HELIX Environmental Planning

Escondido Centre City Parkway Condominium Project

Air Quality Technical Report

February 2021 | WRS-06

Prepared for:

Warmington Residential
3090 Pullman Street
Costa Mesa, CA 92626

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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TABLE OF CONTENTS

Section **Page**

TABLE OF CONTENTS (cont.)

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

ADT	average daily trips
APN	Assessor's Parcel Number
AQIA	Air Quality Impact Assessment
BMPs	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CO	carbon monoxide
CY	cubic yards
DPM	diesel particulate matter
FEIR	Final Environmental Impact Report
g/L	grams per liter
H_2S	hydrogen sulfide
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
LLG	Linscott, Law & Greenspan Engineers
LOS	level of service
MEI	maximally exposed individual
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone

ACRONYMS AND ABBREVIATIONS (cont.)

Pb	lead
PM	particulate matter
PM_{10}	respirable particulate matter less than 10 microns
$PM_{2.5}$	fine particulate matter less than 2.5 microns
RAQS	Regional Air Quality Strategy
ROG	reactive organic gas
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SO_2	sulfur dioxide
TAC	toxic air contaminant
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

This report presents an assessment of air quality impacts during construction and operation of the proposed Escondido Centre City Parkway Condominium Project (project), located at the southeast corner of the intersection of South Escondido Boulevard and Sherman Way in the City of Escondido, California.

The project would result in emissions of air pollutants during both the construction phase and operational phase of the project. Construction best management practices (BMPs) would be implemented as part of the project, including measures to minimize fugitive dust control emissions, such as watering twice per day during grading and stabilizing storage piles. The project would comply with San Diego Air Pollution Control District (SDAPCD) Rule 55, which requires that no visible dust is emitted beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period, and would incorporate measures to minimize the track-out/carry-out of visible roadway dust. Emissions of all criteria pollutants would be below the daily thresholds during construction, and short-term construction impacts would be less than significant.

Operational emissions associated with the project would include vehicular traffic, energy use, and area sources such as landscaping and the use of consumer products. The project would be designed to meet the 2019 California Building Energy Efficiency Standards (California Code of Regulations [CCR] Title 24, Part 6) and would include a solar photovoltaic system that provides annual electrical output equal to or greater than the project's annual electrical usage. Criteria pollutant emissions would not exceed the daily screening level thresholds during project operation.

Development of the project would be consistent with the SDAPCD Attainment Plan for San Diego County and would not result in cumulatively considerable emissions of nonattainment air pollutants exceeding the screening level thresholds.

Project-generated traffic would not result in a carbon monoxide (CO) hot spot. Construction and operation of the project also would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants (TACs). In addition, evaluation of potential odors from the project indicated that associated impacts would be less than significant.

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1.0 INTRODUCTION

This report presents an assessment of air quality impacts during construction and operation of the proposed Escondido Centre City Parkway Condominium Project (project), located at the southeast corner of the intersection of South Escondido Boulevard and Sherman Way in the City of Escondido, California. Analysis within this report addresses the relevant issues listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines and addresses compliance with City of Escondido (City) regulations.

1.1 PROJECT LOCATION

The project is located within a 3.47-gross-acre site comprised of five parcels (Assessor's Parcel Numbers [APNs] 236-390-02, -03, -52, -53, and -54). The site reference address is 2200 South Escondido Boulevard, Escondido, CA 92025, which is bounded by Sherman Way and a mobile home park on the north; a tire shop, commercial center, and multi-family residences to the south, single-family residences to the east, and South Escondido Boulevard to the west (see Figures 1, *Regional Location,* and Figure 2, *Aerial Photograph*). The western portion of the site, totaling 2.39 acres is within the Centre City Specific Plan and is designated as S-P (Specific Plan) and zoned as Specific Plan Area SPA-15 (Specific Plan Area). The eastern portion of the site, totaling 1.08 acres, is designated as Urban-1 (Residential, 5.5 DU/acre) and zoned as R-1-10 (Single Family Residential, 10,000 square feet lot, minimum).

1.2 PROJECT DESCRIPTION

The project proposes to demolish the existing on-site uses and construct 62 condominium units within ten three-story buildings (see Figure 3, *Site Plan*). The unit mix is proposed to include 16 two-bedroom units, 38 three-bedroom units, and 8 four-bedroom units. Each unit would provide garage parking for two vehicles and an additional 16 guest parking spaces and 17 unit-specific driveway spaces would be provided, for a total of 157 parking spaces. In addition, 16 dedicated bike parking spaces would be provided.

The project would provide approximately 30,000 square feet of useable/active shared open space. An additional 21,000 square feet of open space would be divided among private patios and decks and landscaped slopes. Buildings 2 through 9 are designed to have entrances facing landscaped courtyards, while entrances to building 1 and 10 are landscaped along the project's proposed South Escondido Boulevard frontage. Common open space would include group gathering areas with tables and chairs situated under a shade trellis as well as two barbeques and an activity lawn for communal use. Beyond providing outdoor amenities for the project site residents, the common open space also acts as a visual buffer between the site structures and the existing residential neighborhood to the east of Cranston Drive. Landscaping would include nearly 100 low branching mature trees that would be planted throughout the site, providing both shade and visual interest.

Construction of the project is expected to occur over a period of approximately two and a half years. Construction would begin in winter 2021 with site preparation and demolition of the existing on-site uses, and is expected to be completed in summer 2023. Remedial grading is anticipated to require approximately 31,400 cubic yards (CY) of cut and 35,990 CY of fill for a net import of 4,590 CY during construction. Existing materials such as demolished building materials, concrete, asphalt, and vegetative material would be exported off site.

1.3 CONSTRUCTION BEST MANAGEMENT PRACTICES

The project would incorporate best management practices (BMPs) during construction to reduce emissions of fugitive dust. San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control states that no dust and/or dirt shall leave the property line. SDAPCD Rule 55 requires the following:

1) **Airborne Dust Beyond the Property Line:** No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.

2) **Track-Out/Carry-Out:** Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:

    a) be minimized by the use of any of the following or equally effective trackout/carry-out and erosion control measures that apply to the project or operation:

        i) track-out grates or gravel beds at each egress point,

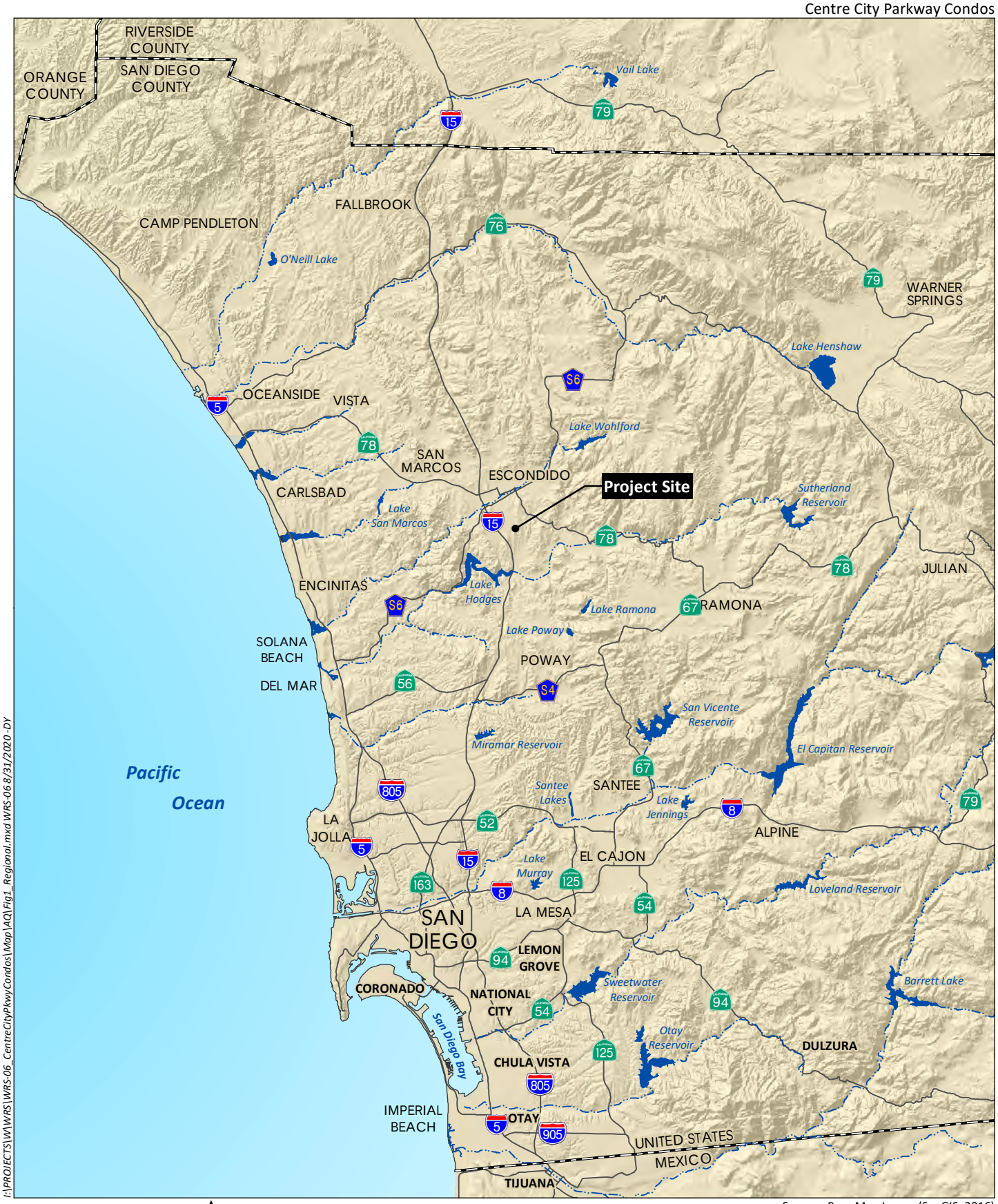
        ii) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks;

        iii) using secured tarps or cargo covering, watering, or treating of transported material; and

    b) be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM_{10}-efficient (particulate matter less than 10 microns) street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

The project would implement the BMP control measures listed below:

- A minimum of two applications of water during grading between dozer/scraper passes;
- Paving, chip sealing, or chemical stabilization of internal roadways after completion of grading;
- Termination of grading if winds exceed 25 miles per hour (mph);
- Maintenance of a minimum soil moisture of 12 percent in all exposed surfaces;
- Stabilization of dirt storage piles by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds would be limited on unpaved roads to 15 mph.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

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0 100 Feet

Source: Aerial (SanGIS, 2017)

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Aerial Photograph

Figure 2

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0 100 Feet

Source: Aerial (SanGIS, 2017)

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Site Plan

Figure 3

1.4 PROJECT DESIGN FEATURES

1.4.1 Area Source Reductions

The project would implement the use of low-volatile organic compound (VOC) coating exceeding the requirements of SDAPCD Rule 67.

- All interior and exterior coatings are to be less than or equal to a VOC content of 50 grams per liter (g/L).

1.4.2 Energy Efficiencies

The project would be designed to meet the 2019 California Building Energy Efficiency Standards (California Code of Regulations [CCR] Title 24, Part 6). In accordance with the requirements, the project would:

- Include a solar photovoltaic system that provides annual electrical output equal to or greater than the project's annual electrical usage;
- Install ceiling, attic, and wall insulation;
- Install window glazing;
- Have the installation of all heating, ventilation, and air conditioning (HVAC) units verified by a third party.

2.0 REGULATORY SETTING

2.1 CRITERIA POLLUTANTS

2.1.1 Pollutants of Concern

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, air pollutants include the following compounds:

- Ozone (O_3)
- Reactive Organic Gases (ROGs) or VOCs
- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO_2)
- Respirable Particulate Matter (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$)
- Sulfur Dioxide (SO_2)
- Lead (Pb)

The following specific descriptions of health effects for each of the air pollutants potentially associated with project construction and operation are based on information provided by the U.S. Environmental Protection Agency (USEPA; 2007) and the California Air Resources Board (CARB; 2020).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and nitrogen oxides (NO_X), both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Reactive Organic Gases. ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a product of fuel combustion. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter (PM_{10}) refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter ($PM_{2.5}$) refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified a carcinogen by CARB.

Sulfur Dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district, lead is not an air pollutant of concern for the proposed project.

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required

the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for the criteria pollutants discussed above. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. Effective June 4, 2018, the USEPA classified the San Diego Air Basin (SDAB) as a "Moderate" nonattainment area for the 2015 8-hour Ozone NAAQS (USEPA 2018). The SDAB is an attainment area for the NAAQS for all other criteria pollutants, including PM_{10} and $PM_{2.5}$ (CARB 2018). The SDAB is currently classified as a nonattainment area under the CAAQS for ozone, PM_{10}, and $PM_{2.5}$ (SDAPCD 2017).

Table 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	

Table 1
AMBIENT AIR QUALITY STANDARDS (CONTINUED)

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	**No Federal Standards**
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Source: CARB 2016

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information of the data presented in this table can be found at the CARB website (www.arb.ca.gov).
O_3: ozone; ppm: parts per million; µg/m^3: micrograms per cubic meter; PM_{10}: large particulate matter;
AAM: Annual Arithmetic Mean; $PM_{2.5}$: fine particulate matter; CO: carbon monoxide; mg/m^3: milligrams per cubic meter; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer; –: No Standard.

The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for the County. The SDAPCD and 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. SDAPCD has prepared an Attainment Plan for San Diego County (SDAPCD 2020) demonstrating how the SDAB will further reduce air pollutant emissions to attain the current NAAQS for ozone. The Attainment Plan was approved by the SDAPCD Board on October 14, 2020 and by CARB on November 19, 2020. The plan will be submitted to the USEPA as a revision to the California State Implementation Plan (SIP). The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The current federal and state attainment status for San Diego County is presented in Table 2, *San Diego Air Basin Attainment Status*.

Table 2
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	(No federal standard)	Nonattainment
O_3 (8-hour)	Moderate Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassifiable
Visibility	(No federal standard)	Unclassifiable

Source: SDAPCD 2017

2.2 TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. Air toxics 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 farms, landfills, construction sites, and residential areas. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Public exposure to TACs is a significant environmental health issue in California.

2.3 ODORS

The State of California Health and Safety Code Sections 41700 and 41705 and SDAPCD Rule 51 (commonly referred to as public nuisance law) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area will be considered to be a significant, adverse odor impact.

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity.

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

The predominant wind direction in the vicinity of the project site, as measured at the Romana Airport Station (approximately 10 miles southeast of the project site) is from the west and the average wind speed is 4.4 miles per hour (Iowa Environmental Mesonet 2020). The hottest month in the vicinity of the project site is August, with a mean maximum temperature of 86.4 degrees Fahrenheit (ºF), and the coldest month is December, with a mean minimum temperature of 38.6ºF. Total precipitation in the

project area averages approximately 13 inches annually. Precipitation occurs mostly during the winter and is relatively infrequent during the summer (Western Regional Climate Center 2016).

3.2 EXISTING AIR QUALITY

3.2.1 Criteria Pollutants

3.2.1.1 Attainment Designations

Attainment designations are discussed in Section 2.1.1 and Table 2. The SDAB is classified as a moderate nonattainment area for the 8-hour NAAQS for ozone. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (serious nonattainment), PM_{10}, and $PM_{2.5}$. The SDAB is an attainment area for all other criteria pollutants.

3.2.1.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the county. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the project site is the Del Mar-Mira Costa College station located in the city of Del Mar, approximately 15 miles southwest of the project site; however, because the San Diego-Kearny Mesa station, which is the next closest station to the project site, located approximately 17 miles to the south in the city of San Diego, includes more recent and comprehensive data, data from this station is used herein. Air quality data for this monitoring station are shown in Table 3, *Air Quality Monitoring Data.*

From 2016 to 2018, monitoring data at the San Diego-Kearny Villa Road station show acceptable levels of NO_2, $PM_{2.5}$ and PM_{10}. The state 8-hour ozone standard was violated three times in 2016, six times in 2017, and five times in 2018, and the federal 8-hour ozone standard was violated four times in 2017 and one time in 2018. The 1-hour ozone standard was violated twice in 2017 and once in 2018.

Table 3
AIR QUALITY MONITORING DATA

Pollutant	2016	2017	2018
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.087	0.097	0.102
Days above 1-hour state standard (>0.09 ppm)	0	2	1
Maximum 8-hour concentration (ppm)	0.075	0.083	0.077
Days above 8-hour state standard (>0.070 ppm)	3	6	5
Days above 8-hour federal standard (>0.075 ppm)	0	4	1
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour concentration (µg/m^3)	36.0	46.0	38.0
Days above state standard (>50 µg/m^3)	0	0	0
Days above federal standard (>150 µg/m^3)	0	0	0
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m^3)	19.4	27.5	32.2
Days above federal standard (>35 µg/m^3)	0	0	0

Table 3
AIR QUALITY MONITORING DATA (CONTINUED)

Pollutant	2016	2017	2018
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.053	0.054	0.045
Days above state 1-hour standard (0.18 ppm)	0	0	0

Source: CARB 2019
ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (California Air Pollution Control Officers Association [CAPCOA] 2017). CalEEMod is a computer model used to estimate criteria air pollutant emissions resulting from construction and operation of land development projects throughout the state of California. CalEEMod was developed by the SCAQMD with the input of several air quality management and pollution control districts. The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. CalEEMod output files are included in Appendix A.

4.2 ASSUMPTIONS

4.2.1 Construction Emissions

As described above, construction emissions are assessed using the CalEEMod, Version 2016.3.2. CalEEMod contains OFFROAD and EMFAC2014 emission factors from CARB's models for off-road equipment and on-road vehicles, respectively. The construction analysis included modeling of the projected construction equipment that would be used during each construction activity and quantities of earth and debris to be moved. The model calculates emissions of CO, PM_{10}, $PM_{2.5}$, SO_2, and the ozone precursors VOC and NO_X.

Construction input data for CalEEMod include but are not limited to (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the project area. The analysis assessed maximum daily emissions from individual construction activities, including demolition, site preparation, grading, soil hauling, underground utilities/infrastructure installation, building construction, paving, and architectural coating. Off-road heavy equipment would be required during each of these construction phases, except for the soil hauling phase, which would involve on-road haul trucks. Construction equipment estimates are based on model defaults. Table 4, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in various phases of construction.

Table 4
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Phase	Equipment	Number
Demolition	Concrete/Industrial Saw	1
	Excavator	3
	Rubber Tired Dozer	2
Site Preparation	Rubber Tired Dozer	3
	Tractor/Loader/Backhoe	4
Grading	Excavator	1
	Grader	1
	Rubber Tired Dozer	1
	Tractor/Loader/Backhoe	3
Underground Utilities/Infrastructure	Excavator	1
	Tractor/Loader/Backhoe	2
Building Construction	Crane	1
	Forklift	3
	Generator Set	1
	Tractor/Loader/Backhoe	3
	Welder	1
Paving	Cement and Mortar Mixers	1
	Pavers	1
	Paving Equipment	1
	Roller	2
	Tractor/Loader/Backhoe	1
Architectural Coating	Air Compressor	1

Source: CalEEMod (output data, including equipment horsepower, is provided in Appendix A)

The construction schedule was determined by input from the Project Applicant. As shown in Table 5, *Anticipated Construction Schedule*, for modeling purposes construction is assumed to start in February 2021 and is projected to end August 2023. In actuality, construction would start at a later date than assumed herein, and the analysis presented is therefore conservative for reasons described below.

Table 5
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period		
	Start	End	Number of Working Days
Demolition	2/1/2021	2/26/2021	20
Site Preparation	2/1/2021	2/26/2021	20
Grading	4/1/2021	7/30/2021	87
Soil Hauling	7/27/2021	7/30/2021	4
Underground Utilities/Infrastructure	8/2/2021	11/30/2021	87
Building Construction	12/1/2021	7/31/2023	434
Paving	8/1/2023	8/24/2023	18
Architectural Coating	8/1/2023	8/24/2023	18

Source: Input from Project Applicant

Grading of the site would require approximately 4,590 CY of import. It was indicated by the Project Applicant that this import would occur via 328 haul trucks loads over four working days. Demolition would be required for existing on-site structures and pavements.

The quantity, duration, and the intensity of construction activity affect the amount of construction emissions and their related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than incorporated in the CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval). A complete listing of the assumptions used in the analysis and model output is provided in Appendix A of this report.

CalEEMod has the capability to calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. Construction emission calculations presented herein assume the implementation of standard dust control measures listed in Section 1.3, including watering two times daily during grading, ensuring that all exposed surfaces maintain a minimum soil moisture of 12 percent, and limiting vehicle speeds on unpaved roads to 15 mph.

The project would also exceed the requirements of SDAPCD Rule 67 (as described in Section 1.4). All interior and exterior coatings will have a VOC content less than or equal to 50 g/L. The quantities of coatings that would be applied to the interior and exterior of the new buildings were estimated according to CalEEMod default assumptions.

4.2.2 Operational Emissions

Operational impacts associated with the project's development of 62 condominium units were estimated using CalEEMod. Operational sources of emissions include area, energy, and transportation. Operational emissions from area sources include engine emissions from landscape maintenance equipment and VOC emissions from repainting of buildings and consumer products. Energy source emissions include the combustion of natural gas for heating and hot water.

Operational emissions from mobile source emissions are associated with project-related vehicle trip generation. According to the Transportation Impact Analysis prepared for the project by Linscott, Law and Greenspan, Engineers (LLG; 2021), the project would generate 496 average daily trips (ADT). CalEEMod default vehicle speeds, trip purpose, and trip distances were applied to the trips. Model output data sheets are included in Appendix A.

The project would be subject to the 2019 Title 24 Building Energy Efficiency Standards, which require new residential developments three stories or less to include a solar photovoltaic system that provides annual electrical output equal to or greater than the project's annual electrical usage. It was therefore assumed that 100 percent of the project's electrical usage would be provided by a solar photovoltaic system.

4.2.2.1 Localized Operational Emissions

Vehicular trips associated with the proposed project could contribute to the congestion at intersections and along roadway segments in the project vicinity. Localized air quality effects would occur when emissions from vehicular traffic increase in local areas as a result of the proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels. Localized increases in CO concentrations from vehicle congestion at intersections affected by development were screened for in accordance with the protocol recommended by the California Department of Transportation (California Department of Transportation [Caltrans]) and published in their *Transportation Project-Level Carbon Monoxide Protocol* (Caltrans 1998).

4.3 SIGNIFICANCE CRITERIA

The following guidelines for determining significance are based on Appendix G of the CEQA Guidelines, which provide guidance that a project would have a significant air quality environmental impact if it would:

1. Conflict with or obstruct implementation of the Attainment Plan or applicable portions of the SIP;

2. Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

3. Expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations;

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

To determine whether a project would result in a cumulatively considerable net increase of any criteria pollutant, contribute substantially to a project air quality violation, or have an adverse effect on human health, project emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD, which have been adopted in the City's Municipal Code Chapter 33, Article 47, Environmental Quality Regulations. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of SDAPCD adopted thresholds for VOCs and $PM_{2.5}$, the SCAQMD's screening thresholds are used.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. The screening thresholds are included in Table 6, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 6
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions		
Construction Emissions (Pounds per Day)			
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)	55		
Oxides of Nitrogen (NO_X)	250		
Oxides of Sulfur (SO_X)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	75		
Operational Emissions			
	Pounds per Hour	**Pounds per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	55	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	55	13.7
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: City Municipal Code Chapter 33, Article 47, Section 33-924, SDACPD Rule 20.2 and Rule 1210.
T-BACT = Toxics-Best Available Control Technology

Any unreasonable odor discernible at the property line of the site will be considered a significant odor impact.

5.0 IMPACT ANALYSIS

This section evaluates potential direct impacts of the proposed project related to air pollutant emissions.

5.1 CONSISTENCY WITH AIR QUALITY PLANS

The SDAPCD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the Attainment Plan (and previously the Regional Air Quality Strategy [RAQS]) prepared by the SDAPCD for the region, which would be a revision to the SIP. Both the Attainment Plan and SIP are based on SANDAG population projections, as well as land use designations and population projections included in general plans for those communities located within the County. Population growth is typically associated with the construction of residential units or large employment centers.

A project would be consistent with the Attainment Plan if it does not result in population and/or employment growth that exceed growth estimates for the area. In the event that a project proposes development which is less dense than anticipated within the General Plan, the project would likewise be consistent with the Attainment Plan. If a project proposes development that is greater than that anticipated in the City General Plan and SANDAG's growth projections upon which the Attainment Plan is based, the project could be in conflict with the Attainment and SIP and may have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the project and the surrounding projects exceed the growth projections used in the Attainment Plan for the specific subregional area.

The City General Plan Final Environmental Impact Report (FEIR; City 2012) assessed whether development consistent with the General Plan would conflict with or obstruct implementation of the 2009 RAQS and SIP. The FEIR concluded that the overall increase in housing units and corresponding population increase associated with the General Plan would be consistent with the SANDAG growth projections identified for the City in the 2009 RAQS and concluded that development consistent with the General Plan would be consistent with the RAQS and SIP. It can therefore be concluded that development consistent with the General Plan would be consistent with the Attainment Plan as well.

The project proposes the development of 62 multi-family dwelling units on a 2.3-acre portion of the 3.47-acre project site, resulting in a density of 26.96 dwelling units per acre. The Southern Entry Mixed Use Overlay of the South Centre City Specific Plan allows for multi-family residential densities of up to 30 dwelling units per acre (City 2018). As such, the project would involve development that would be less dense than what is proposed in the General Plan, and the project would therefore be consistent with the Attainment Plan and applicable portions of the SIP. As such, the project would not conflict with implementation of an applicable air quality plan and no impact would occur.

5.2 CRITERIA POLLUTANT EMISSIONS

The project region is a federal and/or state nonattainment area for PM_{10}, $PM_{2.5}$, and ozone. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, the potential for a project's individual emissions to contribute to existing cumulatively significant adverse air quality impacts is evaluated.

The project would generate criteria pollutants in the short term during construction and the long term during operation. To determine whether a project would result in a cumulatively considerable net increase of PM_{10} or $PM_{2.5}$ or exceed quantitative thresholds for ozone precursors, or result in emissions of other criteria pollutants that would violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in adverse health effects, the project's emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 6).

5.2.1 Construction

The project's construction emissions were estimated using the CalEEMod model as described in Section 4.1.1. Project-specific input was based on general information provided in Section 1.0 and default model settings to estimate reasonably conservative conditions. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

The results of the calculations for project construction are shown in Table 7, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SDAPCD thresholds.

Table 7
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Phase	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	3	32	22	<0.5	2	2
Site Preparation	4	41	22	<0.5	10	6
Grading	2	25	16	<0.5	4	3
Soil Hauling	1	42	11	<0.5	3	1
Underground Utilities/Infrastructure	1	6	8	<0.5	<0.5	<0.5
Building Construction	2	19	19	<0.5	2	1
Paving	1	9	13	<0.5	1	1
Architectural Coating	35	1	2	<0.5	<0.5	<0.5
Maximum Daily Emissions[a]	**36**	**73**	**44**	**<0.5**	**12**	**8**
SDAPCD Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)

[a] Maximum daily VOC emissions occur when the paving phase and architectural coating phase overlap. Maximum daily NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions occur when the demolition phase and site preparation phase overlap. Maximum daily SO_X emissions occur when the grading phase and soil hauling phase overlap.

As shown in Table 7, emissions of all criteria pollutants related to project construction would be below the SDAPCD's significance thresholds. Therefore, direct impacts from criteria pollutants generated during construction would be less than significant.

5.2.2 Operation

The project's operational emissions were estimated using the CalEEMod model as described in Section 4.1.2. Operational emission calculations and model outputs are provided in Appendix A. Table 8, *Maximum Daily Operational Emissions*, presents the summary of operational emissions for the project.

Table 8
MAXIMUM DAILY OPERATIONAL EMISSIONS

Category	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	2	<0.5	5	<0.5	<0.5	<0.5
Energy	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Mobile	1	3	9	<0.5	3	1
Total Daily Emissions	**3**	**3**	**14**	<0.5	**3**	**1**
SDAPCD Thresholds	*55*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)

As shown in Table 8, project emissions of all criteria pollutants during operation would be below the daily thresholds. Therefore, operation of the project would not result in a significant impact on air quality.

5.2.3 Summary

The project would contribute particulates (PM_{10} and $PM_{2.5}$) and the ozone precursors VOC and NO_X, as well as other criteria pollutants (CO and SO_X) to the area during project construction and operation. Emissions of all criteria pollutants during both construction and operation would be below City thresholds and would therefore not result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is in nonattainment, violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in adverse health effects. Impacts would be less than significant.

5.3 IMPACTS TO SENSITIVE RECEPTORS

Impacts to sensitive receptors are typically analyzed for operational period CO hotspots and exposure to TACs. An analysis of the project's potential to expose sensitive receptors to these pollutants is provided below.

5.3.1 Carbon Monoxide Hotspots

A CO hot spot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. A quantitative screening is required in two instances: (1) if a project increases the average delay at signalized intersections operating at Level of Service (LOS) E or F; or (2) if a project causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project. According to the Transportation Impact Analysis (LLG 2021), none of the eight evaluated intersections is currently operating at LOS E or F or is modeled to operate at LOS E or F in the opening year without project scenario, and implementation of the project would not cause any of the eight intersections to operate at LOS E or F. Therefore, consistent with the CO Protocol, these findings indicate that further screening is not required, and air quality impacts related to exposure of sensitive receptors to substantial CO concentrations would be less than significant.

5.3.2 Toxic Air Contaminants

5.3.2.1 Construction

Construction activities would result in short-term project-generated emissions of diesel particulate matter (PM) from the exhaust of off-road, heavy-duty diesel equipment. CARB identified diesel PM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments (HRAs), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment used during construction, and the construction period would be relatively short, especially when compared to 30 years. Combined with the highly dispersive properties of diesel PM and additional reductions in exhaust emissions from improved equipment (as detailed under Section 1.3), construction-related emissions would not expose sensitive receptors to substantial emissions of TACs. Impacts from construction emissions would be less than significant.

5.3.2.2 Operation

With regard to long-term operations, HRAs are typically conducted for substantial sources of diesel particulate emissions (e.g., truck stops, bus stations, and warehouse distribution facilities); these types of sources would not be part of the project. Other sources of acutely and chronically hazardous toxic air contaminants include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. The proposed project, as a multi-family residential development, would not include a land use that would be a substantial source of TACs. In addition, the project would not be sited in a location considered by CARB to be at high risk of exposure to roadway-related TACs such as diesel particulates. CARB recommends citing residential developments at least 500 feet from freeways and high-traffic roads. The project site is over 3,100 feet from I-15. According to CARB, urban roads are considered high traffic roads if they carry over 100,000 ADT. In the long-term scenario, the segment of Centre City Parkway adjacent to the project site is estimated to carry 35,400 ADT (LLG 2021) and is therefore not considered a high-traffic roadway. As such, the proposed project would not have the potential to expose sensitive receptors to TACs from mobile sources to an extent that health risks could occur.

5.4 OTHER EMISSIONS – ODORS

As discussed above, the State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the project site will be considered a significant odor impact.

The project would produce odors during construction activities from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings. The odors would be emitted at variable and sporadic locations across the project site, would dissipate rapidly from the source, and would not affect a given receptor for the entire duration of construction activities. In addition, construction-related odor emissions would be temporary. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

During project operation, the temporary storage of refuse could be a potential source of odor; however, project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's Municipal Code solid waste regulations, thereby precluding significant odor impacts. As a residential development, the project would not include other substantial sources of odors. Furthermore, the proposed project would be required to comply with the aforementioned SDAPCD Rule 51 which prohibits the discharge of odorous emissions that would create a public nuisance. As such, long-term operation of the proposed project would not create objectionable odors affecting a substantial number of people, and impacts would be less than significant.

6.0 LIST OF PREPARERS

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Appendix A

CalEEMod Output

Escondido Centre City Parkway Condominium Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	39.73	1000sqft	0.91	39,730.00	0
City Park	0.71	Acre	0.71	30,709.80	0
Apartments Mid Rise	62.00	Dwelling Unit	1.86	99,506.00	177

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Escondido Centre City Parkway Condominium Project - San Diego County, Winter

Project Characteristics -

Land Use - The apartment use has a floor area of 99,506 gross square feet. The other asphalt surfaces land use subtype incldues the project's alleys.

Construction Phase - Project schedule provided by Project Applicant.

Off-road Equipment - For modeling and emissions estimate purposes, the soil hauling phase only includes on-site haul trucks.

Off-road Equipment -

Trips and VMT - As indicated by the Project Applicant, soil hauling would take place over four days and would involve 328 truck loads (4,590 cubic yards imported using 14-cubic yard trucks), resulting in 656 trips.

Demolition - Demolition amount provided by Project Applicant. Includes 8,628 sqaure feet of structures and 3,765 square feet of pavement.

Grading - The project involves 31,400 cubic yards of cut and 35,990 cubic yards of fill for a net import of 4,590 cubic yards. Model-calculated default input for total acres graded.

Architectural Coating - Low VOC coating assumed.

Vehicle Trips - Project trip generation provided by LLG.

Woodstoves - No woodstoves or fireplaces.

Area Coating - Low VOC coatings assumed.

Construction Off-road Equipment Mitigation -

Energy Mitigation - Solar provided per 2019 Title 24.

Water Mitigation - Water use reduction per CALGreen.

Waste Mitigation - Solid waste reduction per AB 341.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstructionPhase	NumDays	230.00	434.00
tblConstructionPhase	NumDays	8.00	87.00
tblConstructionPhase	NumDays	8.00	4.00
tblConstructionPhase	NumDays	5.00	20.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	34.10	0.00
tblFireplaces	NumberNoFireplace	6.20	62.00
tblFireplaces	NumberWood	21.70	0.00
tblGrading	MaterialImported	0.00	4,590.00
tblLandUse	LandUseSquareFeet	30,927.60	30,709.80
tblLandUse	LandUseSquareFeet	62,000.00	99,506.00
tblLandUse	LotAcreage	1.63	1.86
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	574.00	656.00
tblVehicleTrips	ST_TR	6.39	8.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	5.86	8.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	6.65	8.00
tblVehicleTrips	WD_TR	1.89	0.00
tblWoodstoves	NumberCatalytic	3.10	0.00
tblWoodstoves	NumberNoncatalytic	3.10	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.2041	72.7449	43.7287	0.1551	19.0039	3.5999	22.6038	10.1095	3.3259	13.4354	0.0000	16,616.1459	16,616.1459	2.2758	0.0000	16,671.0839
2022	2.0347	17.5121	18.5678	0.0371	0.7297	0.8166	1.5463	0.1963	0.7682	0.9646	0.0000	3,605.3472	3,605.3472	0.6654	0.0000	3,621.9811
2023	36.2636	15.8978	18.2757	0.0368	0.7297	0.7055	1.4352	0.1963	0.6638	0.8601	0.0000	3,572.7479	3,572.7479	0.6565	0.0000	3,589.1608
Maximum	**36.2636**	**72.7449**	**43.7287**	**0.1551**	**19.0039**	**3.5999**	**22.6038**	**10.1095**	**3.3259**	**13.4354**	**0.0000**	**16,616.1459**	**16,616.1459**	**2.2758**	**0.0000**	**16,671.0839**

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					
2021	7.2041	72.7449	43.7287	0.1551	8.7277	3.5999	12.3276	4.5962	3.3259	7.9221	0.0000	16,616.1459	16,616.1459	2.2758	0.0000	16,671.0839
2022	2.0347	17.5121	18.5678	0.0371	0.7297	0.8166	1.5463	0.1963	0.7682	0.9646	0.0000	3,605.3472	3,605.3472	0.6654	0.0000	3,621.9811
2023	36.2636	15.8978	18.2757	0.0368	0.7297	0.7055	1.4352	0.1963	0.6638	0.8601	0.0000	3,572.7479	3,572.7479	0.6565	0.0000	3,589.1608
Maximum	**36.2636**	**72.7449**	**43.7287**	**0.1551**	**8.7277**	**3.5999**	**12.3276**	**4.5962**	**3.3259**	**7.9221**	**0.0000**	**16,616.1459**	**16,616.1459**	**2.2758**	**0.0000**	**16,671.0839**

Escondido Centre City Parkway Condominium Project - San Diego County, Winter

	ROG	NOx	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	50.22	0.00	40.16	52.50	0.00	36.13	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4717	0.0590	5.1204	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2191	9.2191	8.8800e-003	0.0000	9.4411
Energy	0.0136	0.1163	0.0495	7.4000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003		148.4551	148.4551	2.8500e-003	2.7200e-003	149.3373
Mobile	0.7357	2.8782	8.8571	0.0316	3.0028	0.0248	3.0275	0.8025	0.0231	0.8255		3,217.4812	3,217.4812	0.1643		3,221.5891
Total	**3.2210**	**3.0535**	**14.0270**	**0.0326**	**3.0028**	**0.0625**	**3.0652**	**0.8025**	**0.0608**	**0.8633**	**0.0000**	**3,375.1554**	**3,375.1554**	**0.1760**	**2.7200e-003**	**3,380.3674**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4717	0.0590	5.1204	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2191	9.2191	8.8800e-003	0.0000	9.4411
Energy	0.0136	0.1163	0.0495	7.4000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003		148.4551	148.4551	2.8500e-003	2.7200e-003	149.3373
Mobile	0.7357	2.8782	8.8571	0.0316	3.0028	0.0248	3.0275	0.8025	0.0231	0.8255		3,217.4812	3,217.4812	0.1643		3,221.5891
Total	**3.2210**	**3.0535**	**14.0270**	**0.0326**	**3.0028**	**0.0625**	**3.0652**	**0.8025**	**0.0608**	**0.8633**	**0.0000**	**3,375.1554**	**3,375.1554**	**0.1760**	**2.7200e-003**	**3,380.3674**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2021	2/26/2021	5	20	
2	Site Preparation	Site Preparation	2/1/2021	2/26/2021	5	20	
3	Grading	Grading	4/1/2021	7/30/2021	5	87	
4	Soil Hauling	Grading	7/27/2021	7/30/2021	5	4	
5	Underground Utilities/Infrastructure	Trenching	8/2/2021	11/30/2021	5	87	
6	Building Construction	Building Construction	12/1/2021	7/31/2023	5	434	
7	Paving	Paving	8/1/2023	8/24/2023	5	18	
8	Architectural Coating	Architectural Coating	8/1/2023	8/24/2023	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43.5

Acres of Paving: 0.91

Residential Indoor: 201,500; Residential Outdoor: 67,167; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,384 (Architectural Coating – sqft)

OffRoad Equipment

Escondido Centre City Parkway Condominium Project - San Diego County, Winter

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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Soil Hauling	Excavators	0	8.00	158	0.38
Soil Hauling	Graders	0	8.00	187	0.41
Soil Hauling	Rubber Tired Dozers	0	8.00	247	0.40
Soil Hauling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Underground Utilities/Infrastructure	Excavators	1	8.00	158	0.38
Underground Utilities/Infrastructure	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	56.00	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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	74.00	18.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Soil Hauling	0	0.00	0.00	656.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities/Infrastructure	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6176	0.0000	0.6176	0.0935	0.0000	0.0935			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.6176**	**1.5513**	**2.1689**	**0.0935**	**1.4411**	**1.5346**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0214	0.7239	0.1866	2.1200e-003	0.0489	2.2400e-003	0.0512	0.0134	2.1400e-003	0.0156		232.6994	232.6994	0.0216		233.2395
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	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0802**	**0.7618**	**0.5606**	**3.2700e-003**	**0.1722**	**3.0900e-003**	**0.1752**	**0.0461**	**2.9200e-003**	**0.0490**		**347.3815**	**347.3815**	**0.0249**		**348.0040**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2779	0.0000	0.2779	0.0421	0.0000	0.0421			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.2779**	**1.5513**	**1.8292**	**0.0421**	**1.4411**	**1.4832**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0214	0.7239	0.1866	2.1200e-003	0.0489	2.2400e-003	0.0512	0.0134	2.1400e-003	0.0156		232.6994	232.6994	0.0216		233.2395
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	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0802**	**0.7618**	**0.5606**	**3.2700e-003**	**0.1722**	**3.0900e-003**	**0.1752**	**0.0461**	**2.9200e-003**	**0.0490**		**347.3815**	**347.3815**	**0.0249**		**348.0040**

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		3,685.6569	3,685.6569	1.1920		3,715.4573
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**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	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**

3.3 Site Preparation - 2021

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
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
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	0.0706	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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0588**	**0.0378**	**0.3740**	**1.1500e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**114.6821**	**114.6821**	**3.2900e-003**		**114.7645**

3.4 Grading - 2021

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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**2.9486**	**1.1599**	**4.1085**	**1.5154**	**1.0671**	**2.5825**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0588**	**0.0378**	**0.3740**	**1.1500e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**114.6821**	**114.6821**	**3.2900e-003**		**114.7645**

3.5 Soil Hauling - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1613	0.0000	0.1613	0.0244	0.0000	0.0244			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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1613**	**0.0000**	**0.1613**	**0.0244**	**0.0000**	**0.0244**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2510	42.4012	10.9319	0.1243	2.8657	0.1310	2.9967	0.7854	0.1253	0.9107		13,629.5353	13,629.5353	1.2654		13,661.1699
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.2510**	**42.4012**	**10.9319**	**0.1243**	**2.8657**	**0.1310**	**2.9967**	**0.7854**	**0.1253**	**0.9107**		**13,629.5353**	**13,629.5353**	**1.2654**		**13,661.1699**

3.5 Soil Hauling - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0726	0.0000	0.0726	0.0110	0.0000	0.0110			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0726**	**0.0000**	**0.0726**	**0.0110**	**0.0000**	**0.0110**	**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	1.2510	42.4012	10.9319	0.1243	2.8657	0.1310	2.9967	0.7854	0.1253	0.9107		13,629.5353	13,629.5353	1.2654		13,661.1699
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.2510**	**42.4012**	**10.9319**	**0.1243**	**2.8657**	**0.1310**	**2.9967**	**0.7854**	**0.1253**	**0.9107**		**13,629.5353**	**13,629.5353**	**1.2654**		**13,661.1699**

3.6 Underground Utilities/Infrastructure - 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	0.6037	5.9450	7.7923	0.0114		0.3280	0.3280		0.3018	0.3018		1,101.9921	1,101.9921	0.3564		1,110.9023
Total	**0.6037**	**5.9450**	**7.7923**	**0.0114**		**0.3280**	**0.3280**		**0.3018**	**0.3018**		**1,101.9921**	**1,101.9921**	**0.3564**		**1,110.9023**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.0314**	**0.0202**	**0.1995**	**6.1000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**61.1638**	**61.1638**	**1.7600e-003**		**61.2077**

3.6 Underground Utilities/Infrastructure - 2021

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	0.6037	5.9450	7.7923	0.0114		0.3280	0.3280		0.3018	0.3018	0.0000	1,101.9921	1,101.9921	0.3564		1,110.9023
Total	**0.6037**	**5.9450**	**7.7923**	**0.0114**		**0.3280**	**0.3280**		**0.3018**	**0.3018**	**0.0000**	**1,101.9921**	**1,101.9921**	**0.3564**		**1,110.9023**

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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.0314**	**0.0202**	**0.1995**	**6.1000e-004**	**0.0657**	**4.5000e-004**	**0.0662**	**0.0174**	**4.2000e-004**	**0.0179**		**61.1638**	**61.1638**	**1.7600e-003**		**61.2077**

3.7 Building 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0574	1.8281	0.5201	4.7500e-003	0.1219	4.0100e-003	0.1259	0.0351	3.8300e-003	0.0389		510.8747	510.8747	0.0398		511.8697
Worker	0.2903	0.1867	1.8450	5.6800e-003	0.6079	4.2000e-003	0.6121	0.1612	3.8700e-003	0.1651		565.7652	565.7652	0.0163		566.1716
Total	**0.3476**	**2.0147**	**2.3651**	**0.0104**	**0.7297**	**8.2100e-003**	**0.7380**	**0.1963**	**7.7000e-003**	**0.2040**		**1,076.6399**	**1,076.6399**	**0.0561**		**1,078.0413**

3.7 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0574	1.8281	0.5201	4.7500e-003	0.1219	4.0100e-003	0.1259	0.0351	3.8300e-003	0.0389		510.8747	510.8747	0.0398		511.8697
Worker	0.2903	0.1867	1.8450	5.6800e-003	0.6079	4.2000e-003	0.6121	0.1612	3.8700e-003	0.1651		565.7652	565.7652	0.0163		566.1716
Total	**0.3476**	**2.0147**	**2.3651**	**0.0104**	**0.7297**	**8.2100e-003**	**0.7380**	**0.1963**	**7.7000e-003**	**0.2040**		**1,076.6399**	**1,076.6399**	**0.0561**		**1,078.0413**

3.7 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		2,554.3336	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**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0534	1.7263	0.4925	4.7000e-003	0.1219	3.4500e-003	0.1253	0.0351	3.3000e-003	0.0384		505.9847	505.9847	0.0385		506.9479
Worker	0.2751	0.1702	1.7120	5.4700e-003	0.6079	4.1100e-003	0.6120	0.1612	3.7800e-003	0.1650		545.0289	545.0289	0.0149		545.4010
Total	**0.3284**	**1.8965**	**2.2044**	**0.0102**	**0.7297**	**7.5600e-003**	**0.7373**	**0.1963**	**7.0800e-003**	**0.2034**		**1,051.0136**	**1,051.0136**	**0.0534**		**1,052.3489**

3.7 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	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**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0534	1.7263	0.4925	4.7000e-003	0.1219	3.4500e-003	0.1253	0.0351	3.3000e-003	0.0384		505.9847	505.9847	0.0385		506.9479
Worker	0.2751	0.1702	1.7120	5.4700e-003	0.6079	4.1100e-003	0.6120	0.1612	3.7800e-003	0.1650		545.0289	545.0289	0.0149		545.4010
Total	**0.3284**	**1.8965**	**2.2044**	**0.0102**	**0.7297**	**7.5600e-003**	**0.7373**	**0.1963**	**7.0800e-003**	**0.2034**		**1,051.0136**	**1,051.0136**	**0.0534**		**1,052.3489**

3.7 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
Vendor	0.0412	1.3576	0.4448	4.5700e-003	0.1219	1.7000e-003	0.1236	0.0351	1.6200e-003	0.0367		493.3248	493.3248	0.0351		494.2015
Worker	0.2612	0.1554	1.5868	5.2600e-003	0.6079	4.0300e-003	0.6119	0.1612	3.7100e-003	0.1650		524.2132	524.2132	0.0136		524.5532
Total	**0.3024**	**1.5129**	**2.0317**	**9.8300e-003**	**0.7297**	**5.7300e-003**	**0.7355**	**0.1963**	**5.3300e-003**	**0.2017**		**1,017.5380**	**1,017.5380**	**0.0487**		**1,018.7548**

3.7 Building Construction - 2023

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
Vendor	0.0412	1.3576	0.4448	4.5700e-003	0.1219	1.7000e-003	0.1236	0.0351	1.6200e-003	0.0367		493.3248	493.3248	0.0351		494.2015
Worker	0.2612	0.1554	1.5868	5.2600e-003	0.6079	4.0300e-003	0.6119	0.1612	3.7100e-003	0.1650		524.2132	524.2132	0.0136		524.5532
Total	**0.3024**	**1.5129**	**2.0317**	**9.8300e-003**	**0.7297**	**5.7300e-003**	**0.7355**	**0.1963**	**5.3300e-003**	**0.2017**		**1,017.5380**	**1,017.5380**	**0.0487**		**1,018.7548**

3.8 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.1325					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0505**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0420	0.4289	1.4200e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		141.6792	141.6792	3.6800e-003		141.7711
Total	**0.0706**	**0.0420**	**0.4289**	**1.4200e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**141.6792**	**141.6792**	**3.6800e-003**		**141.7711**

3.8 Paving - 2023

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	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.1325					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0505**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

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	0.0706	0.0420	0.4289	1.4200e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		141.6792	141.6792	3.6800e-003		141.7711
Total	**0.0706**	**0.0420**	**0.4289**	**1.4200e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**141.6792**	**141.6792**	**3.6800e-003**		**141.7711**

3.9 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	34.8978					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**35.0895**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

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

3.9 Architectural Coating - 2023

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	34.8978					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**35.0895**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7357	2.8782	8.8571	0.0316	3.0028	0.0248	3.0275	0.8025	0.0231	0.8255		3,217.4812	3,217.4812	0.1643		3,221.5891
Unmitigated	0.7357	2.8782	8.8571	0.0316	3.0028	0.0248	3.0275	0.8025	0.0231	0.8255		3,217.4812	3,217.4812	0.1643		3,221.5891

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	496.00	496.00	496.00	1,416,230	1,416,230
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	496.00	496.00	496.00	1,416,230	1,416,230

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	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
Apartments Mid Rise	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056
City Park	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056
Other Asphalt Surfaces	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	0.0136	0.1163	0.0495	7.4000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003		148.4551	148.4551	2.8500e-003	2.7200e-003	149.3373
NaturalGas Unmitigated	0.0136	0.1163	0.0495	7.4000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003		148.4551	148.4551	2.8500e-003	2.7200e-003	149.3373

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	1261.87	0.0136	0.1163	0.0495	7.4000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003		148.4551	148.4551	2.8500e-003	2.7200e-003	149.3373
City Park	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0136**	**0.1163**	**0.0495**	**7.4000e-004**		**9.4000e-003**	**9.4000e-003**		**9.4000e-003**	**9.4000e-003**		**148.4551**	**148.4551**	**2.8500e-003**	**2.7200e-003**	**149.3373**

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	1.26187	0.0136	0.1163	0.0495	7.4000e-004		9.4000e-003	9.4000e-003		9.4000e-003	9.4000e-003		148.4551	148.4551	2.8500e-003	2.7200e-003	149.3373
City Park	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0136**	**0.1163**	**0.0495**	**7.4000e-004**		**9.4000e-003**	**9.4000e-003**		**9.4000e-003**	**9.4000e-003**		**148.4551**	**148.4551**	**2.8500e-003**	**2.7200e-003**	**149.3373**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4717	0.0590	5.1204	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2191	9.2191	8.8800e-003	0.0000	9.4411
Unmitigated	2.4717	0.0590	5.1204	2.7000e-004		0.0283	0.0283		0.0283	0.0283	0.0000	9.2191	9.2191	8.8800e-003	0.0000	9.4411

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1721					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1545	0.0590	5.1204	2.7000e-004		0.0283	0.0283		0.0283	0.0283		9.2191	9.2191	8.8800e-003		9.4411
Total	**2.4717**	**0.0590**	**5.1204**	**2.7000e-004**		**0.0283**	**0.0283**		**0.0283**	**0.0283**	**0.0000**	**9.2191**	**9.2191**	**8.8800e-003**	**0.0000**	**9.4411**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1721					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1451					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1545	0.0590	5.1204	2.7000e-004		0.0283	0.0283		0.0283	0.0283		9.2191	9.2191	8.8800e-003		9.4411
Total	**2.4717**	**0.0590**	**5.1204**	**2.7000e-004**		**0.0283**	**0.0283**		**0.0283**	**0.0283**	**0.0000**	**9.2191**	**9.2191**	**8.8800e-003**	**0.0000**	**9.4411**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation