
| K. NBRA<br>33.0             | * | 30                          | -12  | 30           | 500       | * | AG   | 0    | 2.6 | 0.0 |  |
| L. NBD<br>33.0              | * | 0                           | 500  | 0            | -36       | * | AG   | 50   | 2.6 | 0.0 |  |
| M. SBLA<br>33.0             | * | -18                         | 500  | -18          | -12       | * | AG   | 10   | 2.6 | 0.0 |  |
| N. SBTA<br>33.0             | * | -30                         | 500  | -30          | 18        | * | AG   | 20   | 2.6 | 0.0 |  |

|         |   |      |     |     |      |   |    |    |     |     |
|---------|---|------|-----|-----|------|---|----|----|-----|-----|
| O. SBRA | * | -18  | -12 | -18 | -500 | * | AG | 0  | 2.6 | 0.0 |
| 33.0    |   |      |     |     |      |   |    |    |     |     |
| P. SBD  | * | -500 | -36 | 0   | -36  | * | AG | 40 | 2.6 | 0.0 |
| 33.0    |   |      |     |     |      |   |    |    |     |     |

### III. RECEPTOR LOCATIONS

| RECEPTOR | * | COORDINATES (FT) |     |     |
|----------|---|------------------|-----|-----|
|          | * | X                | Y   | Z   |
| 1. SR1   | * | -40              | 25  | 5.9 |
| 2. SR2   | * | 40               | 40  | 5.9 |
| 3. SR3   | * | -30              | -60 | 5.9 |
| 4. SR4   | * | 50               | -40 | 5.9 |

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: North Ivy Street & East Valley Parkway  
RUN: STANDARD RUN (WORST CASE ANGLE)  
POLLUTANT: CO

#### IV. MODEL RESULTS (WORST CASE WIND ANGLE )



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: SouthIvy Street & East Grand Avenue  
RUN: STANDARD RUN (WORST CASE ANGLE)  
POLLUTANT: CO

### I. SITE VARIABLES

|                    |                      |               |
|--------------------|----------------------|---------------|
| U= 1.0 M/S         | Z0= 400. CM          | ALT= 83.8 (M) |
| BRG= WORST CASE    | VD= 0.0 CM/S         |               |
| CLAS= 7 (G)        | VS= 0.0 CM/S         |               |
| MIXH= 1000. M      | AMB= 1.7 PPM         |               |
| SIGTH= 10. DEGREES | TEMP= 6.8 DEGREE (C) |               |

### III. LINK VARIABLES

| LINK<br>DESCRIPTION<br>(FT) | *  | LINK<br>COORDINATES<br>(FT) | *    | EF<br>(G/MI) | H<br>(FT) | W  |
|-----------------------------|----|-----------------------------|------|--------------|-----------|----|
| X1                          | Y1 | X2                          | Y2   | VPH          |           |    |
| -----*                      |    |                             |      |              |           |    |
| --                          |    |                             |      |              |           |    |
| A. WBRA<br>33.0             | *  | 500                         | 36   | 30           | 36 *      | AG |
| B. WBTA<br>33.0             | *  | 500                         | 18   | -30          | 18 *      | AG |
| C. WBLA<br>33.0             | *  | 500                         | -12  | -18          | -12 *     | AG |
| D. WBD<br>33.0              | *  | -30                         | 18   | -500         | 18 *      | AG |
| E. EBLA<br>33.0             | *  | -500                        | -12  | 30           | -12 *     | AG |
| F. EBTA<br>33.0             | *  | -500                        | -54  | -18          | -54 *     | AG |
| G. EBRA<br>33.0             | *  | 0                           | -36  | 500          | -36 *     | AG |
| H. EBD<br>33.0              | *  | 12                          | -500 | 12           | 18 *      | AG |
| I. NBLA<br>33.0             | *  | 30                          | -500 | 30           | -12 *     | AG |
| J. NBTA<br>33.0             | *  | 42                          | -500 | 42           | -36 *     | AG |
| K. NBRA<br>33.0             | *  | 30                          | -12  | 30           | 500 *     | AG |
| L. NBD<br>33.0              | *  | 0                           | 500  | 0            | -36 *     | AG |
| M. SBLA<br>33.0             | *  | -18                         | 500  | -18          | -12 *     | AG |
| N. SBTA<br>33.0             | *  | -30                         | 500  | -30          | 18 *      | AG |

|         |   |      |     |     |      |   |    |    |     |     |
|---------|---|------|-----|-----|------|---|----|----|-----|-----|
| O. SBRA | * | -18  | -12 | -18 | -500 | * | AG | 40 | 2.6 | 0.0 |
| 33.0    |   |      |     |     |      |   |    |    |     |     |
| P. SBD  | * | -500 | -36 | 0   | -36  | * | AG | 32 | 2.6 | 0.0 |
| 33.0    |   |      |     |     |      |   |    |    |     |     |

### III. RECEPTOR LOCATIONS

| RECEPTOR | * | COORDINATES (FT) |     |     |
|----------|---|------------------|-----|-----|
|          | * | X                | Y   | Z   |
| 1. SR1   | * | -40              | 25  | 5.9 |
| 2. SR2   | * | 40               | 40  | 5.9 |
| 3. SR3   | * | -30              | -60 | 5.9 |
| 4. SR4   | * | 50               | -40 | 5.9 |

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: SouthIvy Street & East Grand Avenue  
RUN: STANDARD RUN (WORST CASE ANGLE)  
POLLUTANT: CO

#### IV. MODEL RESULTS (WORST CASE WIND ANGLE )

| RECEPTOR | * | *     | PRED | *     | CONC/LINK |       |     |     |     |     |     |     |     |
|----------|---|-------|------|-------|-----------|-------|-----|-----|-----|-----|-----|-----|-----|
|          | * | BRG   | *    | CONC  | *         | (PPM) |     |     |     |     |     |     |     |
|          | * | (DEG) | *    | (PPM) | *         | A     | B   | C   | D   | E   | F   | G   | H   |
| 1. SR1   | * | 95.   | *    | 2.0   | *         | 0.0   | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2. SR2   | * | 255.  | *    | 2.0   | *         | 0.0   | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| 3. SR3   | * | 276.  | *    | 2.0   | *         | 0.0   | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| 4. SR4   | * | 271.  | *    | 2.0   | *         | 0.0   | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |

