



**Air Quality Study for Cottonwood  
Apartments**

**Moreno Valley, CA**

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## 1.0 INTRODUCTION

This report presents an assessment of potential air quality and greenhouse gas (GHG) impacts associated with the proposed Cottonwood Village in Moreno Valley, CA (project). The subject property consists of one parcel totaling approximately 9.39 acres gross land area. The construction is anticipated to take 14 months in total. The following primary improvements are planned and analyzed herein:

CONSTRUCTION SUMMARY	UNIT COUNT	PARKING SPACES	APPROXIMATE DURATION
Apartment	184	-	14 months
Parking Lot	-	337(35 EV)	

GHG impacts will be attributable to emissions associated with construction and operational emissions including traffic and energy use. This report presents an evaluation of existing conditions at the subject property, thresholds of significance, and potential air quality and GHG impacts associated with construction and operation of the proposed project.

## 2.0 EXISTING CONDITIONS

### 2.1 Current Development

The subject property is currently vacant undeveloped land. The property is surrounded by low-density single-family housing to north, east, and west. There is a gas station and shopping center to the west separated from the project site by single-family homes. Additionally, there is a church with pre-school and gas station located to the south of the Project site.

### 2.2 Local Climate

Moreno Valley is within western Riverside County, which is characterized by a Mediterranean climate. This consists of mild winters with rainfall and warm, dry summers, with occasional extreme winds. Wind plays an important role in the local air quality, determining the transportation of air pollution.

The temperature and precipitation levels for the Riverside Area were collected from the National Weather Service National Oceanic and Atmospheric Administration (NOAA). Table 1 shows that average temperature and precipitation for each month in the year 2024. This data shows that July was the warmest month, and that February was the coolest month. With minimal rainfall in the year 2024, February had the highest amount of rainfall.

**Table 1**

**2024 Monthly Local Climate Data**

<b>Month</b>	<b>Average Maximum Temperature (°F)</b>	<b>Average Minimum Temperature (°F)</b>	<b>Average Total Precipitation (Inches)</b>
January	66.4	44.0	0.12
February	63.1	46.6	0.16
March	66.2	46.8	0.08
April	74.2	48.3	0.01
May	76.7	53.8	0.00
June	88.8	60.4	<0.01
July	98.0	66.1	<0.01
August	97.3	65.2	<0.01
September	92.4	62.8	0.00
October	88.0	57.5	<0.01
November	73.2	46.1	0.00
December	71.8	44.6	0.00
<b>Annual</b>	<b>79.7</b>	<b>53.5</b>	<b>0.03</b>

Source: NOWData-NOAA Online Weather Data <https://www.weather.gov/wrh/Climate?wfo=sgxy>

**TABLE 2**  
**Ambient Air Quality Standards**

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS CONCENTRATION	CALIFORNIA STANDARDS METHODS	NATIONAL STANDARDS PRIMARY	NATIONAL STANDARDS SECONDARY	NATIONAL STANDARDS METHOD
Ozone (O3)	1 hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	—	—	Ultraviolet Photometry
	8 hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)	0.070 ppm (137 µg/m3)	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m3)	—	Non-Dispersive Infrared Spectroscopy (NDIR)
	8 Hour	9.0 ppm (10 mg/m3)		9 ppm (10 µg/m3)	—	
Nitrogen Dioxide (NO2)	Annual	0.030 ppm (56 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)	—	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 µg/m3)		0.100 ppm (188 µg/m3)	—	
Sulfur Dioxide (SO2)	24 hours	0.04 ppm (105 µg/m3)	Ultraviolet Fluorescence	0.14 ppm (for certain area)	—	Pararosaniline
	3 hours	--		—	0.5 ppm (1300 µg/m3)	
	1 hour	0.25 ppm (655 µg/m3)		0.075 ppm (196 µg/m3)	—	
Respirable Particulate Matter (PM10)	24 hours	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	150 µg/m3	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		—	—	
Fine Particulate Matter (PM2.5)	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	9.0 µg/m3	15 µg/m3	Inertial Separation and Gravimetric Analysis
	24 hours			35 µg/m3	35 µg/m3	
Sulfates	24 hours	25 µg/m3	Ion Chromatography	No National Standards		
Lead	30-day Average	1.5 µg/m3	Atomic Absorption			Atomic Absorption
	Calendar Quarter			1.5 µg/m3	1.5 µg/m3	
	3-Month Rolling			0.15 µg/m3	0.15 µg/m3	
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence	No National Standards		
Vinyl Chloride	24 hours	0.010 ppm (26 µg/m3)	Gas Chromatography	No National Standards		

ppm= parts per million; µg/m3 = micrograms per cubic meter; mg/m3= milligrams per cubic meter Source: California Air Resources Board, Table of Ambient Air Quality Standards, 2024

**TABLE 3**  
**Health and Environmental Effects of Major Criteria Pollutants**

Pollutants	Primary Effects
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>● Chest pain in patients with heart disease</li> <li>● Headache</li> <li>● Light-headedness</li> <li>● Reduced mental alertness</li> </ul>
Nitrogen Oxides (NO <sub>x</sub> )	<ul style="list-style-type: none"> <li>● Lung irritation</li> <li>● Enhanced allergic responses</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>● Respiratory symptoms</li> <li>● Worsening of lung disease leading to premature death</li> <li>● Damage to lung tissue</li> <li>● Crop, forest and ecosystem damage</li> <li>● Damage to a variety of materials, including rubber, plastics, fabrics, paint and metals</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>● Impaired mental functioning in children</li> <li>● Learning disabilities in children</li> <li>● Brain and kidney damage</li> </ul>
Respirable Particulate Matter (PM-10)	<ul style="list-style-type: none"> <li>● Premature death &amp; hospitalization, primarily for worsening of respiratory disease</li> <li>● Reduced visibility and material soiling</li> </ul>
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> <li>● Premature death</li> <li>● Hospitalization for worsening of cardiovascular disease</li> <li>● Hospitalization for respiratory disease</li> <li>● Asthma-related emergency room visits</li> <li>● Increased symptoms, increased inhaler usage</li> </ul>
Sulfur Oxides (SO <sub>x</sub> )	<ul style="list-style-type: none"> <li>● Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits</li> </ul>
Sulfates	<ul style="list-style-type: none"> <li>● Same as PM2.5, particularly worsening of asthma and other lung diseases</li> <li>● Reduces visibility</li> </ul>
Vinyl Chloride	<ul style="list-style-type: none"> <li>● Central nervous system effects, such as dizziness, drowsiness &amp; headaches</li> <li>● Long-term exposure: liver damage &amp; liver cancer</li> </ul>
Hydrogen Sulfide	<ul style="list-style-type: none"> <li>● Nuisance odor (rotten egg smell)</li> <li>● At high concentrations: headache &amp; breathing difficulties</li> </ul>

Source: California Air Resources Board Common Air Pollutants

### **3.0 REGULATORY FRAMEWORK**

#### **3.1 Federal**

The United States Environmental Protection Agency (EPA) defines air quality by ambient air concentrations of specific pollutants that have been shown to be of concern with respect to health and welfare of the public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on public health and welfare are anticipated.

In response, the EPA established both primary and secondary standards for several pollutants (called “criteria” pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

#### **3.2 State – California**

The Federal CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. More stringent California Ambient Air Quality Standards (CAAQS) have been adopted by the California Air Resources Board (CARB) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA). The CCAA also established California Ambient Air Quality Standards (CAAQS) for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles (see Table 2 for NAAQS and CAAQS.)

The CARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The CARB is responsible for the development, adoption, and enforcement of the state’s motor vehicle emissions program, as well as the adoption of the CAAQS. The CARB also reviews operations and programs of the local air districts and requires each air district with jurisdiction over a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS.

Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be “Nonattainment Areas” for that pollutant. In order to achieve improved air quality throughout nonattainment areas, a State Implementation Plan (SIP) is produced by the CARB. SIPs are complex plans that outline measures to improve air quality and achieve NAAQS. These plans must integrate federal, state, and local components, and is required by the EPA.

#### **CARB’s 2022 Scoping Plan for Achieving Carbon Neutrality**

The CARB’s 2022 Scoping Plan for Achieving Carbon Neutrality (Scoping Plan) was finalized in December 2022 and was designed to implement the GHG emission reduction targets. This document addresses the objective of informing the most viable path to remain on track to achieve our 2030 GHG reduction target with a reduction in anthropogenic emissions by 85% below 1990 levels and carbon neutrality by 2045. This plan, addressing recent legislation and direction from Governor Newsom, expands upon earlier plans, including the 2017 California Climate Change Scoping Plan, with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The plan outlines how carbon neutrality can be

achieved to reduce GHGs to meet the emissions targets. Targets addressed throughout this Scoping Plan include:

- Achieve carbon neutrality by 2045
- California is reducing its GHG emissions by at least 40 percent below 1990 levels by 2030. This target is set in Executive Order S-3-15 and Senate Bill 32 that recommends local governments target 6.0 MTCO<sub>2e</sub> per capita per year by 2030 and 2.0 MTCO<sub>2e</sub> by 2050 (of 80% below 1990 levels).

### **AB-32**

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008 that outlined measures to meet 2020 reduction goals, required to be updated every five years. The most updated version, the 2022 Scoping Plan, aims to reduce anthropogenic greenhouse gas emissions by 85 percent below 1990 levels no later than 2045. These reduction methods shall include carbon sequestration projects that aim to remove carbon from the atmosphere and utilize best management practices.

In August 2016, Governor Brown signed Senate Bill (SB) 32 and AB 197, which extended California's GHG reduction program beyond 2020. This also authorized CARB to achieve a statewide GHG emission reduction of at least 40% below 1990 levels by no later than December 31, 2030.

### **3.3 Regional – Southern California**

The City of Moreno Valley lies within the South Coast Air Basin, which is monitored by the South Coast Air Quality Management District (SCAQMD). This air basin is 6,600 square mile area and is bound by the Pacific Ocean to the west of the basin and the San Gabriel, San Bernardino, and San Jacinto mountains to both the north and east of the basin. The SCAQMD is divided into 38 locations to effectively monitor air quality throughout the four counties within the district. The project site is within Monitoring Area 24. The SCAQMD has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The SCAQMD is the local agency responsible for the administration and enforcement of air quality regulations for the South Coast Air Basin (SCAB).

The SCAB is classified as an Extreme Nonattainment Area for the NAAQS for O<sub>3</sub> for all Averaging Times and a Nonattainment Area for the NAAQS PM<sub>2.5</sub> for all Averaging times. The SCAB is also designated as a Maintenance Area for the NAAQS for CO and NO<sub>2</sub>. The SCAB is considered a Serious Nonattainment Area for the CAAQS pollutant PM<sub>10</sub>. The area is considered unclassified for Attainment for all other NAAQS and CAAQS for the other criteria pollutants.

The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SCAB. The most recently adopted air quality plan in the SCAB is the 2022 Air Quality Management Plan (AQMP). SCAQMD develops rules and regulations that address standards to reduce emission. Regulations deal with a specific subject, with certain rules that address measures identified in

the AQMP. The Final 2022 AQMP was adopted by the SCAQMD Board on December 2, 2022, and was adopted by CARB on January 26, 2023 to be incorporated into the SIP.

### **3.4 Local**

By implementing control measures through land use choices, the City of Moreno Valley has the authority to lower air pollution. On July 11<sup>th</sup>, 2006, the City of Moreno Valley's General Plan 2006 was adopted. The General Plan recognizes the need to reduce energy use and greenhouse gas emissions to become a more sustainable community. The City of Moreno Valley is committed to providing a more livable, equitable, and economically vibrant community through the incorporation of sustainability features, energy efficiency, and reduction of greenhouse gas (GHG) emissions.

The proposed project is located within the City of Moreno Valley, which adheres to the 2006 General Plan and the upcoming 2040 General Plan. According to the City of Moreno Valley's 2006 General Plan, the proposed project includes a Zone Change from Residential 10 (R10) to Residential 20 (R20) and a corresponding General Plan Amendment to change the land use designation from R10 to R20. However, the City of Moreno Valley 2040 General Plan is approved prior to approval, the project would not require the proposed project to conduct a zone change, as the project's underlying zoning is consistent with the 2040 General Plan.

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The Air Quality related goals and policies described in the 2006 General Plan Safety Element are shown below:

- Objective 6.7: Reduce mobile and stationary source air pollutants
- Policies:
  - 6.7.1: Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.
  - 6.7.2: Encourage the financing and construction of park-and-ride facilities.
  - 6.7.3: Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.
  - 6.7.4: Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.
  - 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.
  - 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.

The Air Quality related goals and policies described in the 2040 General Plan Environmental Justice Element are shown below:

- Goal EJ-1: Reduce pollution exposure and improve community health.
- Policies:
  - EJ.1-1: Coordinate air quality planning efforts with other local, regional, and State agencies.
  - EJ.1-2: Cooperate with SCAQMD and WRCOG in efforts to promote public awareness about air pollution and control measures.
  - EJ.1-4: Collaborate with SCAQMD and other regional partners in the development and implementation of Community Emissions Reduction Plans, consistent with State mandates.
  - EJ.1-6: Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.
  - EJ.1-8: Support the incorporation of new technologies and design and construction techniques in new development that minimize pollution and its impacts.

#### **4.0 THRESHOLDS OF SIGNIFICANCE**

The SCAQMD has adopted CEQA significance thresholds as of 2023 (SCAQMD 2023), which provide guidance on the requirements for evaluating potential air quality impacts and on thresholds of significance under CEQA. The SCAQMD has identified numerical emission thresholds of significance for construction and operation for a project. The project-level numerical thresholds are summarized in Table 4.

**TABLE 4**  
**SCAQMD Significance Thresholds**

POLLUTANT	CONSTRUCTION	OPERATION
<b>Criteria Pollutants Mass Daily Thresholds</b>		
NOx	100 lbs./day	55 lbs./day
ROG (VOC)	75 lbs./day	55 lbs./day
PM10	150 lbs./day	150 lbs./day
PM2.5	55 lbs./day	55 lbs./day
SOx	150 lbs./day	150 lbs./day
CO	550 lbs./day	550 lbs./day
Lead	3 lbs./day	3 lbs./day
<b>TAC, AHM, and Odor Thresholds</b>		
Toxic Air Contaminants (TACs)	Maximum Incremental Cancer Risk 10 in 1 million Cancer Burden > 0.5 (in areas 1 in a million)  Chronic and Acute Hazard Index 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr. CO <sub>2</sub> eq for industrial facilities	
<b>Ambient Air Quality for Criteria Pollutants</b>		
<b>NO2</b> 1-hour average  Annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards. 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
<b>PM10</b> 24-hour average Annual geometric mean	10.4 g/m <sup>3</sup> construction & 2.5 g/m <sup>3</sup> operation  1.0 g/m <sup>3</sup>	
<b>PM2.5</b> 24-hour average	10.4 g/m <sup>3</sup> construction & 2.5 g/m <sup>3</sup> operation	
<b>SO2</b> 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 <sup>th</sup> percentile) 0.04 ppm (state)	
<b>Sulfate</b> 24-hour average	25 g/m <sup>3</sup> (state)	
<b>CO</b> 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
<b>Lead</b> 30-day average  Rolling 3-month average Quarterly average	1.5 g/m <sup>3</sup> (state)  0.15 g/m <sup>3</sup> (federal)  1.5 g/m <sup>3</sup> (federal)	

g/m<sup>3</sup> = microgram per cubic meter; ppm = parts per million; MT = Metric Ton

#### 4.1 Localized Significance Thresholds

To further evaluate the potential for significant impacts associated with the project, the SCAQMD’s Final Localized Significance Threshold (LST) Methodology (SCAQMD 2008) can be considered to evaluate whether a project’s emissions could cause a localized exceedance of an ambient air quality standard. The LST Methodology provides a look-up table for construction and operational emissions based on the emission rate, location, and distance from receptors, and provides a methodology for air dispersion modeling to evaluate whether a construction or operation could cause an exceedance of an ambient air quality standard. The SCAQMD provides a Fact Sheet for Applying CalEEMod to LSTs, to assist in the calculation of disturbed acreage on the Project site. Table 5 displays the SCAQMD LSTs for Zone 24 with a receptor distance of 25 meters.

**TABLE 5**

SCAQMD Localized Significance Thresholds for Zone 24				
Activity	NOX	CO	PM10	PM2.5
Construction	270	1,577	13	8
Operation	270	1,577	4	2

(South Coast Air Quality Management District [SCAQMD], 2009)

#### 5.0 IMPACTS

The proposed residential development includes both construction and operational impacts. Construction impacts include emissions associated with site grading/preparation, utilities installation, construction of a building, and paving. Operational impacts include emissions associated with the project, including traffic once operational. It is estimated that the entire construction process will take 18 months. Table 6 below provides a summary of the construction scope.

**TABLE 6**

AREA DISTURBED (SQ. FT.)	CONSTRUCTION SUMMARY	UNIT NUMBER	PARKING SPACES	APPROXIMATE DURATION
171,760	Apartments	184	-	15 months
72,162	Parking Lot		337 (35 EV)	3 months

#### 5.1 Construction

Emissions of pollutants such as fugitive dust that are generated during construction are generally the highest near the construction site. Emissions from the construction phase of the project were estimated using the CalEEMod Model (ENVIRON 2022.1.1.37). It was assumed that heavy construction equipment would be operating at the site for eight hours per day, five days per week during project construction. In addition, it was assumed that, in accordance with the requirements of the SCAQMD Rule 403, fugitive dust controls would be utilized during construction, including watering of active sites three times daily.

Tables 7 and 8 provide summaries of the daily emission estimates for construction and operation of all proposed site improvements. These projected emissions assume standard measures are implemented to reduce emissions, as calculated with the CalEEMod Model, and are compared to the SCAQMD Significance Thresholds. Refer to Appendix A for detailed model output files.

Table 7 includes projected emissions for all steps of construction, averaged over the project’s projected construction duration. These steps include: Site Preparation, Grading, Building Construction, Paving, and Architectural Coatings. The demolition phase of the analysis has been removed, due to the site being vacant. Note that projected emissions for all pollutants during construction are below both the SCAQMD’s Air Quality Significance Thresholds for criteria pollutant thresholds.

Diesel-fired machinery will be used during construction, releasing diesel particulate matter, which is considered to be a toxic air contaminant and classified carcinogen in the state of California. The earthwork phase is the phase of construction in which most of the diesel-fired equipment will be used. According to the Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (August 2003), TACs have 11 health effects relating to individual cancer risk based on a lifetime (i.e., 30-year) of resident exposure. Due to the temporary and short-term construction period of approximately 14 months, the project would not result in long-term exposure (i.e., lifetime or 30-year exposure). The impacts of construction-based particulate matter (PM) emissions do not exceed any local or regional thresholds as shown below in Table 7.

**TABLE 7**  
**Estimated Daily Construction Emissions (Daily, Unmitigated)**  
**LBS/Day (unless otherwise shown)**

EMISSION SOURCE	ROG	NOx	CO	SOx	PM10	PM2.5
<b>SCAQMD Significance Thresholds</b>	75	100	550	150	150	55
<b>2027 Project Construction Emissions</b>	0.32	2.57	3.72	0.006	0.66	0.32
<b>2028 Project Construction Emissions</b>	3.84	5.81	11.26	0.016	1.22	0.41
<b>Total Project Construction Emissions</b>	4.16	8.38	14.98	0.022	1.88	0.73
<b>Significant?</b>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

## 5.2 Operational Impacts

The main operational impacts associated with the Project would be impacts associated with traffic. Other impacts would be associated with energy use and area sources.

To address whether the Project would result in emissions that would violate any air quality standard or contribute substantially to an existing or proposed air quality violation, the emissions associated with Project-generated traffic and area sources were compared with the SCAQMD’s quantitative significance criteria. The CalEEMod Model contains emission factors from the EMFAC2021 model, which is the latest version of the Caltrans emission factor model for on-road traffic. This tool was used to model operational air quality emissions. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the CalEEMod Model default outputs for traffic. This assumption includes light duty autos and light duty trucks (i.e., small trucks, SUVs, and vans) as well as medium- and heavy-duty vehicles that may be traveling to the facility to make deliveries. For conservative purposes, emission factors representing the vehicle mix for 2026 were used to estimate emissions as 2026 was assumed to be the first year of full operation; based on the results of the EMFAC2021 model for subsequent years, emissions

would decrease on an annual basis from 2022 onward due to phase-out of higher polluting vehicles and implementation of more stringent emission standards that are taken into account in the EMFAC2021 model. Emissions associated with area sources (energy use and landscaping activities) were also estimated using the default assumptions in the CalEEMod Model.

Table 8 below presents the results of the CalEEMod emission calculations in lbs./day for operations, as a daily average considering the project’s design features, along with a comparison with the SCAQMD Air Quality Significance Thresholds for Operations. The calculation assumed that the project would be constructed to current Title 24 buildings standards and would use low flow plumbing fixtures.

**TABLE 8**  
**Estimated Daily Operational Emissions (Daily, Unmitigated)**  
**LBS/Day (unless otherwise shown)**

EMISSION SOURCE	ROG	NOx	CO	SOx	PM10	PM2.5
<b>SCAQMD Significance Thresholds</b>	55	55	550	150	150	55
<b>Project Operational Emissions</b>	-	-	-	-	-	-
<b>Mobile</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Area</b>	4.65	0.07	7.17	<0.005	<0.005	<0.005
<b>Energy</b>	0.05	0.79	0.34	0.06	0.06	0.06
<b>Water</b>	-	-	-	-	-	-
<b>Waste</b>	-	-	-	-	-	-
<b>Refrig.</b>	-	-	-	-	-	-
<b>Total Project Operational Emissions</b>	4.69	0.86	7.50	0.005	0.06	0.06
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Based on the estimates of the emissions associated with project operations taken from the Annual output table per CalEEMod, regional thresholds would not be exceeded.

Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO “hot spots.” A Vehicle Miles Traveled (VMT) Scoping Form, prepared in 2024, calculated the Project induced trips generated for the AM Peak Hour and the PM Peak Hour. The Project induced trips generated for the AM Peak Hour are approximately 74 vehicle trips per peak hour. This satisfies the City criteria of 100 vehicle trips in the peak hour. The Project-induced trips generated for the PM Peak Hour are approximately 94 vehicle trips per peak hour. This also satisfies the city criteria of 100 vehicle trips in the peak hour.

The City of Moreno Valley deems that less trips than the 100 trip threshold typically does “not affect LOS significant once distributed to the local roadway network”. In addition, based on the realistic traffic inputs for this specific site and the fact that this did not result in criteria pollutant threshold exceedance, it is unlikely that nearby sensitive receptors would be negatively affected.

### 5.3 Localized Significance Threshold Impacts

The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size. LSTs apply to CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The Project site is located in Source Receptor Area 24, Perris Valley, and will utilize the values associated with this zone. The proposed project is 9.39 acres and the CalEEMod results detailed below size the project footprint at 174,231 sq ft for Residential Apartment-Low Rise.

The total area of disturbed land was calculated using the SCAQMD Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. The Project calculated the total number of acres disturbed based on the off-road equipment that was used during construction, including 3 tractors, 1 grader, and 1 rubber tire dozer. This resulted in a value of 2.5 acres of disturbed land. This number has been rounded up to refer to the 5-acre LST table. The receptor distance of 25 meters has been utilized, as the nearby receptors are within the 25-meter distance. These receptor locations include the single-family residential neighborhoods to the north, east, and west of the project site, as well as the church to the south.

**Table 9**  
**Estimated Daily Construction Emissions (Daily, Unmitigated)**  
**LBS/Day (unless otherwise shown)**

EMISSION SOURCE	NOx	CO	PM10	PM2.5
LST Significance Thresholds	270	1,577	13	8
2027 Project Construction Emissions	2.57	3.72	0.66	0.32
2028 Project Construction Emissions	5.81	11.26	1.22	0.41
Total Project Construction Emissions	8.38	14.98	1.88	0.73
Significant?	No	No	No	No

**Table 10**  
**Estimated Daily Operational Emissions (Daily, Unmitigated)**  
**LBS/Day (unless otherwise shown)**

EMISSION SOURCE	NOx	CO	PM10	PM2.5
LST Significance Thresholds	270	1,577	4	2
Project Operational Emissions	-	-	-	-
Mobile	0.00	0.00	0.00	0.00
Area	0.07	7.17	<0.005	<0.005
Energy	0.79	0.34	0.06	0.06
Water	-	-	-	-
Waste	-	-	-	-
Refrig.	-	-	-	-
Total Project Operational Emissions	0.86	7.50	0.06	0.06
Significant?	No	No	No	No

Based on the estimates of the emissions associated with project construction, displayed in Table 9, taken from the Annual output table per CalEEMod, LSTs would not be exceeded. In addition, estimates of the emissions associated with project operation, displayed in Table 10, taken from the Annual output table per CalEEMod demonstrate that LSTs would not be exceeded. Therefore, the proposed Project would not be expected to create any significant localized air quality impacts during the construction or operation period.

## 5.4 Odors

Land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations. These land uses are not proposed for this project. Residential land uses do not typically generate odor complaints.

Potential odor sources associated with the proposed project may result from construction activities. During construction, diesel equipment operating at the site may generate some nuisance odors. Standard construction requirements will minimize the odor impacts from construction, resulting in minimal, temporary and short-term odor emissions, and thus is considered less than significant.

## 5.5 Project's Contribution to Criteria Pollutants

Pursuant to the Sierra Club v. Friant Ranch Supreme Court Ruling (Case No. S219783, December 24, 2018), which found on page 6 of the ruling that EIRs need to “makes a reasonable effort to substantively connect a project’s air quality impacts to likely health consequences.” Also, on page 24 of the ruling it states “The Court of Appeal identified several ways in which the EIR could have framed the analysis to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project’s impact on the days of nonattainment per year.”

The Air Basin has been designated by EPA for the national standards as a non-attainment area for O<sub>3</sub>, PM<sub>2.5</sub>, and partial non-attainment for lead. In addition, PM<sub>10</sub> has been designated by the State as non-attainment. It should be noted that VOC and NO<sub>x</sub> are O<sub>3</sub> precursors, as such they have been considered as non-attainment pollutants. The project contribution to each criteria pollutant in the South Coast Air Basin is shown below in table 11.

**TABLE 11**  
**Project's Contribution to Criteria Pollutants in the South Coast Air Basin**

EMISSIONS SOURCE	ROG POUNDS/DAY	NOx POUNDS/DAY	CO POUNDS/DAY	SOx POUNDS/DAY	PM10 POUNDS/DAY	PM2.5 POUNDS/DAY
Project Emissions <sup>1</sup>	8.85	9.24	22.48	0.027	1.94	0.79
Total Emissions in Air Basin <sup>2</sup>	834,000	694,000	3,692,000	28,000	334,400	118,000
Project's Percent of Air Emissions	0.0011	0.0013	0.0006	0.0001	0.0006	0.0007
Project's Significance	insignificant	insignificant	insignificant	insignificant	insignificant	insignificant

Notes:

1 From the project's total operational emissions.

2 AQMD Clean Air Plans-Summary of Emissions by Major Source Category: 2018 Base Year

Due to these nominal increases in the Basin-wide criteria pollutant emissions, no increases in days of non-attainment are anticipated to occur from operation of the proposed project. As such, operation of the project is not anticipated to result in a quantitative increase in premature deaths, asthma in children, days children will miss school, asthma-related emergency room visits, or an increase in acute bronchitis among children due to the criteria pollutants created by the proposed project. Impacts would be less than significant.

## 5.6 Project Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between the proposed project and the applicable General Plans and regional plans, per CEQA Guidelines Section 15125. The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards.

The regional plan that applies to the proposed project includes the SCAQMD AQMP. This project does not exceed the SCAQMD Significance Thresholds, as displayed in Table 7, Estimated Annual Construction Emissions (Annual, Unmitigated), and Table 8, Estimated Annual Operational Emissions (Annual, Unmitigated). The Project's contribution to all criteria pollutants within the SCAB is also insignificant, as displayed in Table 11, Project's Contribution to Criteria Pollutants in the South Coast Air Basin. Therefore, this project complies with the SCAQMD AQMP.

The proposed project is located within the City of Moreno Valley, which adheres to the 2006 General Plan and the upcoming 2040 General Plan. According to the City of Moreno Valley's 2006 General Plan, the proposed project includes a Zone Change from Residential 10 (R10) to Residential 20 (R20) and a corresponding General Plan Amendment to change the land use designation from R10 to R20. However, the City of Moreno Valley 2040 General Plan is approved prior to approval, the project would not require the proposed project to conduct a zone change, as the project's underlying zoning is consistent with the 2040 General Plan.

Therefore, the proposed Project would not result in any inconsistency with the proposed land use designations with respect to the General Plan and the SCAQMD AQMP.

## 6.0 GREENHOUSE GAS EMISSIONS IMPACT ASSESSMENT

According to the California Natural Resources Agency, "due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis." According to Appendix G of the CEQA Guidelines, the following criteria may be considered to establish the significance of GHG emissions:

Would the project:

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

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency, consistent with the provisions in Section 15064. Section 15064.4 further provides that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or

methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the model or methodology selected for use; and/or

- Rely on a qualitative analysis or performance-based standards.

Section 15064.4 also advises a lead agency to consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. On September 28, 2010, the SCAQMD has recommended a threshold of 3,000 metric tons of CO<sub>2</sub>e (carbon dioxide equivalent) as a Tier 3 threshold for all residential and commercial land uses under CEQA. For the purpose of this evaluation, a threshold of 3,000 metric tons of CO<sub>2</sub>e is used to assess the significance of greenhouse gas emissions.

**Table 12**  
**Project Related GHG Emissions**

Summary	CO <sub>2</sub> e MT/yr
<b>Construction CO<sub>2</sub>e Emissions<sup>1</sup></b>	
2027 Construction Emissions	128.51
2028 Construction Emissions	433.50
<b>Total Construction Emissions</b>	<b>562.01</b>
<b>Total Construction CO<sub>2</sub>e amortized over 30 years</b>	<b>18.73</b>
<b>Operational CO<sub>2</sub>e Emissions<sup>2</sup></b>	
Mobile Sources	0.00
Area Sources	3.18
Energy Usage	471.29
Water and Wastewater	23.35
Solid Waste	42.45
Refrigeration	0.21
<b>Total Operational CO<sub>2</sub>e Emissions</b>	<b>540.47</b>
<b>Construction and Operational CO<sub>2</sub>e Emissions</b>	
<b>Project Operational Emissions Per Year (plus amortized construction emissions)</b>	<b>559.2 MT/yr.</b>
<b>SCAQMD Threshold</b>	<b>3,000 MT/yr.</b>
<b>Exceed Threshold?</b>	<b>No</b>

Source: CalEEMod 2022.1.1.37

Notes:

1. CO<sub>2</sub>e emissions per year from annual unmitigated construction
2. CO<sub>2</sub>e emissions per year from annual unmitigated operations

The proposed project would generate an estimated total of 562.01 annual mitigated metric tons of CO<sub>2</sub>e emissions during construction. The SCAQMD recommends amortizing construction emissions over a period of 30 years to estimate the contribution of construction emissions to operational emissions over

the project lifetime. Amortized over 30 years, the construction of the project will generate approximately 18.73 metric tons of CO<sub>2</sub>e on an annualized basis.

Based on the results of the CalEEMod Model, the project would generate a total of 540.47 tons of CO<sub>2</sub>e emissions per year from annual mitigated operations. By adding the amortized construction emissions results with the operational annual CO<sub>2</sub>e emissions the project will produce 559.2 metric tons of CO<sub>2</sub>e annually over a 30-year period, or 16,776 metric tons of CO<sub>2</sub>e total. This cumulative level is below the SCAQMD's recommended Tier 3 threshold of 3,000 metric tons of CO<sub>2</sub>e emissions for residential and commercial land uses per year. Therefore, impacts would be less than significant and the project's GHG emissions would be in compliance with SCAQMD threshold and the reduction goals of the City of Moreno Valley General Plan.

## **7.0 CONCLUSIONS**

This air quality and GHG analysis for the proposed residential development in Moreno Valley, California evaluated emissions associated with both the construction and operation of the project. Emissions associated with construction and operation were compared with significance thresholds developed by the SCAQMD, which provide a conservative means of evaluating whether project emissions would cause a significant impact on the ambient air quality or whether further evaluation is warranted. Emissions associated with construction and operation are below the significance thresholds for all criteria pollutants as well as cumulative GHG emissions. Thus, the emissions associated with construction and operation of the project would not result in a significant impact under the California Environmental Quality Act.

## **8.0 IMPACT DETERMINATIONS**

In accordance with CEQA, when a proposed project is consistent with a General Plan for which an EIR has been certified, the effects of that project are evaluated to determine if they will result in project-specific significant adverse impacts on the environment. The criteria used to determine the significance of an air quality or greenhouse gas impact are based on the following thresholds of significance. Accordingly, air quality or greenhouse gas impacts resulting from the Project are considered significant if the Project would:

### Air Quality

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

### Greenhouse Gas Emissions

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the

emissions of greenhouse gases?

## Air Quality

The project site falls under the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and is located in the South Coast Air Basin (SCAB). The Air Quality Management Plan (AQMP) provides a program for obtaining attainment status for key monitored air pollution standards, based on existing and future air pollution emissions resulting from employment and residential growth projections. The Air Quality Management Plan (AQMP) is developed using input from various agencies' General Plans and other projections for population and employment growth. Emissions with regional effects during project construction, calculated with the California Emissions Estimator Model (CalEEMod); Version 2022.1.1.37, would not exceed criteria pollutant thresholds established by the SCAQMD.

The proposed project is expected to have a minimal impact on the air quality of the area and would produce relatively few emissions during construction and negligible emissions during operation. Therefore, impacts are considered less than significant. Table 11 presents the regional air quality significance thresholds and results of the modeled emissions for the project.

### a) Conflict with or obstruct implementation of the applicable air quality plan

#### **Less Than Significant Impact.**

The primary way of determining consistency with the Air Quality Management Plan's (AQMP's) assumptions is determining consistency with the applicable General Plan to ensure that the Project's population density and land use are consistent with the growth assumptions used in the AQMPs for the air basin.

The Project is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD), since the Project is located within the South Coast Air Basin (Basin). As required by California law, a City's General Plan contains a Land Use Element that details the types and quantities of land uses that the City estimates will be needed for future growth, and that designate locations for land uses to regulate growth. Existing and future pollutant emissions computed in the AQMPs are based on land uses from area general plans. AQMPs detail the control measures and emission reductions required for reaching attainment of the air standards. The proposed project is located within the City of Moreno Valley, which adheres to the 2006 General Plan and the upcoming 2040 General Plan. According to the City of Moreno Valley's 2006 General Plan, the proposed project includes a Zone Change from Residential 10 (R10) to Residential 20 (R20) and a corresponding General Plan Amendment to change the land use designation from R10 to R20. However, if the City of Moreno Valley 2040 General Plan is approved prior to Project approval, the Project would not require the proposed Project to conduct a zone change, as the Project's underlying zoning is consistent with the 2040 General Plan. As the project is consistent with the City's General Plan, it is also consistent with the residential development patterns and emissions assumptions of the AQMP and would therefore not conflict with or obstruct implementation of any air quality management plan.

In addition, as shown in Table 11 above, emissions from construction and operations of the proposed project would be below SCAQMD air quality significance thresholds for all pollutants. Based on this, the

proposed project would not be expected to conflict with or obstruct implementation of the AQMP. Given the negligible contribution of project emissions relative to regional totals, the project would not conflict with or obstruct the SCAQMD Air Quality Management Plan or other applicable attainment plans. Therefore, impacts would be less than significant.

*As a result, no mitigation is required and the impacts would be less than significant.*

**b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard**

**Less Than Significant Impact.**

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the SCAB. The emissions thresholds were established based on the attainment status of the SCAB with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health within an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

As shown in Table 11, emissions from construction and operations of the proposed project would be below SCAQMD air quality significance thresholds for all pollutants. Specifically, the proposed project would not exceed SCAQMD significance thresholds for ozone precursor pollutants, Volatile Organic Compounds (VOC) and Nitrogen Oxides (Nox), as well as PM10 and PM2.5 for which the SCAB is in non-attainment. Projects in the Basin with construction or operation related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact. As the project's emissions would not exceed SCAQMD thresholds, the project would have a less than significant impact.

*Therefore, less than significant impacts will occur and no mitigation is required.*

**c) Expose sensitive receptors to substantial pollutant concentrations**

**Less Than Significant Impact.**

The California Air Quality Management District's recommend that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. Sensitive receptors are defined as populations that are more susceptible to the effects of pollution than the population at large. The SCAQMD identifies the following as sensitive receptors: residences, schools, daycare centers, playgrounds, and medical facilities.

Although the Project site is adjacent to residential uses, no SCAQMD criteria pollutant thresholds or GHG emissions thresholds would be exceeded during either project construction or operations. In addition, the Project does not exceed the LSTs, based on the estimates of the emissions associated with project construction and operation. The only potential impacts to the surrounding sensitive receptors would be

dust pollutants during the construction phase. However, due to the temporary nature of construction, impacts from dust pollutants would not be significant. Overall, the project would not expose any sensitive receptors to substantial pollutant concentrations and a less than significant impact would occur.

Therefore, the proposed Project would not be expected to create any significant localized air quality impacts during the construction or operation period.

*Therefore, less than significant impacts will occur and no mitigation is required.*

#### **d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people**

##### **Less Than Significant Impact.**

CEQA requires that an analysis of potential odor impacts be conducted for the following two situations:

- ✓ Generators – projects that would potentially generate odorous emissions proposed to be located near existing sensitive receptors or other land uses where people may congregate, and
- ✓ Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people located near existing odor sources.

The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. During construction, diesel equipment operating at the site may generate some nuisance odors. Standard construction requirements will minimize the odor impacts from construction, resulting in minimal, temporary and short-term odor emissions, and thus is considered less than significant.

Land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations. These land uses are not proposed for this project. Overall, odor impacts would be less than significant.

*Therefore, less than significant impacts will occur and no mitigation is required.*

#### **Greenhouse Gas Emissions**

Elevated Entitlements quantified greenhouse gas (GHG) emissions resulting from the construction and operation of the project from CalEEMod Version 2022.1.1.37. This software was used as the GHG quantification tool for this project.

The proposed project would generate an estimated total of 562.01 annual mitigated metric tons of CO<sub>2</sub>e emissions during construction. The SCAQMD recommends amortizing construction emissions over a period of 30 years to estimate the contribution of construction emissions to operational emissions over the project lifetime. Amortized over 30 years, the construction of the project will generate approximately 18.73 metric tons of CO<sub>2</sub>e on an annualized basis. Based on the results of the CalEEMod Model, shown in Table 12 above, the project would generate a total of 540.47 tons of CO<sub>2</sub>e emissions per year from annual mitigated operations. By adding the amortized construction emissions results with the operational

annual CO<sub>2</sub>e emissions the project will produce 559.2 metric tons of CO<sub>2</sub>e annually over a 30-year period, or 16,776 metric tons of CO<sub>2</sub>e total. This cumulative level is below the SCAQMD's recommended Tier 3 threshold of 3,000 metric tons of CO<sub>2</sub>e emissions for residential and commercial land uses per year.

**a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment**

**Less Than Significant Impact.**

In December 2008, the South Coast Air Quality Management District (SCAQMD) Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD guidance identifies a threshold of 3,000 MTCO<sub>2</sub>eq./year for GHG for construction emissions amortized over a 30-year project lifetime, plus annual operation emissions. Table 12 shows the GHG emissions generated by the Project as determined by the CalEEMod model, which is less than SCAQMD thresholds.

During construction of the project, GHGs would be emitted through the operation of construction equipment. However, due to the temporary and short-term construction period, the project would not result in significant and long-term impacts. During operations, mobile source emissions of GHGs would include electricity, gas use, and project-generated vehicle trips associated with residential uses. As shown in Table 12, the Project would not exceed the SCAQMD thresholds for construction and operation.

There would be no increase in severity to the greenhouse gas impacts, and implementation of the Project will not result in Project-specific or site-specific significant adverse impacts from greenhouse gas emissions within the Project study area. Therefore, less than significant impacts would occur and no mitigation measures are needed.

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases**

**Less Than Significant Impact.**

California passed the California Global Warming Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. Under AB 32, CARB must adopt regulations by January 1, 2011, to achieve reductions in GHGs to meet the 1990 emission cap by 2020. On December 11, 2008, CARB adopted its initial Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial 2022 Climate Change Scoping Plan.

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

Executive Order B-30-15 establishes a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires MPO's to implement measures that will achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designate locations for land uses to regulate growth.

The Project is consistent with the currently adopted General Plan for the City and the adopted Southern California Association of Governments (SCAG) Regional Transportation Plans(RTP)/SCS and is therefore consistent with the population growth and Vehicle Miles Traveled (VMT) applied in those plan documents. Therefore, the Project is consistent with the growth assumptions used in the applicable AQP.

CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial Scoping Plan. The current plan, CARB's Climate Change 2022 Scoping Plan, has identified new policies and actions to accomplish the State's 2030 GHG limit. Below is a list of applicable strategies in the Scoping Plan and the Project's consistency with those strategies.

- ✓ California Light-Duty Vehicle (LDV) GHG Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicles (ZEVs), alternative and renewable fuel and vehicle technology programs for long-term climate change goals. Implemented 100% of LDV sales to be ZEV by 2035.
  - The Project is consistent with this reduction measure. This measure cannot be implemented by a particular project or lead agency since it is a statewide measure. When this measure is implemented, standards would be applicable to light-duty vehicles that would access the Project. The Project would not conflict or obstruct this reduction measure.
  
- ✓ Energy Efficiency – Pursuit of comparable investment in energy efficiency from all retail providers of electricity in California. Maximize energy efficiency building and appliance standards.
  - The Project is consistent with this reduction measure. Though this measure applies to the State to increase its energy standards, the Project would comply with this measure through existing regulation. The Project would not conflict or obstruct this reduction measure.
  
- ✓ Low Carbon Fuel – Development and adoption of the low carbon fuel standard.
  - The Project is consistent with this reduction measure. This measure cannot be implemented by a particular project or lead agency since it is a statewide measure. When this measure is implemented, standards would be applicable to the fuel used by vehicles that would access the Project. The Project would not conflict or obstruct this reduction measure.

Based on the assessment above, the Project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, any impacts would be less than significant, and no mitigation would be required.

## 9.0 REFERENCES

- Association of Environmental Professionals. 2007. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*. June.
- California Air Pollution Control Officers Association. 2008. *CEQA and Climate Change – Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January.
- California Air Resources Board. 2024. Table of Ambient Air Quality Standards
- California Air Resources Board. 2022. State Implementation Plan
- California Air Resources Board. 2022. *Scoping Plan for Achieving Carbon Neutrality*. December
- California Air Resources Board. 2014. EMFAC2014 Emissions Model.
- California Air Resources Board, Common Air Pollutants
- California Air Resources Board. 2017. Climate Change Scoping Plan
- City of Moreno Valley 2006 General Plan
- City of Moreno Valley 2040 General Plan
- ENVIRON 2022. CalEEMod Version 2022.1.1.37
- Judicial Branch of California. 2018. S219783-Sierra Club V. County of Fresno (Friant Ranch)
- NOAA Online Weather Data <https://www.weather.gov/wrh/Climate?wfo=sgxy>
- SCAQMD. 2008. GHG Significance Threshold, SCAQMD Board Agenda Item 31, December 5.
- SCAQMD. 2009. LST Look-up Tables.
- SCAQMD. South Coast AQMD Rule Book
- SCAQMD. 2023. South Coast AQMD Air Quality Significance Thresholds/<https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>
- SCAQMD. 2022. South Coast AQMD Air Quality Management Plan. December
- SCAQMD. Fact Sheet for Applying CalEEMod Localized Significance Thresholds <https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf>

# Cottonwood Apartments Detailed Report

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5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.3. Land Use

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Cottonwood Apartments
Construction Start Date	9/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	10.00000
Location	33.92556052143141, -117.22295197973723
County	Riverside-South Coast
City	Moreno Valley
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5591
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Low Rise	184.000	Dwelling Unit	9.40000	174,231	33,000.0	—	594.000	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Energy	E-2	Require Energy Efficient Appliances
Water	W-4	Require Low-Flow Water Fixtures
Area Sources	AS-2	Use Low-VOC Paints

\* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.71067	3.12192	28.0332	29.4418	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,534.69	5,534.69	0.21760	0.16932	6.33867	5,556.15
Mit.	3.71067	3.12192	28.0332	29.4418	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,534.69	5,534.69	0.21760	0.16932	6.33867	5,556.15
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	54.7552	54.7303	28.0411	29.1580	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,515.67	5,515.67	0.21799	0.16932	0.18295	5,536.42
Mit.	49.0299	49.0051	28.0411	29.1580	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,515.67	5,515.67	0.21799	0.16932	0.18295	5,536.42
% Reduced	10%	10%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	3.96183	3.83576	5.80555	11.2570	0.01578	0.18058	1.04183	1.22240	0.16651	0.24788	0.41439	—	2,587.40	2,587.40	0.07366	0.09260	1.50426	2,618.34
Mit.	3.64811	3.52205	5.80555	11.2570	0.01578	0.18058	1.04183	1.22240	0.16651	0.24788	0.41439	—	2,587.40	2,587.40	0.07366	0.09260	1.50426	2,618.34
% Reduced	8%	8%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.72303	0.70003	1.05951	2.05440	0.00288	0.03296	0.19013	0.22309	0.03039	0.04524	0.07563	—	428.373	428.373	0.01220	0.01533	0.24905	433.496
Mit.	0.66578	0.64277	1.05951	2.05440	0.00288	0.03296	0.19013	0.22309	0.03039	0.04524	0.07563	—	428.373	428.373	0.01220	0.01533	0.24905	433.496
% Reduced	8%	8%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.71067	3.12192	28.0332	29.4418	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,534.69	5,534.69	0.21760	0.05128	0.73589	5,556.15
2028	1.78793	1.51770	9.96043	21.3229	0.02782	0.30908	1.89993	2.20901	0.28507	0.45239	0.73745	—	4,725.30	4,725.30	0.12689	0.16932	6.33867	4,785.26
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.70681	3.11806	28.0411	29.1580	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,515.67	5,515.67	0.21799	0.16932	0.18295	5,536.42
2028	54.7552	54.7303	10.0475	19.3299	0.02782	0.30908	1.89993	2.20901	0.28507	0.45239	0.73745	—	4,584.70	4,584.70	0.12981	0.16932	0.16466	4,638.57
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.38354	0.32353	2.56817	3.71861	0.00550	0.09797	0.55932	0.65729	0.09020	0.22818	0.31839	—	769.506	769.506	0.02557	0.01935	0.31529	776.225
2028	3.96183	3.83576	5.80555	11.2570	0.01578	0.18058	1.04183	1.22240	0.16651	0.24788	0.41439	—	2,587.40	2,587.40	0.07366	0.09260	1.50426	2,618.34
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07000	0.05904	0.46869	0.67865	0.00100	0.01788	0.10208	0.11996	0.01646	0.04164	0.05811	—	127.400	127.400	0.00423	0.00320	0.05220	128.513
2028	0.72303	0.70003	1.05951	2.05440	0.00288	0.03296	0.19013	0.22309	0.03039	0.04524	0.07563	—	428.373	428.373	0.01220	0.01533	0.24905	433.496

### 2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.71067	3.12192	28.0332	29.4418	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,534.69	5,534.69	0.21760	0.05128	0.73589	5,556.15
2028	1.78793	1.51770	9.96043	21.3229	0.02782	0.30908	1.89993	2.20901	0.28507	0.45239	0.73745	—	4,725.30	4,725.30	0.12689	0.16932	6.33867	4,785.26
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.70681	3.11806	28.0411	29.1580	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,515.67	5,515.67	0.21799	0.16932	0.18295	5,536.42
2028	49.0299	49.0051	10.0475	19.3299	0.02782	0.30908	1.89993	2.20901	0.28507	0.45239	0.73745	—	4,584.70	4,584.70	0.12981	0.16932	0.16466	4,638.57
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.38354	0.32353	2.56817	3.71861	0.00550	0.09797	0.55932	0.65729	0.09020	0.22818	0.31839	—	769.506	769.506	0.02557	0.01935	0.31529	776.225
2028	3.64811	3.52205	5.80555	11.2570	0.01578	0.18058	1.04183	1.22240	0.16651	0.24788	0.41439	—	2,587.40	2,587.40	0.07366	0.09260	1.50426	2,618.34
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07000	0.05904	0.46869	0.67865	0.00100	0.01788	0.10208	0.11996	0.01646	0.04164	0.05811	—	127.400	127.400	0.00423	0.00320	0.05220	128.513
2028	0.66578	0.64277	1.05951	2.05440	0.00288	0.03296	0.19013	0.22309	0.03039	0.04524	0.07563	—	428.373	428.373	0.01220	0.01533	0.24905	433.496

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.58691	8.41899	1.82862	16.7318	0.00766	0.07319	0.00708	0.08027	0.07165	0.00180	0.07345	87.6304	3,169.13	3,256.76	9.14872	0.13223	1.26817	3,526.15
Mit.	8.55703	8.38912	1.82862	16.7318	0.00766	0.07319	0.00708	0.08027	0.07165	0.00180	0.07345	84.6374	3,085.25	3,169.88	8.83662	0.12431	1.26817	3,429.11

% Reduced	< 0.5%	< 0.5%	—	—	—	—	—	—	—	—	—	3%	3%	3%	3%	6%	—	3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.39873	7.27320	1.78477	7.24035	0.00723	0.06842	0.00708	0.07550	0.06806	0.00180	0.06985	87.6304	3,143.53	3,231.16	9.16630	0.13460	1.24837	3,501.68
Mit.	7.36885	7.24333	1.78477	7.24035	0.00723	0.06842	0.00708	0.07550	0.06806	0.00180	0.06985	84.6374	3,059.64	3,144.28	8.85420	0.12668	1.24837	3,404.64
% Reduced	< 0.5%	< 0.5%	—	—	—	—	—	—	—	—	—	3%	3%	3%	3%	6%	—	3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.77472	4.69374	0.85559	7.50441	0.00534	0.06704	0.00000	0.06704	0.06623	0.00000	0.06623	87.6304	2,935.19	3,022.83	9.00369	0.05138	1.24784	3,264.48
Mit.	4.74484	4.66386	0.85559	7.50441	0.00534	0.06704	0.00000	0.06704	0.06623	0.00000	0.06623	84.6374	2,851.31	2,935.95	8.69159	0.04346	1.24784	3,167.44
% Reduced	1%	1%	—	—	—	—	—	—	—	—	—	3%	3%	3%	3%	15%	—	3%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.87139	0.85661	0.15614	1.36955	0.00097	0.01223	0.00000	0.01223	0.01209	0.00000	0.01209	14.5082	485.955	500.463	1.49066	0.00851	0.20659	540.472
Mit.	0.86593	0.85115	0.15614	1.36955	0.00097	0.01223	0.00000	0.01223	0.01209	0.00000	0.01209	14.0127	472.067	486.080	1.43899	0.00720	0.20659	524.405
% Reduced	1%	1%	—	—	—	—	—	—	—	—	—	3%	3%	3%	3%	15%	—	3%

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.51083	3.43992	0.94212	5.92968	0.00217	0.00464	0.00708	0.01172	0.00428	0.00180	0.00607	—	225.142	225.142	0.14466	0.08077	0.02032	252.849
Area	4.98382	4.93294	0.09811	10.4666	0.00045	0.00481	—	0.00481	0.00364	—	0.00364	—	27.9105	27.9105	0.00117	0.00023	—	28.0086
Energy	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	2,836.88	2,836.88	0.20246	0.01569	—	2,846.62

Water	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Waste	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	8.58691	8.41899	1.82862	16.7318	0.00766	0.07319	0.00708	0.08027	0.07165	0.00180	0.07345	87.6304	3,169.13	3,256.76	9.14872	0.13223	1.26817	3,526.15
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.27915	3.19976	0.99638	6.90487	0.00220	0.00468	0.00708	0.01176	0.00431	0.00180	0.00611	—	227.451	227.451	0.16341	0.08338	0.00053	256.384
Area	4.02732	4.02732	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	2,836.88	2,836.88	0.20246	0.01569	—	2,846.62
Water	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Waste	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	7.39873	7.27320	1.78477	7.24035	0.00723	0.06842	0.00708	0.07550	0.06806	0.00180	0.06985	87.6304	3,143.53	3,231.16	9.16630	0.13460	1.24837	3,501.68
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	4.68246	4.64761	0.06720	7.16892	0.00031	0.00330	—	0.00330	0.00249	—	0.00249	—	19.1167	19.1167	0.00080	0.00016	—	19.1840
Energy	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	2,836.88	2,836.88	0.20246	0.01569	—	2,846.62
Water	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Waste	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	4.77472	4.69374	0.85559	7.50441	0.00534	0.06704	0.00000	0.06704	0.06623	0.00000	0.06623	87.6304	2,935.19	3,022.83	9.00369	0.05138	1.24784	3,264.48
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	0.85455	0.84819	0.01226	1.30833	0.00006	0.00060	—	0.00060	0.00045	—	0.00045	—	3.16500	3.16500	0.00013	0.00003	—	3.17613
Energy	0.01684	0.00842	0.14388	0.06123	0.00092	0.01163	—	0.01163	0.01163	—	0.01163	—	469.678	469.678	0.03352	0.00260	—	471.290
Water	—	—	—	—	—	—	—	—	—	—	—	2.37433	13.1123	15.4867	0.24427	0.00588	—	23.3467
Waste	—	—	—	—	—	—	—	—	—	—	—	12.1339	0.00000	12.1339	1.21274	0.00000	—	42.4523

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20659	0.20659
Total	0.87139	0.85661	0.15614	1.36955	0.00097	0.01223	0.00000	0.01223	0.01209	0.00000	0.01209	14.5082	485.955	500.463	1.49066	0.00851	0.20659	540.472

## 2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.51083	3.43992	0.94212	5.92968	0.00217	0.00464	0.00708	0.01172	0.00428	0.00180	0.00607	—	225.142	225.142	0.14466	0.08077	0.02032	252.849
Area	4.95394	4.90306	0.09811	10.4666	0.00045	0.00481	—	0.00481	0.00364	—	0.00364	—	27.9105	27.9105	0.00117	0.00023	—	28.0086
Energy	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	2,768.49	2,768.49	0.19822	0.01518	—	2,777.97
Water	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Waste	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	8.55703	8.38912	1.82862	16.7318	0.00766	0.07319	0.00708	0.08027	0.07165	0.00180	0.07345	84.6374	3,085.25	3,169.88	8.83662	0.12431	1.26817	3,429.11
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.27915	3.19976	0.99638	6.90487	0.00220	0.00468	0.00708	0.01176	0.00431	0.00180	0.00611	—	227.451	227.451	0.16341	0.08338	0.00053	256.384
Area	3.99744	3.99744	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	2,768.49	2,768.49	0.19822	0.01518	—	2,777.97
Water	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Waste	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	7.36885	7.24333	1.78477	7.24035	0.00723	0.06842	0.00708	0.07550	0.06806	0.00180	0.06985	84.6374	3,059.64	3,144.28	8.85420	0.12668	1.24837	3,404.64
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	4.65258	4.61773	0.06720	7.16892	0.00031	0.00330	—	0.00330	0.00249	—	0.00249	—	19.1167	19.1167	0.00080	0.00016	—	19.1840

Energy	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	2,768.49	2,768.49	0.19822	0.01518	—	2,777.97
Water	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Waste	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	4.74484	4.66386	0.85559	7.50441	0.00534	0.06704	0.00000	0.06704	0.06623	0.00000	0.06623	84.6374	2,851.31	2,935.95	8.69159	0.04346	1.24784	3,167.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	0.84910	0.84274	0.01226	1.30833	0.00006	0.00060	—	0.00060	0.00045	—	0.00045	—	3.16500	3.16500	0.00013	0.00003	—	3.17613
Energy	0.01684	0.00842	0.14388	0.06123	0.00092	0.01163	—	0.01163	0.01163	—	0.01163	—	458.355	458.355	0.03282	0.00251	—	459.924
Water	—	—	—	—	—	—	—	—	—	—	—	1.87880	10.5467	12.4255	0.19330	0.00466	—	18.6458
Waste	—	—	—	—	—	—	—	—	—	—	—	12.1339	0.00000	12.1339	1.21274	0.00000	—	42.4523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20659	0.20659
Total	0.86593	0.85115	0.15614	1.36955	0.00097	0.01223	0.00000	0.01223	0.01209	0.00000	0.01209	14.0127	472.067	486.080	1.43899	0.00720	0.20659	524.405

### 3. Construction Emissions Details

#### 3.1. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00	
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—	
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09950	0.08361	0.76637	0.77478	0.00134	0.03210	—	0.03210	0.02953	—	0.02953	—	145.146	145.146	0.00589	0.00118	—	145.644	
Dust From Material Movement	—	—	—	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—	—	—	—	—	—	—	
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01816	0.01526	0.13986	0.14140	0.00024	0.00586	—	0.00586	0.00539	—	0.00539	—	24.0305	24.0305	0.00097	0.00019	—	24.1130	
Dust From Material Movement	—	—	—	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—	—	—	—	—	—	—	
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07890	0.07022	0.06076	1.16244	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	236.876	236.876	0.00270	0.00829	0.73589	240.151
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07504	0.06636	0.06867	0.87868	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	217.856	217.856	0.00309	0.00829	0.01909	220.424
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00206	0.00182	0.00208	0.02527	0.00000	0.00000	0.00623	0.00623	0.00000	0.00146	0.00146	—	6.04417	6.04417	0.00008	0.00023	0.00870	6.12271
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00033	0.00038	0.00461	0.00000	0.00000	0.00114	0.00114	0.00000	0.00027	0.00027	—	1.00068	1.00068	0.00001	0.00004	0.00144	1.01368
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.2. Site Preparation (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09950	0.08361	0.76637	0.77478	0.00134	0.03210	—	0.03210	0.02953	—	0.02953	—	145.146	145.146	0.00589	0.00118	—	145.644
Dust From Material Movement	—	—	—	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01816	0.01526	0.13986	0.14140	0.00024	0.00586	—	0.00586	0.00539	—	0.00539	—	24.0305	24.0305	0.00097	0.00019	—	24.1130

Dust From Material Movement	—	—	—	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07890	0.07022	0.06076	1.16244	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	236.876	236.876	0.00270	0.00829	0.73589	240.151
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07504	0.06636	0.06867	0.87868	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	217.856	217.856	0.00309	0.00829	0.01909	220.424
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00206	0.00182	0.00208	0.02527	0.00000	0.00000	0.00623	0.00623	0.00000	0.00146	0.00146	—	6.04417	6.04417	0.00008	0.00023	0.00870	6.12271
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00033	0.00038	0.00461	0.00000	0.00000	0.00114	0.00114	0.00000	0.00027	0.00027	—	1.00068	1.00068	0.00001	0.00004	0.00144	1.01368
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.3. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.88795	1.58640	14.2321	17.2743	0.02733	0.59767	—	0.59767	0.54986	—	0.54986	—	2,960.07	2,960.07	0.12007	0.02401	—	2,970.23
Dust From Material Movement	—	—	—	—	—	—	2.76221	2.76221	—	1.33565	1.33565	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10345	0.08693	0.77984	0.94654	0.00150	0.03275	—	0.03275	0.03013	—	0.03013	—	162.196	162.196	0.00658	0.00132	—	162.752
Dust From Material Movement	—	—	—	—	—	—	0.15135	0.15135	—	0.07319	0.07319	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01888	0.01586	0.14232	0.17274	0.00027	0.00598	—	0.00598	0.00550	—	0.00550	—	26.8534	26.8534	0.00109	0.00022	—	26.9455

Dust From Material Movement	—	—	—	—	—	—	0.02762	0.02762	—	0.01336	0.01336	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06432	0.05688	0.05886	0.75315	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	186.733	186.733	0.00265	0.00711	0.01636	188.935
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00352	0.00312	0.00356	0.04332	0.00000	0.00000	0.01067	0.01067	0.00000	0.00250	0.00250	—	10.3614	10.3614	0.00014	0.00039	0.01491	10.4961
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00064	0.00057	0.00065	0.00791	0.00000	0.00000	0.00195	0.00195	0.00000	0.00046	0.00046	—	1.71545	1.71545	0.00002	0.00006	0.00247	1.73774
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Grading (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.88795	1.58640	14.2321	17.2743	0.02733	0.59767	—	0.59767	0.54986	—	0.54986	—	2,960.07	2,960.07	0.12007	0.02401	—	2,970.23
Dust From Material Movement	—	—	—	—	—	—	2.76221	2.76221	—	1.33565	1.33565	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10345	0.08693	0.77984	0.94654	0.00150	0.03275	—	0.03275	0.03013	—	0.03013	—	162.196	162.196	0.00658	0.00132	—	162.752
Dust From Material Movement	—	—	—	—	—	—	0.15135	0.15135	—	0.07319	0.07319	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01888	0.01586	0.14232	0.17274	0.00027	0.00598	—	0.00598	0.00550	—	0.00550	—	26.8534	26.8534	0.00109	0.00022	—	26.9455
Dust From Material Movement	—	—	—	—	—	—	0.02762	0.02762	—	0.01336	0.01336	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06432	0.05688	0.05886	0.75315	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	186.733	186.733	0.00265	0.00711	0.01636	188.935	
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.00352	0.00312	0.00356	0.04332	0.00000	0.00000	0.01067	0.01067	0.00000	0.00250	0.00250	—	10.3614	10.3614	0.00014	0.00039	0.01491	10.4961	
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.00064	0.00057	0.00065	0.00791	0.00000	0.00000	0.00195	0.00195	0.00000	0.00046	0.00046	—	1.71545	1.71545	0.00002	0.00006	0.00247	1.73774	
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

### 3.5. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.23076	1.02988	9.39093	12.9379	0.02340	0.33657	—	0.33657	0.30965	—	0.30965	—	2,397.08	2,397.08	0.09724	0.01945	—	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11802	0.09876	0.90050	1.24063	0.00224	0.03227	—	0.03227	0.02969	—	0.02969	—	229.857	229.857	0.00932	0.00186	—	230.646
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02154	0.01802	0.16434	0.22641	0.00041	0.00589	—	0.00589	0.00542	—	0.00542	—	38.0554	38.0554	0.00154	0.00031	—	38.1860
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56807	0.50236	0.51988	6.65186	0.00000	0.00000	1.73164	1.73164	0.00000	0.40589	0.40589	—	1,649.23	1,649.23	0.02337	0.06279	0.14449	1,668.67
Vendor	0.02584	0.01136	0.63520	0.19644	0.00442	0.00885	0.16829	0.17714	0.00885	0.04650	0.05534	—	581.707	581.707	0.01318	0.08708	0.03846	608.023
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05447	0.04817	0.05503	0.66950	0.00000	0.00000	0.16498	0.16498	0.00000	0.03865	0.03865	—	160.146	160.146	0.00224	0.00602	0.23042	162.227
Vendor	0.00252	0.00113	0.06079	0.01859	0.00042	0.00085	0.01605	0.01690	0.00085	0.00444	0.00528	—	55.7555	55.7555	0.00131	0.00835	0.06126	58.3376
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00994	0.00879	0.01004	0.12218	0.00000	0.00000	0.03011	0.03011	0.00000	0.00705	0.00705	—	26.5141	26.5141	0.00037	0.00100	0.03815	26.8586
Vendor	0.00046	0.00021	0.01109	0.00339	0.00008	0.00015	0.00293	0.00308	0.00015	0.00081	0.00096	—	9.23096	9.23096	0.00022	0.00138	0.01014	9.65846
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.6. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23076	1.02988	9.39093	12.9379	0.02340	0.33657	—	0.33657	0.30965	—	0.30965	—	2,397.08	2,397.08	0.09724	0.01945	—	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11802	0.09876	0.90050	1.24063	0.00224	0.03227	—	0.03227	0.02969	—	0.02969	—	229.857	229.857	0.00932	0.00186	—	230.646
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02154	0.01802	0.16434	0.22641	0.00041	0.00589	—	0.00589	0.00542	—	0.00542	—	38.0554	38.0554	0.00154	0.00031	—	38.1860

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56807	0.50236	0.51988	6.65186	0.00000	0.00000	1.73164	1.73164	0.00000	0.40589	0.40589	—	1,649.23	1,649.23	0.02337	0.06279	0.14449	1,668.67	
Vendor	0.02584	0.01136	0.63520	0.19644	0.00442	0.00885	0.16829	0.17714	0.00885	0.04650	0.05534	—	581.707	581.707	0.01318	0.08708	0.03846	608.023	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.05447	0.04817	0.05503	0.66950	0.00000	0.00000	0.16498	0.16498	0.00000	0.03865	0.03865	—	160.146	160.146	0.00224	0.00602	0.23042	162.227	
Vendor	0.00252	0.00113	0.06079	0.01859	0.00042	0.00085	0.01605	0.01690	0.00085	0.00444	0.00528	—	55.7555	55.7555	0.00131	0.00835	0.06126	58.3376	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.00994	0.00879	0.01004	0.12218	0.00000	0.00000	0.03011	0.03011	0.00000	0.00705	0.00705	—	26.5141	26.5141	0.00037	0.00100	0.03815	26.8586	
Vendor	0.00046	0.00021	0.01109	0.00339	0.00008	0.00015	0.00293	0.00308	0.00015	0.00081	0.00096	—	9.23096	9.23096	0.00022	0.00138	0.01014	9.65846	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

### 3.7. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63530	0.53161	4.78559	6.93593	0.01255	0.16099	—	0.16099	0.14811	—	0.14811	—	1,285.52	1,285.52	0.05215	0.01043	—	1,289.94
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11594	0.09702	0.87337	1.26581	0.00229	0.02938	—	0.02938	0.02703	—	0.02703	—	212.833	212.833	0.00863	0.00173	—	213.564
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57684	0.51404	0.45709	8.20128	0.00000	0.00000	1.73164	1.73164	0.00000	0.40589	0.40589	—	1,759.73	1,759.73	0.02044	0.06279	4.99143	1,783.95
Vendor	0.02628	0.01223	0.57839	0.18638	0.00442	0.00885	0.16829	0.17714	0.00885	0.04650	0.05534	—	568.104	568.104	0.00919	0.08708	1.34724	595.630

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49652	0.48483	0.51696	6.20353	0.00000	0.00000	1.73164	1.73164	0.00000	0.40589	0.40589	—	1,618.69	1,618.69	0.02337	0.06279	0.12981	1,638.12	
Vendor	0.02541	0.01136	0.60562	0.19115	0.00442	0.00885	0.16829	0.17714	0.00885	0.04650	0.05534	—	568.554	568.554	0.00919	0.08708	0.03485	594.767	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.26467	0.25840	0.27720	3.50332	0.00000	0.00000	0.92255	0.92255	0.00000	0.21615	0.21615	—	878.907	878.907	0.01253	0.03367	1.15592	890.410	
Vendor	0.01386	0.00632	0.32646	0.10133	0.00237	0.00474	0.08975	0.09449	0.00474	0.02481	0.02955	—	304.721	304.721	0.00493	0.04669	0.31134	319.069	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.04830	0.04716	0.05059	0.63936	0.00000	0.00000	0.16836	0.16836	0.00000	0.03945	0.03945	—	145.513	145.513	0.00207	0.00557	0.19138	147.418	
Vendor	0.00253	0.00115	0.05958	0.01849	0.00043	0.00087	0.01638	0.01725	0.00087	0.00453	0.00539	—	50.4501	50.4501	0.00082	0.00773	0.05155	52.8256	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

### 3.8. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63530	0.53161	4.78559	6.93593	0.01255	0.16099	—	0.16099	0.14811	—	0.14811	—	1,285.52	1,285.52	0.05215	0.01043	—	1,289.94
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11594	0.09702	0.87337	1.26581	0.00229	0.02938	—	0.02938	0.02703	—	0.02703	—	212.833	212.833	0.00863	0.00173	—	213.564
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57684	0.51404	0.45709	8.20128	0.00000	0.00000	1.73164	1.73164	0.00000	0.40589	0.40589	—	1,759.73	1,759.73	0.02044	0.06279	4.99143	1,783.95
Vendor	0.02628	0.01223	0.57839	0.18638	0.00442	0.00885	0.16829	0.17714	0.00885	0.04650	0.05534	—	568.104	568.104	0.00919	0.08708	1.34724	595.630
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49652	0.48483	0.51696	6.20353	0.00000	0.00000	1.73164	1.73164	0.00000	0.40589	0.40589	—	1,618.69	1,618.69	0.02337	0.06279	0.12981	1,638.12

Vendor	0.02541	0.01136	0.60562	0.19115	0.00442	0.00885	0.16829	0.17714	0.00885	0.04650	0.05534	—	568.554	568.554	0.00919	0.08708	0.03485	594.767
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26467	0.25840	0.27720	3.50332	0.00000	0.00000	0.92255	0.92255	0.00000	0.21615	0.21615	—	878.907	878.907	0.01253	0.03367	1.15592	890.410
Vendor	0.01386	0.00632	0.32646	0.10133	0.00237	0.00474	0.08975	0.09449	0.00474	0.02481	0.02955	—	304.721	304.721	0.00493	0.04669	0.31134	319.069
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04830	0.04716	0.05059	0.63936	0.00000	0.00000	0.16836	0.16836	0.00000	0.03945	0.03945	—	145.513	145.513	0.00207	0.00557	0.19138	147.418
Vendor	0.00253	0.00115	0.05958	0.01849	0.00043	0.00087	0.01638	0.01725	0.00087	0.00453	0.00539	—	50.4501	50.4501	0.00082	0.00773	0.05155	52.8256
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.9. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81550	0.68524	6.62754	9.90989	0.01395	0.25554	—	0.25554	0.23510	—	0.23510	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.22
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.04468	0.03755	0.36315	0.54301	0.00076	0.01400	—	0.01400	0.01288	—	0.01288	—	82.7962	82.7962	0.00336	0.00067	—	83.0803
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00815	0.00685	0.06628	0.09910	0.00014	0.00256	—	0.00256	0.00235	—	0.00235	—	13.7079	13.7079	0.00056	0.00011	—	13.7549
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05622	0.05490	0.05853	0.70239	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	183.276	183.276	0.00265	0.00711	0.01470	185.475
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00306	0.00299	0.00321	0.04053	0.00000	0.00000	0.01067	0.01067	0.00000	0.00250	0.00250	—	10.1693	10.1693	0.00014	0.00039	0.01337	10.3024
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00056	0.00055	0.00059	0.00740	0.00000	0.00000	0.00195	0.00195	0.00000	0.00046	0.00046	—	1.68365	1.68365	0.00002	0.00006	0.00221	1.70568
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.10. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81550	0.68524	6.62754	9.90989	0.01395	0.25554	—	0.25554	0.23510	—	0.23510	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.22
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04468	0.03755	0.36315	0.54301	0.00076	0.01400	—	0.01400	0.01288	—	0.01288	—	82.7962	82.7962	0.00336	0.00067	—	83.0803
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00815	0.00685	0.06628	0.09910	0.00014	0.00256	—	0.00256	0.00235	—	0.00235	—	13.7079	13.7079	0.00056	0.00011	—	13.7549
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05622	0.05490	0.05853	0.70239	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	183.276	183.276	0.00265	0.00711	0.01470	185.475
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00306	0.00299	0.00321	0.04053	0.00000	0.00000	0.01067	0.01067	0.00000	0.00250	0.00250	—	10.1693	10.1693	0.00014	0.00039	0.01337	10.3024
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00056	0.00055	0.00059	0.00740	0.00000	0.00000	0.00195	0.00195	0.00000	0.00046	0.00046	—	1.68365	1.68365	0.00002	0.00006	0.00221	1.70568
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.11. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	54.5260	54.5260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00711	0.00588	0.04428	0.06128	0.00009	0.00084	—	0.00084	0.00077	—	0.00077	—	7.31600	7.31600	0.00030	0.00006	—	7.34111
Architectural Coatings	2.98773	2.98773	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00130	0.00107	0.00808	0.01118	0.00002	0.00015	—	0.00015	0.00014	—	0.00014	—	1.21125	1.21125	0.00005	0.00001	—	1.21540
Architectural Coatings	0.54526	0.54526	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09930	0.09697	0.10339	1.24071	0.00000	0.00000	0.34633	0.34633	0.00000	0.08118	0.08118	—	323.738	323.738	0.00467	0.01256	0.02596	327.624
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00541	0.00528	0.00567	0.07160	0.00000	0.00000	0.01885	0.01885	0.00000	0.00442	0.00442	—	17.9631	17.9631	0.00026	0.00069	0.02362	18.1982
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00099	0.00096	0.00103	0.01307	0.00000	0.00000	0.00344	0.00344	0.00000	0.00081	0.00081	—	2.97399	2.97399	0.00004	0.00011	0.00391	3.01291
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

### 3.12. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975

Architectural Coating	48.8008	48.8008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00711	0.00588	0.04428	0.06128	0.00009	0.00084	—	0.00084	0.00077	—	0.00077	—	7.31600	7.31600	0.00030	0.00006	—	7.34111
Architectural Coatings	2.67402	2.67402	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00130	0.00107	0.00808	0.01118	0.00002	0.00015	—	0.00015	0.00014	—	0.00014	—	1.21125	1.21125	0.00005	0.00001	—	1.21540
Architectural Coatings	0.48801	0.48801	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09930	0.09697	0.10339	1.24071	0.00000	0.00000	0.34633	0.34633	0.00000	0.08118	0.08118	—	323.738	323.738	0.00467	0.01256	0.02596	327.624
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00541	0.00528	0.00567	0.07160	0.00000	0.00000	0.01885	0.01885	0.00000	0.00442	0.00442	—	17.9631	17.9631	0.00026	0.00069	0.02362	18.1982	
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.00099	0.00096	0.00103	0.01307	0.00000	0.00000	0.00344	0.00344	0.00000	0.00081	0.00081	—	2.97399	2.97399	0.00004	0.00011	0.00391	3.01291	
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

#### 4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,836.16	1,836.16	0.11390	0.01381	—	1,843.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,836.16	1,836.16	0.11390	0.01381	—	1,843.12
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,836.16	1,836.16	0.11390	0.01381	—	1,843.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,836.16	1,836.16	0.11390	0.01381	—	1,843.12
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	303.997	303.997	0.01886	0.00229	—	305.149
Total	—	—	—	—	—	—	—	—	—	—	—	—	303.997	303.997	0.01886	0.00229	—	305.149

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,767.77	1,767.77	0.10966	0.01329	—	1,774.47	
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,767.77	1,767.77	0.10966	0.01329	—	1,774.47	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,767.77	1,767.77	0.10966	0.01329	—	1,774.47	

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1,767.77	1,767.77	0.10966	0.01329	—	1,774.47
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	292.674	292.674	0.01816	0.00220	—	293.784
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	292.674	292.674	0.01816	0.00220	—	293.784

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Total	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Total	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01684	0.00842	0.14388	0.06123	0.00092	0.01163	—	0.01163	0.01163	—	0.01163	—	165.681	165.681	0.01466	0.00031	—	166.140
Total	0.01684	0.00842	0.14388	0.06123	0.00092	0.01163	—	0.01163	0.01163	—	0.01163	—	165.681	165.681	0.01466	0.00031	—	166.140

#### 4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Total	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Total	0.09226	0.04613	0.78839	0.33548	0.00503	0.06374	—	0.06374	0.06374	—	0.06374	—	1,000.72	1,000.72	0.08856	0.00188	—	1,003.50
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01684	0.00842	0.14388	0.06123	0.00092	0.01163	—	0.01163	0.01163	—	0.01163	—	165.681	165.681	0.01466	0.00031	—	166.140
Total	0.01684	0.00842	0.14388	0.06123	0.00092	0.01163	—	0.01163	0.01163	—	0.01163	—	165.681	165.681	0.01466	0.00031	—	166.140

### 4.3. Area Emissions by Source

#### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.72854	3.72854	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.29877	0.29877	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.95651	0.90562	0.09811	10.4666	0.00045	0.00481	—	0.00481	0.00364	—	0.00364	—	27.9105	27.9105	0.00117	0.00023	—	28.0086
Total	4.98382	4.93294	0.09811	10.4666	0.00045	0.00481	—	0.00481	0.00364	—	0.00364	—	27.9105	27.9105	0.00117	0.00023	—	28.0086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.72854	3.72854	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.29877	0.29877	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.02732	4.02732	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.68046	0.68046	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05453	0.05453	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11956	0.11320	0.01226	1.30833	0.00006	0.00060	—	0.00060	0.00045	—	0.00045	—	3.16500	3.16500	0.00013	0.00003	—	3.17613
Total	0.85455	0.84819	0.01226	1.30833	0.00006	0.00060	—	0.00060	0.00045	—	0.00045	—	3.16500	3.16500	0.00013	0.00003	—	3.17613

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.72854	3.72854	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26890	0.26890	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.95651	0.90562	0.09811	10.4666	0.00045	0.00481	—	0.00481	0.00364	—	0.00364	—	27.9105	27.9105	0.00117	0.00023	—	28.0086
Total	4.95394	4.90306	0.09811	10.4666	0.00045	0.00481	—	0.00481	0.00364	—	0.00364	—	27.9105	27.9105	0.00117	0.00023	—	28.0086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.72854	3.72854	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26890	0.26890	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.99744	3.99744	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.68046	0.68046	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04907	0.04907	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.11956	0.11320	0.01226	1.30833	0.00006	0.00060	—	0.00060	0.00045	—	0.00045	—	3.16500	3.16500	0.00013	0.00003	—	3.17613
Total	0.84910	0.84274	0.01226	1.30833	0.00006	0.00060	—	0.00060	0.00045	—	0.00045	—	3.16500	3.16500	0.00013	0.00003	—	3.17613

### 4.4. Water Emissions by Land Use

#### 4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Total	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Total	—	—	—	—	—	—	—	—	—	—	—	14.3411	79.1993	93.5404	1.47542	0.03553	—	141.015
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.37433	13.1123	15.4867	0.24427	0.00588	—	23.3467
Total	—	—	—	—	—	—	—	—	—	—	—	2.37433	13.1123	15.4867	0.24427	0.00588	—	23.3467

#### 4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Total	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Total	—	—	—	—	—	—	—	—	—	—	—	11.3481	63.7027	75.0508	1.16757	0.02813	—	112.622
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.87880	10.5467	12.4255	0.19330	0.00466	—	18.6458
Total	—	—	—	—	—	—	—	—	—	—	—	1.87880	10.5467	12.4255	0.19330	0.00466	—	18.6458

### 4.5. Waste Emissions by Land Use

#### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414

Total	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Total	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	12.1339	0.00000	12.1339	1.21274	0.00000	—	42.4523
Total	—	—	—	—	—	—	—	—	—	—	—	12.1339	0.00000	12.1339	1.21274	0.00000	—	42.4523

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Total	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Total	—	—	—	—	—	—	—	—	—	—	—	73.2893	0.00000	73.2893	7.32500	0.00000	—	256.414
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	—	12.1339	0.00000	12.1339	1.21274	0.00000	—	42.4523
Total	—	—	—	—	—	—	—	—	—	—	—	—	12.1339	0.00000	12.1339	1.21274	0.00000	—	42.4523

### 4.6. Refrigerant Emissions by Land Use

#### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20659	0.20659
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20659	0.20659

#### 4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24784	1.24784
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20659	0.20659
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20659	0.20659

#### 4.7. Offroad Emissions By Equipment Type

##### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
-----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
---------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	9/30/2027	10/14/2027	5.00000	10.00000	—
Grading	Grading	10/15/2027	11/12/2027	5.00000	20.0000	—
Building Construction	Building Construction	11/13/2027	9/30/2028	5.00000	230.000	—
Paving	Paving	10/1/2028	10/29/2028	5.00000	20.0000	—
Architectural Coating	Architectural Coating	10/30/2028	11/27/2028	5.00000	20.0000	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000

Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

### 5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000

Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	—	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	132.480	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	19.6696	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	26.4960	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	—	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	132.480	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	19.6696	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	26.4960	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Apply dust suppressants to unpaved roads	84%	84%

Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

### 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	352,818	117,606	0.00000	0.00000	—

### 5.6. Dust Mitigation

#### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	15.0000	0.00000	0.00000
Grading	—	—	20.0000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	—

#### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

### 5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Apartments Low Rise	—	0%

### 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	531.983	0.03300	0.00400
2028	0.00000	531.983	0.03300	0.00400

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	1,240.00	1,240.00	1,240.00	0.00000	10.00000	5.00000	5.00000	0.00000

#### 5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	1,240.00	1,240.00	1,240.00	0.00000	10.00000	5.00000	5.00000	0.00000

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Apartments Low Rise	Wood Fireplaces	0	0
Apartments Low Rise	Gas Fireplaces	0	0
Apartments Low Rise	Propane Fireplaces	0	0
Apartments Low Rise	Electric Fireplaces	0	0
Apartments Low Rise	No Fireplaces	0	0
Apartments Low Rise	Conventional Wood Stoves	0	0
Apartments Low Rise	Catalytic Wood Stoves	0	0
Apartments Low Rise	Non-Catalytic Wood Stoves	0	0
Apartments Low Rise	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
352,818	117,606	0.00000	0.00000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	1,259,809	531.983	0.0330	0.0040	3,122,521

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	1,212,887	531.983	0.0330	0.0040	3,122,521

### 5.12. Operational Water and Wastewater Consumption

#### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	7,483,975	639,514

#### 5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	5,922,069	639,514

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	135.988	0.00000

#### 5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	135.988	0.00000

### 5.14. Operational Refrigeration and Air Conditioning Equipment

#### 5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000

Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
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5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.9600	annual days of extreme heat
Extreme Precipitation	2.05000	annual days with precipitation above 20 mm

Sea Level Rise	—	meters of inundation depth
Wildfire	7.76000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	98.6683
AQ-PM	59.5893
AQ-DPM	15.7436
Drinking Water	10.2036
Lead Risk Housing	67.7379
Pesticides	0.00000
Toxic Releases	59.9900
Traffic	14.1875
Effect Indicators	—

CleanUp Sites	0.00000
Groundwater	0.00000
Haz Waste Facilities/Generators	28.5109
Impaired Water Bodies	0.00000
Solid Waste	0.00000
Sensitive Population	—
Asthma	80.8699
Cardio-vascular	96.1117
Low Birth Weights	72.4788
Socioeconomic Factor Indicators	—
Education	87.7499
Housing	87.6933
Linguistic	79.3747
Poverty	78.9322
Unemployment	80.3878

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	6.634158861
Employed	6.159373797
Median HI	9.303220839
Education	—
Bachelor's or higher	3.079686898
High school enrollment	14.0639035
Preschool enrollment	1.873476197
Transportation	—

Auto Access	14.11523162
Active commuting	38.02130117
Social	—
2-parent households	19.59450789
Voting	2.707558065
Neighborhood	—
Alcohol availability	38.76555883
Park access	32.60618504
Retail density	23.25163608
Supermarket access	29.78313871
Tree canopy	1.206210702
Housing	—
Homeownership	31.38714231
Housing habitability	21.64763249
Low-inc homeowner severe housing cost burden	29.77030669
Low-inc renter severe housing cost burden	5.62042859
Uncrowded housing	32.32388041
Health Outcomes	—
Insured adults	8.289490568
Arthritis	11.5
Asthma ER Admissions	17.8
High Blood Pressure	8.9
Cancer (excluding skin)	60.5
Asthma	5.2
Coronary Heart Disease	9.8
Chronic Obstructive Pulmonary Disease	4.4
Diagnosed Diabetes	5.9
Life Expectancy at Birth	10.3

Cognitively Disabled	5.2
Physically Disabled	11.3
Heart Attack ER Admissions	15.2
Mental Health Not Good	6.9
Chronic Kidney Disease	5.2
Obesity	4.2
Pedestrian Injuries	19.6
Physical Health Not Good	5.0
Stroke	7.6
Health Risk Behaviors	—
Binge Drinking	83.4
Current Smoker	5.6
No Leisure Time for Physical Activity	3.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	50.1
Elderly	73.9
English Speaking	27.9
Foreign-born	61.6
Outdoor Workers	11.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.3
Traffic Density	43.9
Traffic Access	53.3
Other Indices	—
Hardship	87.7
Other Decision Support	—

2016 Voting	10.6
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### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	60.0000
Healthy Places Index Score for Project Location (b)	1.000000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.  
 b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

Measure Title	Co-Benefits Achieved
CE-2: Ensure Active Modes Access During Construction	Energy and Fuel Savings, Enhanced Pedestrian or Traffic Safety, Improved Public Health, Social Equity, VMT Reductions
CE-3: Post a Clear, Visible Enforcement and Complaint Sign	Social Equity
CE-5: Air Quality Monitoring and Response Plan	Improved Air Quality, Improved Public Health, Social Equity
PH-1: Establish Vegetative Barriers to Reduce Pollution Exposure	Improved Air Quality, Improved Ecosystem Health, Improved Public Health, Social Equity
PH-2: Increase Urban Tree Canopy and Green Spaces	Energy and Fuel Savings, Enhanced Energy Security, Improved Air Quality, Improved Ecosystem Health, Improved Public Health, Social Equity

### 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

### 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

### 8.1. Justifications

Screen	Justification
Land Use	Updated to reference the lot acreage. The building area square footage has also been updated.
Construction: Construction Phases	Demolition removed because the site is vacant
Operations: Hearths	No fireplaces or wood stoves are being proposed

### 8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	11.5000	9.40000
Building Area	sq. ft	195,040	174,231
Landscape Area	sq. ft	—	33,000.0